

Application of Dialectical Behavior Therapy to Disorders Other Than Borderline Personality Disorder: A Critical Review

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Dialectical Behavior Therapy (DBT) has recently been used to treat disorders other than Borderline Personality Disorder (BPD). Despite DBT's widespread use, no paper summarizes its use for conditions other than BPD; therefore, a synthesis of the literature is warranted. In this paper, we aim to (a) briefly summarize the treatment and its empirical basis for treating BPD; (b) explore the theoretical underpinnings of the application of DBT beyond BPD; (c) review studies that implemented DBT for other forms of psychopathology, such as eating disorders and posttraumatic stress disorder; (d) discuss DBT's use for comorbid conditions; (e) examine the applicability of components of DBT to supplement other treatments; and (f) provide a summary of the state of the literature and directions for future research. Our review suggests that although further randomized controlled studies are warranted to validate the efficacy of DBT for these and other disorders, the initial results seem promising.

Dialectical Behavior Therapy (DBT; Linehan, 1993a; 1993b) was originally developed to treat severe behavioral manifestations of Borderline Personality Disorder (BPD), such as emotional instability, suicidality, and parasuicidal acts (Diagnostic and Statistical Manual of Mental Disorders 4th edition [DSM-IV]; American Psychiatric Association [APA], 1994). This comprehensive cognitive-behavioral treatment (CBT) package was originally developed to meet the intense treatment needs of those with BPD, as well as to rectify previous snares in the therapeutic thread associated with treating this disorder. Prior to the development of DBT, there was a lack of empirically supported therapies for this hard-to-treat condition (Scheel, 2000). In fact, in a review of empirically supported treatments, DBT was the only therapeutic method categorized as "probably efficacious" for treating BPD; no treatments were placed in the "well-established" category (Crits-Christoph, Frank, Chambless, Brody, & Karp, 1995). According to standards from the clinical psychology division of the APA, DBT warrants the label "empirically supported" based on the outcome data from randomized controlled trials (RCTs) conducted with BPD women (Robins & Chapman, 2004). DBT remains the only data-supported outpatient treatment for BPD.

Since the development of DBT, numerous randomized clinical trials have supported its efficacy for the treatment of BPD, and several review papers summarize this literature (e.g., Westen, 2000). We begin with a brief synopsis of the treatment package and a summary of the existing empirical

support. Recently, DBT has been used to treat a wide range of mental health phenotypes, and to date, a comprehensive review of this literature does not exist. Therefore, in this paper, we aim to (a) briefly review the treatment and its empirical basis for treating BPD; (b) explore the theoretical application of DBT beyond BPD; (c) review studies that implemented DBT for other forms of psychopathology, such as eating disorders and posttraumatic stress disorder (d) discuss DBT's use for comorbid conditions; (e) suggest the possibility of supplementing other treatments with components of DBT; and (f) provide an overall summary of the state of the literature and future directions for research.

Dialectical Behavior Therapy: An Introduction

Biosocial Theory

From a DBT perspective, the clinical presentation of BPD is conceptualized through a biosocial lens (Linehan, 1993a; 1993b). A biosocial theory of BPD demands attention to the joint outcome of biological disposition, environment, and the transaction between the two during one's early learning history. It is posited that BPD individuals possess a biological vulnerability resulting in deficits in the emotion regulatory systems; specifically, an overactive limbic system (Davidson, 1998). This over-activation of the limbic system is believed to predispose individuals to emotional vulnerability manifested by high sensitivity to emotional stimuli, elevated emotional intensity, and a slower return to baseline following emotional arousal (Linehan, 1993a). In addition to the biological predisposition, BPD individuals often have invalidating environments in their

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formative years. From the biosocial perspective (Linehan, 1993a), the environmental insult could be physical (e.g., sexual abuse, physical abuse, neglect) or emotional (e.g., emotional abuse, invalidation). The theory posits that the diathesis of biological vulnerability in combination with an environment that is erratic, abusive, and unpredictable, leads to the failure to learn adaptive means of regulating one's emotions, which is one of the hallmark symptoms of BPD. This emotion modulation skills deficit has far-reaching effects, and individuals with this condition also have extreme difficulty expressing their inner experiences. Additionally, the biosocial theory suggests that the expression of emotions may be met by responses indicating that they are invalid, which leads the individual to believe that their emotions are not accurate representations of the truth and therefore, cannot be trusted. Over time the biological deficit and the invalidating environment influence and exacerbate each other, making emotion dysregulation progressively more pervasive.

The Creation of DBT

DBT was tailored to address three pitfalls common in the treatment of this population (Linehan, 1993a). The first difficulty was treatment dropout or lack of therapeutic alliance due to therapists' concentration on change. Traditionally, CBTs focused on change, which many BPD clients perceived as invalidating. To address this, acceptance-based interventions, which are often referred to as validation techniques, were added. Theoretically, radical acceptance imparts to the client a message that the client is doing the best that can be expected given his or her situation. One main job of the therapist is to search for aspects of truth in the client's response, which may at face-value, appear irrational and unfounded, and communicate this truth to the client as a form of validation. The role of validating the truth in a client's situation engendered the adage that one must accept before one can change.

The second difficulty was that BPD clients presented with many crises that demanded attention, as the crises were often of a life-threatening nature. Because crisis management was the top priority, therapists did not have adequate time to address skill building, which would enable long-term change. Group skills training sessions were thus added to teach and practice skills; this allowed for individual therapy sessions devoted to the application of skills.

The third difficulty was that clients were inadvertently reinforcing the delivery of iatrogenic treatment (e.g., they were reinforcing the therapist for avoiding the discussion of their suicide and parasuicide attempts). Linehan's research team coded standard cognitive-behavioral therapy sessions with BPD clients and found that clients were reinforcing the therapist (e.g., positively by increased participation, negatively by halting attacks on the therapist) for switching from heated topics to more neutral topics. Further, it was found that clients would punish the therapist for application of effective treatment strategies (e.g., self-harm after the

therapist does not comply with client demands such as longer treatment sessions). In response to this pattern of unintentional reinforcement, DBT instilled a structure of treatment that reinforces the client for engaging in therapeutic enhancing behaviors, thereby enhancing both the clients' and therapists' abilities. DBT was thus developed from these modifications to standard cognitive-behavioral treatment.

East Meets West – The Dialectic

As it is a form of CBT, DBT utilizes many change principles that are common to other CBTs such as contingency management, behavior analysis, exposure, problem solving, and cognitive restructuring (Linehan, 1993a; 1993b). Acceptance strategies are based on eastern Zen contemplative studies and include mindfulness, assuming a non-judgmental stance, and validation tactics (Dimeff & Linehan, 2001). As the word 'dialectic' refers to the synthesis of two opposites, the addition of acceptance principles to a change oriented CBT not only afforded the name, but also forms the foundation of DBT. Of note, the two opposites—acceptance and change—are not applied at the exclusion of the other. Rather, the two poles are used in concert to achieve the goal of DBT: to build a life worth living. The primary tension within and across treatment sessions is to accept the client as he or she is (i.e., validating the client) while concurrently promoting change.

Treatment Modalities

Comprehensive psychotherapy, according to Linehan (1993a), must serve five functions: (a) foster the client's motivation to change, (b) develop the client's resources and skills, (c) allow for generalization of treatment effects to the client's natural contexts, (d) configure the therapeutic environment such that the client's and therapist's competences are fostered, and (e) cultivate and maintain the therapist's ability and desire to provide effective therapy. There are four treatment modes that serve the functions of DBT (Linehan, 1993a). One treatment modality is individual psychotherapy, which typically entails 50-minute weekly sessions. Individual therapy serves to increase the client's motivation and ability to change (Dimeff & Linehan, 2001). A second modality is group skills training, on average meeting for two and a half hours weekly to foster skill building. Phone consultation is another mode, used at the client's will and serving to enhance skill application during crises. Last, there is the therapist consultation team, held weekly or bi-weekly, to provide DBT therapists with peer supervision and support. In addition to helping to prevent therapist burnout, it also assists in adding treatment integrity, as therapists are reviewed on their adherence to the principles of treatment. DBT encompasses this entire treatment package. Although Linehan hopes to conduct dismantling studies to ascertain specific component effectiveness,

the empirical support for DBT with BPD presently applies to the inclusion of all four treatment modalities.

One of the main problems with traditional treatments for those with BPD has been that each therapy session serves only to manage the crisis of the moment; in contrast, there is structure imposed to the progression of DBT that is theoretically grounded in logical and behavioral principles (Linehan, 1993a). Individual therapy within DBT is organized into four stages. Within stage one there is a hierarchy of priorities that structures each session, all aimed at moving from behavioral dysregulation to regulation. The basis of stage one is to increase safety by decreasing life-threatening behaviors; a life worth living can only be built if the client is indeed alive. Suicide and parasuicide, which is self-harm without intent to die, are addressed first. A thorough discussion of these serious behaviors is beyond the scope of this paper; the reader interested in learning more about the treatment of parasuicide and suicide behaviors is referred to the manual (Linehan, 1993b). The second priority is to decrease behaviors that interfere with the progression of therapy, such as missed appointments and failure to complete homework. The third priority is to decrease behaviors that interfere with the client's quality of life. The last priority is to increase skills to enhance the client's life. This structure is intended to reinforce non-parasuicidal behavior. If the client does not engage in parasuicidal behavior, functional analyses of said behaviors do not need to occur, and the client's session time is left for discussion of issues of the client's choosing.

Stage two addresses the client's emotional suffering that likely still exists despite the behavioral control gained through stage one. During this stage, issues such as post-traumatic stress are attended to. Stage three is aimed at problems in living and attaining normal emotional experiences, both positive and negative. This stage is likely the most similar to standard outpatient treatment. Stage four, which not every client enters, aims to help with insight building, spiritual connectedness, and to further life satisfaction.

Group Skills Training

Overall, the purpose of skills training is to cultivate and refine skills in modifying maladaptive ways of behaving, thinking, and experiencing emotions (Linehan, 1993b). Four modules of skills are taught in DBT group skills training. Each module was designed to ameliorate a behavioral deficit or symptom often found in BPD. First, the mindfulness module was created to address difficulties in maintaining a sense of self, feelings of emptiness, and cognitive aberrations such as dissociation. Second, the interpersonal effectiveness module centers on the chaotic interpersonal relationships that are often present in the lives of BPD individuals. Third, the emotion regulation module was tailored to manage volatile affect, another characteristic of the disorder. Lastly, the distress tolerance module was created due to the impulsive and self-destructive nature of BPD; it was

meant to provide clients with alternate behaviors that are not of a destructive nature in the face of stress. In manualized DBT, skills groups cycle through all four modules twice because many clients are too behaviorally and emotionally dysregulated at the beginning of treatment to incorporate new proficiencies. It has been demonstrated that memory and comprehension are dampened by intense emotion (Richards & Gross, 2000). Subsequently, clients may be in a more regulated state the second time around, after being in treatment for 6 months, and likely retain more than they did at first exposure. Though the modules were created to treat specific behavioral difficulties pertaining to both BPD and an array of other psychological disturbances, they are also successful in refining skills of well-functioning individuals. In fact, skills trainers have been found to personally benefit from learning the DBT modules (M. M. Linehan, personal communication, August, 2005).

Efficacy of DBT for BPD

DBT as an outpatient treatment for a primary diagnosis of BPD has been examined in six RCTs (Koons, et al., 2001; Linehan, Armstrong, Suarez, Allmon, & Heard, 1991; Linehan, Schmidt, Dimeff, Craft, Kanter, & Comtois, 1999; Linehan, Dimeff, Reynolds, Comtois, Shaw Welch, & Heagerty, et al., 2002; Turner, 2000; Verheul, van den Bosch, Keoter, De Ridder, Stijnen, & van den Brink, 2003) in addition to a two year RCT follow-up of DBT as therapy for suicidal behavior and borderline personality disorder (Linehan, et al., 2006). Women ranging in age from 18 to 70 who met criteria for BPD served as participants in all of the RCTs. In three studies, the participants were also substance dependent (Linehan et al., 1999; Linehan et al., 2002; Turner, 2000). Across studies, DBT was associated with decreased parasuicidal behaviors, medically severe parasuicidal behaviors, inpatient days, and treatment dropout, and increased global and social adjustment as compared to the control group, which were either treatment as usual community treatment by experts (Linehan et al., 2006), or client centered therapy (Turner, 2000). Furthermore, these group differences were by and large maintained one year post-treatment (e.g., Linehan, Heard, & Armstrong, 1993). In sum, these investigations support the efficacy of DBT for this population. Notably, support for DBT has been yielded from the Linehan lab as well as from other research groups.

Application to Other Disorders

DBT was designed to treat borderline patients, and its effectiveness has primarily been studied in regards to that disorder. Clearly, sufficient empirical support for generalization of treatment efficacy is needed prior to DBT being adopted as a treatment for other disorders. Yet, from a theoretical perspective, sufficient support exists to warrant the study of this treatment for other disorders. Our review of

the literature has afforded four theoretical reasons to support the study and perhaps subsequent implementation of DBT to populations other than BPD. First, given the robust treatment effects found with such a difficult-to-treat population, it is likely that DBT might be even more effective for less clinically severe client populations. Second, given DBT's ability to positively affect outcome variables such as impulsivity, disruptive behavior, distress, and depression in BPD clients (e.g., Linehan et al., 1991), it can be hypothesized that DBT will also be effective in treating these discrete behaviors in clients with other disorders. Third, a core component of DBT is skills training and, independent of diagnosis, adaptive coping skills may be beneficial for clients to learn (Lynch, 2000). Fourth, and perhaps most importantly, is the concept of emotion regulation. Dysfunctional behaviors present across diagnoses can be thought of as maladaptive coping skills or poor attempts at emotion regulation. For example, binge eating, substance abuse, and parasuicidal behavior can all be conceptualized as emotion regulation attempts (Telch, Agras, & Linehan, 2000). Following this line of reasoning, DBT has recently been applied to other disorders (e.g., eating disorders, depression) in which affect regulation is an issue.

Eating Disorders

In clinical practice, DBT has been used to treat many categories and variants of eating disorders (McCabe & Marcus, 2002), including bulimia (Safer, Telch & Agras, 2001), binge eating disorders (BED) (Telch et al., 2001), and comorbid BPD and eating disorders (Palmer, Birchall, Damani, et al., 2003). Binge eating disorder (BED) to date is the only eating disorder in which systematic outcome studies have been conducted (i.e., Telch et al., 2001), and results from these studies have provided promising empirical support for the use of DBT over treatment as usual.

From a theoretical perspective, many lines of reasoning suggest that DBT would be effective in treating eating disorders. One such angle concerns the similarities between BPD and eating disorders. A hallmark symptom of BPD is life-threatening behaviors (i.e., suicide attempts, parasuicide); similarly, symptoms of eating disorders may be life-threatening. Specifically, a main criterion for anorexia nervosa is being less than 85% of expected weight, which presents a health risk (APA, 1994). Further, purging behavior, which may be present in both anorexia and bulimia, has been shown to have detrimental health effects (Safer et al., 2001). DBT has specific strategies to decrease life-threatening behaviors. Another similarity between BPD and eating disorders is ambivalence. A common dialectic is that clients fear living with the disorder for life while simultaneously fearing change. McCabe and Marcus (2002) noted that clients with anorexia nervosa are often initially resistant to therapy and have difficulties maintaining treatment gains. Specific techniques in DBT have been designed to work with ambivalence without resulting in invalidation of the client's perspective (Linehan, 1993a). Techniques such

as using pros and cons, devil's advocate, and a myriad of social psychological principles of persuasion center on the balance of acceptance and change, with a constant focus on commitment (Linehan, 1993a).

Another similarity between DBT and eating disorders is what Linehan terms "apparent competence" (Linehan, 1993a). This term suggests that BPD clients are often composed on the exterior and suffering internally. Likewise, McCabe and Marcus (2002) noted that clients with eating disorders are often successful and intelligent. In other words, clients appear competent, but have basic deficits at regulating their painful inner experiences, creating a discrepancy that engenders more distress. To counteract this discrepancy, DBT has been developed from a skills deficit perspective and therefore addresses ostensible competence by providing basic skills training to all clients. A fourth similarity between work with BPD clients and eating disorders clients concerns therapist's reactions, including burn-out and emotional over-involvement. Mortality may occur, which can be difficult for therapists to accept. The consultation team in DBT provides support for therapists and ensures treatment credibility (Linehan, 1993a); like BPD therapists, eating disorders therapists would most likely benefit from such consultations. Lastly, and perhaps most importantly, an emotion regulatory function of maladaptive behaviors may be a common similarity between BPD and eating disorders. This is best explicated by examining binge eating disorder (BED).

BED, a condition in which an individual consumes a markedly large amount of food in a small amount of time without compensatory behaviors (APA, 1994), has been theoretically conceptualized from two standpoints. One is housed within general CBT theory, assuming that BED results from extreme attempts at weight control and dieting; a cyclical pattern is thought to occur from extreme deprivation to extreme eating episodes (Wilfley & Cohen, 1997). BED has been treated with standard CBT, yet some afflicted with the disorder do not show improvement (Telch, et al., 2001).

A second theoretical account of BED, which is rapidly accumulating empirical support, frames binge eating as an attempt to regulate negative emotions. From this perspective, binge eating serves as a reinforcing agent, as negative emotions are temporarily relieved (Heatherton & Baumeister, 1991). For example, in a recent study of women with BED, negative mood induction led to an increase in binge eating, which then led to a decrease in the elicited emotion (Telch & Agras, 1996); results implied that binge eating was reinforced as an emotion regulatory strategy. In this manner, binge eating can be conceptualized as a similar behavior to regulatory behaviors in BPD, such as parasuicide. Wisner and Telch (1999) posited that in both disorders, negative emotional states are viewed as unbearable and are therefore followed by maladaptive modification attempts. In her work with BPD patients, Linehan (1993a; 1993b) adopted a deficit approach and argued that BPD individuals lack sufficient ability to regulate their volatile emotional

states adaptively. Similarly, Wisner and Telch (1999) stated that BED clients lack ample skills to regulate their emotions.

An adaptation of the DBT protocol to treat BED is a natural fit: nearly half of clients with this disorder are treatment resistant (Wilfley & Cohen, 1997), and binge eating can be viewed as a regulatory behavior (Telch & Argas, 1996). An uncontrolled pilot study, using a modified version of Linehan's (1993b) protocol, was conducted to investigate the possible usefulness of DBT for this population (Telch et al., 2000). DBT skills were tailored to BED to constitute a 20-session group therapy protocol. Only group skills training sessions were conducted; individual therapy sessions, phone consultation, and consultation groups were not included. Tenets of DBT were customized for this program; instead of a traditional order of topic discussion (life-threatening, therapy interfering, etc.), this program instilled a hierarchy fitting BED. The hierarchy was as follows, in order of decreasing severity: treatment interfering behavior, binge eating, mindless eating, preoccupation with food, capitulating, and irrelevant behaviors (e.g., behaviors that make bingeing more likely). During each session, clients were encouraged to discuss their most severe behavior on this hierarchy.

Mindfulness skills were thought to address the central assumption that binge eating occurs due to a negative emotional arousal coinciding with a lack of emotional control (Wisner & Telch, 1999). If binge eating is repeatedly occurring to avoid emotional experiencing, it may become an automatic response to negative emotional arousal. Mindfulness, by definition, increases awareness of emotions and experiences and suggests a nonjudgmental stance towards internal experiences (Linehan, 1993a; 1993b). Therefore, it is believed that mindfulness may break the association between negative emotional states and binge eating. Teaching clients to focus on their experiences connects them to their internal experiences and provides behavioral evidence that they can, in fact, sit with "intolerable" emotions. Further, the nonjudgmental stance serves to decrease possible emotional reactions to binges, such as shame or guilt, which may trigger more distress and more bingeing episodes. The emotion regulation module was thought to increase emotional awareness and to teach clients more adaptive means of dealing with their emotional experiences, replacing bingeing. These skills were thought to not only help in the short term, but also to be prophylactic in that they likely decrease negative emotions and increase positive emotions, thereby making the conditions in which bingeing occurs less frequent. Distress tolerance skills were taught to address coping with circumstances not able to be changed. For those with BED, the key of this module was to increase tolerance of internal or external events that may be triggers for bingeing without engaging in the maladaptive behavior. The interpersonal effectiveness module in the original DBT protocol was not utilized.

Eleven women with BED served as participants in this uncontrolled pilot study of DBT (Telch et al., 2000); all

eleven women completed treatment and, under the protocol outlined above, positive effects were found. Post-treatment data indicated that binge eating ceased (i.e., no episodes for four consecutive weeks) in 82% of participants and that, on average, emotion regulation skills improved. Therapeutic gains were maintained at three- and six-month assessments.

Due to the promising outcome of the uncontrolled trial, an RCT was conducted to further ascertain the efficacy of DBT for BED (Telch, et al., 2001). Female BED patients, randomly assigned to DBT or wait-list, served as subjects. Groups, each of which consisted of 22 patients, did not differ on demographic variables, binge eating severity, self-esteem, depression, or mood regulation at pre-treatment. The DBT condition entailed 20 sessions of group skills training using a protocol identical to the one used in the uncontrolled trial (Telch et al., 2000). Following the completion of treatment, those in the DBT condition had significantly fewer days of binge eating and fewer binge episodes than did those in the wait-list condition. In fact, a large percentage of those in the DBT condition (89%) did not have any binge eating for four weeks straight, whereas only a small percentage (13%) of those in the wait-list condition met this criterion. DBT was also associated with lower concerns about weight, shape, and eating. Furthermore, treatment decreased the participants' urges to eat to regulate their anger. At the three- and six-month follow-up, respectively, 67% and 56% of DBT participants continued to abstain from binge eating. Following the completion of treatment for the DBT condition, 14 of the 22 participants in the wait-list condition accepted the offer to begin DBT treatment. Of these participants, 90% had ceased binge eating at treatment completion, and 80% and 67% maintained this status at the three- and six-month follow-up, respectively.

Theoretically, DBT might be effective for the treatment of BED as it teaches more adaptive emotion regulation skills, thereby providing alternative behaviors to binge eating for regulating emotion. If DBT was effective, therefore, it would be expected that decreased negative affect and increased emotion regulation skills would be present post-treatment. Partial support for this hypothesis was observed. DBT's superiority to no-treatment in reducing binge eating seemed to be moderated by DBT's reduction of patients' urges to binge eat when angry, though not their urges to eat when anxious or depressed. Furthermore, lower depression scores were not found post-treatment. In sum, DBT may be effective due to providing alternative skills at regulation of specific emotions, such as anger. Though DBT yielded a higher percentage of treatment responders than reported in previous CBT trials for BED (Wilfley & Cohen, 1997), future research should directly compare CBT with DBT. Additionally, implementing the other components of DBT, such as phone consultation, may further add to treatment gains and should be studied.

Extending DBT's applicability to other eating disordered patients, Palmer et al. (2003) conducted an uncontrolled outcome study with women having comorbid diag-

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noses of BPD and an eating disorder (n=7), although their exact diagnoses were not provided in the article. After 18 months of standard DBT, no client met criteria for a specific eating disorder, although 4 clients met criteria for eating disorder not otherwise specified. Furthermore, self-harming behaviors decreased, as did hospitalizations. Although this study has notable limitations, such as lack of a control group, inadequate reports of diagnoses, and inadequate outcome variables, results suggest the usefulness of DBT to treat those with comorbid BPD and eating disorders.

Geriatric Depression

Although there is evidence of pharmacotherapeutic effectiveness for some elderly individuals with depression, many individuals do not respond to behavioral, cognitive, or brief psychodynamic psychotherapy. For example, in one study, approximately 30% of elderly adults with depression did not respond to treatment (Thompson, Gallagher, & Breckenridge, 1987). Furthermore, elderly adults are the most likely age group to complete a suicide (McIntosh, 1992). DBT has been demonstrated to be effective with hard-to-treat clients, particularly those at risk of suicide (Linehan, Cochran, & Keltner, 2001), and for this reason, it may be an effective treatment for the depressed elderly.

Following these reasons, Lynch, Morse, Mendelson, and Robins (2003) sought to test the efficacy of an adapted DBT program for depressed geriatric clients. According to Lynch (2000), the main difference between standard DBT and DBT for depression is that the latter focuses on behaviors functionally pertinent to depression, including inflexible coping and dependency. Several modifications to the standard DBT protocol were made. In standard DBT, weekly individual sessions occur in conjunction with phone consultation throughout the week (Linehan, 1993a; 1993b). Lynch and colleagues (2003) combined these two components to create scheduled weekly 30-minute phone consultations. This adaptation attempted to decrease the clients' dependency on the therapist and to reduce travel for a population where mobility may be a concern. Second, the skills group met weekly for two-hour sessions; all four modules of skills were taught and were tailored to late-life depression. For example, the mindfulness module entailed a psychoeducational component on late-life depression with a focus on radical acceptance (e.g., accepting physical declines that cannot be changed); the emotion regulation module focused on behavioral activation, which in DBT terms is opposite to emotion action; the distress tolerance module had a focus on tolerating physical pain; and the interpersonal effectiveness module focused on decreasing dependency, saying no, and effectively asking for assistance when needed. All skill modules were taught twice within the 28 weeks of treatment.

Thirty-four individuals (85% female) over the age of 60 who met criteria for unipolar depression served as participants (Lynch et al., 2003). Participants were randomly

assigned to a medication-only condition or to a DBT plus medication condition. All participants were on an antidepressant prescribed by a physician; the majority of participants received a selective serotonin reuptake inhibitor. Following treatment, both groups showed significant decreases in interviewer-assessed depression, but only the DBT group showed a significant decrease in depression on self-report measures. At treatment completion, 71% of the DBT participants were in remission, compared to 47% of the medication-only participants. Six months following treatment, significantly more DBT participants (75%) were in remission as compared to medication-only participants (31%). Furthermore, post-treatment, only DBT participants showed significant increases in active coping and decreases in dependency and sociotropy. Taken together, the data from this study indicate that a modified DBT program may be a beneficial extension to medication treatment for the depressed elderly.

This study's findings, that DBT and medication decreased depression to a greater extent than medication alone, is at odds with findings regarding DBT for BPD clients, where DBT typically decreases depression, but not to a greater degree than the comparison treatment (e.g., Linehan et al., 1991). Perhaps one year of treatment for personality disordered clients moves them through stage one (i.e., decreases behavioral dysregulation) and stage two (i.e., decreases "silent suffering" such as PTSD), but does not always entail reaching stages three and four (i.e., engendering normal emotional experiencing, and greater spiritual advancement, respectively). It is possible that Lynch et al.'s (2003) findings of a group difference in depression might be accounted for by the fact that the depressed elderly clients possess a higher level of socioemotional functioning than BPD clients. In other words, perhaps DBT for clients without such extreme difficulties may move quickly through stages one and two, leaving more time for stage three in which depression is addressed.

Multi-disordered Clients

In addition to its application to eating disorders and geriatric depression, DBT has been used in treating multi-disordered clients. Spont, Sayer, Thuras, Erbes, and Winston (2003), in a largely descriptive article, discuss the application of DBT to a Veterans Affairs (VA) medical center. The authors note that there are two populations within a VA center that are not adequately served: women and treatment-resistant men. Women, many of whom have been sexually victimized while in the military (Coyle, Wolan, & Van Horn, 1996), were traditionally sent to group counseling with predominantly male group members (Spont et al., 2003). Although significant effort is put into treating combat-related PTSD, there remains a group of treatment-resistant veterans who are chronically ill. DBT was thought to be the treatment of choice, as these treatment resistant veterans shared characteristics with BPD individuals. These common characteristics included excessive hospitalization

history, substance abuse, impulsiveness, mood volatility, and interpersonal turbulence (Rosenheck & Fontana, 1999). A DBT program was implemented to treat these two populations. Modifications to Linehan's (1993a; 1993b) protocol were made, including holding phone consultations only during business hours, providing a skills tutor for cognitively disadvantaged clients, creating a "step-down" group for graduated clients needing more services, and changing the length of skill group training sessions to 90 minutes over a period of 3, rather than 6, consecutive months. In an informal outcome survey, most clients and therapists reported that DBT was helpful (i.e., they derived at least some overall benefit from the treatment). No gender differences in reaction to the treatment were found.

Integration of DBT Techniques into Existing Treatments

DBT was created to treat the multifaceted symptoms from which BPD clients suffer; as a result, in addition to its overall effectiveness as a treatment package, DBT has specific components that can be applied to existing treatments. As BPD clients posed such a clinical challenge, Linehan's experience treating them has afforded a number of techniques to ensure client participation and retention (1993a). A number of clinical researchers and therapists have written about implementing aspects of DBT (i.e. modifying action tendencies) into existing evidence-based treatments (e.g., Barlow, Allen, & Choate, 2004). Alternatively, many have suggested broadening the scope of DBT to cover multiple impulse control disorders, including, but not limited to, substance abuse and binge eating disorders (van den Bosch, Verheul, Schippers, & van den Brink, 2002).

Exposure treatment for Posttraumatic Stress Disorder (PTSD) will be used to demonstrate the supplementation of DBT components to facilitate treatment. Exposure therapy is an empirically supported treatment modality for PTSD sufferers (e.g., Foa & Kozak, 1986). Despite the support for this treatment, a number of issues exist that can pose barriers to successful outcomes and may lead to an arduous process for both therapist and client. First, at the beginning of treatment, clients tend to display an increase rather than a decrease in symptoms (Resick & Schnicke, 1992). DBT strategies taught in the distress tolerance and emotion regulation modules could benefit clients dealing with increased symptomatology during the beginning stages of treatment. PTSD clients could be taught how to tolerate distress that they cannot change, and how to regulate their emotions surrounding aspects in which they do have a choice. Second, perhaps also related to symptom exacerbation prior to symptom improvement, client retention is an issue. DBT has specific techniques, based in social psychological principles of persuasion, to obtain and maintain commitment. Such strategies may improve retention for exposure therapy clients. Third, emotional experiencing, in the form of activation of the fear structure, is a necessary ingredient for

exposure treatment to be effective (Foa & Kozak, 1986); PTSD clients may have dissociative tendencies (Resick & Schnicke, 1992) circumventing emotional experiencing. Teaching clients mindfulness skills such as observation and participation in emotional experiences could enhance emotional experiencing and thereby possibly make exposure more effective. Fourth, there is recent evidence that numbing symptoms in PTSD may be a result of emotional avoidance, suggesting faulty emotion regulation (Roemer, Litz, Orsillo, & Wagner, 2001). Teaching clients the emotion regulation module of DBT may afford them with alternative, and more adaptive, skills to use in this arena.

There are other principles of DBT not necessarily related to exposure that may be advantageous for those with PTSD; one such issue involves treatment timing (Becker & Zayfert, 2001). Stage one of DBT focuses on behavioral regulation. If a client with PTSD has a chaotic life and is dysregulated, going forward with exposure techniques may not be the best option, as they may elicit more distress. Such clients may benefit from sessions addressing dysregulation prior to the commencement of exposure. Another concept from DBT that can be applied to PTSD is that of radical acceptance (Becker & Zayfert, 2001). Working with PTSD clients through a radical acceptance framework helps patients recognize that while the trauma cannot be undone, the emotional reactions to the trauma can be modulated. Additionally, DBT has an emphasis on treating self-invalidation, a behavior often present in PTSD clients. From a DBT framework, educating the client on ways in which he or she invalidates his or her experience would be a useful part of treatment. It should be noted that these concepts and techniques are not distinct to DBT, as DBT is a theoretically grounded approach that has common factors with other treatments as well.

In addition to its relevance to PTSD, DBT has been applied to substance abuse treatments. In a recent study of BPD women who are also substance dependent, DBT was associated with significantly less substance use throughout the course of treatment, as well as at follow-up (Linehan et al., 1999). However, another study found that though DBT could be effectively applied with borderline patients who had co-occurring substance abuse problems, this treatment was not more successful compared to standard cognitive behavioral therapy in reducing the substance use (van den Bosch et al., 2002). This discrepancy may arise from the fact that the Linehan group focused treatment primarily on the substance abuse, while the van den Bosch group focused primarily on BPD. From their results, van den Bosch and colleagues (2002) conclude that the current version of DBT does not generalize to behavioral domains not specifically targeted. However, they do support the idea that developing a multitargeted DBT program would broaden the focus of treatment to include a wide range of impulse control disorders, such as binge eating and substance abuse.

APPLICATION OF DBT BEYOND BORDERLINE PERSONALITY DISORDER

Conclusion

The DBT literature as a whole is encouraging, especially given its relatively recent development. DBT has only existed for about 13 years, and within that time, six RCTs with BPD clients have been conducted, producing promising results of the treatment's efficacy (Koons et al., 2001; Linehan et al., 1991; Linehan et al., 1999; Linehan et al., 2002; Turner, 2000; Verheul et al., 2003). All six RCTs with BPD clients have demonstrated that DBT is more effective than the comparison treatment on a variety of outcome measures, such as decreasing parasuicidal behavior, inpatient days, hopelessness, and even substance use; these positive treatment effects were maintained at follow-up assessments (e.g., Linehan, Heard, & Armstrong, 1994). Further, numerous uncontrolled clinical trials have been published, and countless case studies continue to emerge (e.g., Katz & Cox, 2002).

DBT has been successfully applied to disorders other than BPD. In regards to eating disorders, theoretical (e.g., McCabe & Marcus, 2002; Wiser & Telch, 1999) and empirical (e.g., Palmer et al., 2003; Telch et al., 2000; Telch et al., 2001) support exists to suggest DBT may be an advantageous treatment. BED is the only eating disorder with both uncontrolled and controlled clinical trials for DBT. In the RCT for BED, a treatment comparison group was not included, and should be in subsequent research. Systematic DBT studies should be conducted with both anorexia nervosa and bulimia nervosa to determine the usefulness of this treatment for these disorders. In addition to eating disorders, DBT has also been shown to be more effective in treating late-life depression than medication alone (Lynch et al., 2003). Furthermore, DBT has been adapted to VA settings in which clients present with a number of BPD features (Spont et al., 2003).

In sum, the current state of the literature suggests that DBT is an empirically supported treatment for BPD. Additionally, there is limited evidence to suggest that DBT is an effective treatment for BED and geriatric depression. To date, DBT has only been studied as a treatment package. Therefore, though there are theoretical reasons to supplement existing therapies with DBT components, the effects of augmentation still require empirical validation. The apparent applicability of DBT for disorders outside of BPD has surpassed the empirical evidence to support the efficacy of such approaches, underscoring the need for more research.

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