Graduate Student Journal of Psychology
2008, Vol. 10

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Teachers College, Columbia University
ISSN 1088-4661

Dialectical Behavior Therapy: An Effective Treatment for Individuals with Comorbid Borderline Personality and Eating Disorders?

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Patients with either or both Borderline Personality Disorder (BPD) and an eating disorder face a number of intrapsychic and interpersonal difficulties that have been historically treatment resistant. Dialectical Behavior Therapy, which combines elements of cognitive behavioral therapy and Zen practices, has shown some promise as a potential treatment for patients with comorbid personality and eating disorders. Criticisms of DBT include the limited number of randomized, controlled trials examining the efficacy of the treatment, small sample sizes, and as of yet no clear understanding of the specific mechanisms of action. These limitations aside, DBT is the only treatment considered empirically supported for use with patients who have BPD. The focus on acceptance in the present moment may be particularly beneficial for patients with eating disorders, especially in light of their characteristic lack of acceptance of their bodies. Given the promising results in reducing self-harming behaviors among patients with BPD, further study of this therapy for those with both personality and eating disorders is warranted.

Borderline Personality Disorder (BPD) is characterized by a pervasive pattern of emotional and interpersonal instability, impulsivity, and fears of abandonment (American Psychiatric Association, 2000). Borderline individuals tend to engage in behaviors that are potentially self-damaging, which can include binge eating, substance abuse, reckless driving or unsafe sex, as well as self-mutilating or suicidal behavior. Most (75%) of patients with BPD are female, and the prevalence of the disorder is estimated to be about 2% of the general population, 10% of psychiatric outpatients, and up to 20% of psychiatric inpatients. Between 30 and 60% of patients with personality disorders meet criteria for BPD (American Psychiatric Association, 2000).

Linehan (2000) describes BPD as a persistent and severe mental disorder with poor outcomes following the use of traditional treatments, and hypothesizes that the disorder arises from a tendency toward emotionality that is shaped by an invalidating environment (Linehan, 1993a). BPD is characterized by high rates of psychiatric hospitalization and serious risk of suicide. Between 60 and 80% of patients with BPD engage in parasuicidal or self-injurious behavior at some point in their lives and there is often little change in level of functioning or rates of psychiatric hospitalization up to 5 years after treatment (Linehan & Heard, 1999).

Patients with BPD present unique challenges to therapists. These include high rates of noncompliance with treatment, the tendency to misuse medications, poor outcomes with even intensive psychotherapy, high rates of parasuicidal behavior, high rates of psychological comorbidity, and tendencies to engage in hostile behaviors toward their therapists (Linehan, 2000). BPD is considered substantially comorbid with both Axis II (e.g., histrionic personality disorder), and Axis I disorders (e.g., mood disorders, substance related disorders), including eating disorders, and is less responsive to pharmacotherapy than many other psychological illnesses (American Psychiatric Association, 2000; Clarkin, Levy, Lenzenweger, & Kernberg, 2004). For those borderline patients who have comorbid eating disorders, treatment is often more difficult and prognosis poorer than for those patients with BPD or an eating disorder alone (Palmer, Birchall, Damani, Gatward, McGrain, & Parker, 2003). Thus, it is essential to find a treatment that will address adequately the specific needs and challenges of these patients. This paper will review and summarize the research findings and limitations related to a Dialectical Behavior Therapy (DBT) as a potential treatment for those with this comorbid BPD and eating disorders.

Comorbidity of Eating Disorders and BPD

Both clinical observations and empirical research suggest that personality disorders (PD) are more common among patients who have eating disorders than those who do not have an eating disorder diagnosis (Livesley, Jang, & Thordarson, 2005; Sansone, Levitt, & Sansone, 2005). Conversely, eating disorders also appear to be more prevalent in patients with personality disorders, and are more common in patients with BPD than in patients diagnosed with other personality disorders. Reported prevalence rates

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of co-occurrence vary widely, ranging from 27 to 93%, with bulimia and the binge-eating/purging subtype of anorexia being the eating disorders most commonly comorbid with BPD (Livesley et al., 2005; Sansone et al., 2005). Related to the above, BPD is the most frequent Axis II disorder diagnosed in patients with bulimia nervosa, with a prevalence rate of over 28%, and it is also the most frequent personality disorder diagnosed among those with the binge-eating/purging subtype of anorexia at a rate of 25% (Sansone et al., 2005). In these two types of eating disorders, impulsivity is expressed via the behaviors of binge eating and purging. In addition, though obsessive-compulsive personality disorder is the most common Axis II diagnosis in individuals with binge eating disorder, BPD makes up approximately 12% of the Axis II diagnoses in those with this type of eating disorder (Sansone et al., 2005).

Outcomes in Patients with Dual Diagnoses

Patients who have both an eating disorder and a comorbid personality disorder tend to have poorer overall psychotherapy treatment outcomes and prognoses (Palmer et al., 2003), though it is unclear whether this relates to eating disorder symptomatology or other psychiatric symptoms found in individuals with both diagnoses (Sansone et al., 2005). In addition, the variety of self-defeating and self-damaging behaviors exhibited by those with BPD and comorbid eating disorders, including impulsivity and engaging in self-harming behaviors, can reduce the likelihood of patients benefiting from most therapies (Palmer et al., 2003).

Etiology and Common Mechanisms – BPD and Eating Disorders

Although several studies have described eating disorders as being more prevalent among patients with personality disorders, this finding was contradicted in one fairly recent, large-scale trial. In this study, researchers examined the prevalence of eating disorders among 668 patients who were diagnosed with schizotypal, borderline, obsessive-compulsive, or avoidant personality disorder, or major depressive disorder (MDD). The results indicated that personality disordered patients were not significantly more likely to have an eating disorder than those patients with MDD (Grilo, Sanislow, Skodol, Gunderson, Stout, & Shea et al., 2003). It is unclear whether this is due to a common mechanism or mechanisms shared by patients with major depression, eating disorders, and personality disorders (Livesley et al., 2005). It is possible that factors common to BPD, eating disorders, and major depression may include genetic and environmental influences on the development of these disorders; however, the trial was not designed to explore this hypothesis.

In another trial, however, researchers sought to elucidate etiological factors that may be common to the development of PDs and eating disorders. In their recent study of 221 pairs of monozygotic (121 pairs) and dizygotic (100 pairs) twins, Livesley and colleagues (2005) explored the relationship between Axis II symptoms and a measure of eating disorder symptoms. They estimated the extent to which genetic and environmental influences on symptoms were shared with specific personality characteristics by exploring correlations between scales assessing personality disorder and eating disorder traits. Genetic correlations between variables were estimated using a method similar to estimating the heritability (proportion of the total variance) of a single variable. Heritability was estimated by comparing the similarity (in terms of endorsement of symptoms) of monozygotic and dizygotic twins. A higher within-pair correlation for monozygotic than dizygotic twins was indicative of genetic influence.

The team's findings suggested that, while there were genetic influences in the development of the disorders, the relationship between personality disorder traits and eating disorders was relatively modest, and there were small but significant phenotypic relationships. Specifically, the investigators found dimensions of "concern with overeating" to share a genetic etiology with the construct of "emotion dysregulation." Affective lability was phenotypically and etiologically related to purging, and the strongest association was between purging and the tendency to self-harm. These findings suggest that personality characteristics are related to eating disorders, but that the degree to which they are expressed may vary according to environmental experiences. The authors postulated that purging may be related to the spectrum of self-harming behaviors in BPD, and this may account, at least in part, for the relationship between bulimia and BPD. Though this study was comprised of individuals from a general population sample, rather than those with a diagnosable eating disorder, it suggests hypotheses linking BPD and eating disorders are worthy of further study.

Dialectical Behavior Therapy for BPD

There are few randomized controlled trials of specific treatments for personality disorders (see Bateman & Fonagy, 2000, for a review). However, psychotherapy is the most commonly applied treatment for personality disorders, and, despite Linehan's (2000) observation of poor outcomes associated with patients with a personality disorder, psychotherapy has been associated with an up to seven-fold faster rate of recovery as compared to no treatment at all (Clarkin et al., 2004).

Dialectical Behavior Therapy (DBT; Linehan, 1993a) is a treatment that blends cognitive-behavioral and Zen-inspired practices, and was specifically developed to address the problems of affect dysregulation that are at the core of BPD. DBT, which combines individual psychotherapy with group skills training, was the first psychotherapy intervention that was shown via controlled trials to be effective for the treatment of BPD (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991; Linehan, Heard, & Arm-

strong, 1993). Dialectical philosophy, which stresses the importance of understanding and incorporating the natural tensions between acceptance of one's emotions at the present moment and the simultaneous need for change, is at the heart of DBT. DBT is highly structured, particularly during the initial stage of treatment. Prior to the initial stage, the therapist must secure the client's agreement to the requirements of DBT. These include a year-long commitment to treatment and up to 4 hours per week for the individual, group, and consultation sessions.

During the first stage, the therapist facilitates decreasing both the patient's life-threatening and therapy-interfering behaviors (e.g., missing appointments without calling, hostility toward the therapist), and targets those behaviors that interfere with the patient's quality of life. At this stage, DBT focuses on four concurrent modes of treatment: weekly individual psychotherapy; group skills training sessions, which emphasize acquiring and strengthening interpersonal and coping skills; telephone consultation with the therapist (as needed); and weekly consultation team meetings for therapists. The manualized skills training sessions are structured and include the assignment of homework (Linehan, 1993a; Linehan, 1993b). The team meetings are aimed at helping therapists process and receive feedback regarding treatment concerns and enhance their capability for effectively working with patients (McMain, Korman, & Dimeff, 2001).

During stage two, the emphasis is on using a cognitive-behavioral therapy approach to reduce the symptoms of posttraumatic stress that are common to most patients with BPD (Smith & Peck, 2004). For example, key techniques include keeping a thought diary, behavioral analyses, exposure techniques, flooding, and contingency management (although these can be applied during any stage of treatment). During stage three, the client with BPD begins to apply the newly acquired skills to every area of life. This includes planning for the future, asking the therapist for help in an appropriate way, focusing on reducing shame and self-hate, accepting reality as it is, and integrating the self with the past, present, and future (Linehan, 1993a).

Studies of DBT for Patients with BPD

While an exhaustive review of the literature on DBT is not within the scope of this paper, a brief overview of the support for DBT for BPD is presented below. Several studies have examined the use of DBT compared to standard care, or Treatment as Usual (TAU), for patients with BPD, usually for those with a history of self-harm or parasuicidal behavior (Smith & Peck, 2004). In their 1991 study, Linehan and colleagues conducted a randomized clinical trial to evaluate the effectiveness of DBT for the treatment of chronically parasuicidal women who met criteria for BPD. The treatment lasted 1 year, with assessments every 4 months. The control condition was TAU. Prior to randomization, subjects were matched regarding the number of past parasuicidal events, psychiatric hospitalizations, age, and prognosis. However, almost one third of potential subjects across both groups either dropped out or were excluded from the sample because they did not meet inclusion criteria. Twenty-two subjects were left in the DBT group, 20 of whom remained in DBT for the required year. The control subjects (n = 20) received referrals for therapy in the community. TAU subjects reported significantly fewer hours of individual or group therapy, but reported more day treatment than the DBT group. At most assessment time points, subjects who received DBT had fewer incidences of parasuicide and less medically severe parasuicides, were more likely to stay in individual therapy, and had fewer inpatient psychiatric days. There were no between-group differences on measures of depression, hopelessness, suicidal ideation, or reasons for living, and scores on all four measures decreased throughout the year.

There were several limitations associated with this study. Among them were the high pretreatment attrition rate and the somewhat sparse information regarding the specifics of the treatment received by those in the TAU group. In addition, the DBT subjects received treatment for free, whereas the TAU subjects were charged for services obtained in the community, resulting in their seeking treatment in low-fee settings. This last limitation likely accounted to some extent for the fact that subjects in the DBT condition were significantly more likely to begin and remain in therapy than the TAU subjects (Scheel, 2000).

In another trial by Barley, Buie, Peterson, and Hollingsworth (1993), DBT was adapted for use with 130 BPD patients (almost 80% of whom were women) who were discharged from an inpatient psychiatric unit after an approximately 100-day length of stay. The patients received individual therapy, group skills training and other activities, including DBT homework. Average rates of parasuicidal behavior were compared for the 19 months prior to the introduction of DBT, the 10 months of the initial phase of the program, and the subsequent 14 months of DBT. This approach resulted in a significant reduction in parasuicide under the full DBT program as compared to the pre-DBT and phase I DBT periods. Rates were also significantly lower than the average rates of parasuicide within a general psychiatric unit offering treatment as usual (Scheel, 2000).

The primary strength of this study may be its reasonably large sample size (N = 130) as compared to other trials of DBT. However, without a true control group or random assignment to either DBT or another therapeutic intervention, definitive conclusions cannot be made attributing observed benefits to DBT alone. Yet, reduction of parasuicidal behaviors seems to be a consistent finding across DBT studies (see Scheel, 2000, for a review). In addition, Barley and colleagues (1993) reported that DBT was readily accepted and understood by both patients and hospital staff alike, presumably adding to the observed effectiveness of this approach.

DBT for Binge Eating Disorder

Although most studies of DBT have been with patients who have an Axis II diagnosis, a 2001 study by Telch, Argas, and Linehan evaluated DBT for patients with binge eating disorder (BED). The investigators adapted DBT for use with this population in a randomized, controlled trial. This study followed an uncontrolled pilot study during which 11 women with BED received the group skills training portion of DBT, which was adapted from Linehan's (1993b) treatment manual but was not accompanied by the other aspects of standard DBT. The original pilot skills training program took place over 20 sessions. In the RCT, however, the treatment was adapted from the DBT manual as follows: participants were taught mindfulness, distress tolerance, and the emotion regulation skills that are normally part of DBT, but the interpersonal effectiveness components of DBT were not included. Furthermore, standard DBT includes both weekly group therapy skills training and weekly individual therapy. The adaptation of DBT in this study combined skills training and skills-to-daily-life components in a weekly group therapy format. The intervention was structured in this way both to decrease the amount of time spent in therapy, and to allow for comparisons of this affect regulation treatment with other interpersonally focused therapies for eating dysfunction. There were no dropouts in the pilot, and 82% of women were abstinent from binge eating at the end of treatment as well as at 3 and 6 months post-treatment (Telch, Agras, & Linehan, 2000; Wise & Telch, 1999). Thus, despite the elimination of portions of the DBT protocol, these patients experienced reduction in a key symptom that was maintained after the cessation of the intervention.

DBT for BPD Patients with Comorbid Eating Disorders

A review of the literature revealed only one published study on the use of DBT for patients diagnosed with both BPD and a comorbid eating disorder (Palmer et al., 2003). The trial adapted a full program of DBT for use with patients in a specialized eating disorder service who met DSM-IV (American Psychiatric Association, 2000) criteria for both BPD and an eating disorder (binge eating disorder, *n* = 1; bulimia, *n* = 5; eating disorder NOS, *n* = 1; two of the subjects also met criteria for anorexia nervosa prior to, but not at the time of enrollment in the study). The team was comprised of experienced clinicians who had undergone intensive training in DBT prior to the study. Subjects received weekly individual therapy sessions, weekly skills training in a group format, and phone contact with therapists outside of the formal sessions. In addition, the therapeutic team met for a weekly consultation group as per standard DBT. The adaptation consisted of the addition of a skills training module that focused on problems of weight and eating.

The all-female study sample was small, however (*N* = 7), and began with three patients, with three more being enrolled at 6 months into the intervention, and a seventh being enrolled at 1 year. The length of time patients were enrolled in the program thus varied from a minimum of 6 months to 18 months, rather than adhering to the normal minimum requirement of remaining in DBT for 1 year. All of the women in the sample had engaged in prior acts of self-harm and most had been patients on the service for some time prior to the intervention, though this range was not specified in the article. Five of the patients had received inpatient treatment prior to the study.

As several of the patients were "uncooperative" (p. 283) with respect to filling out questionnaires during the study, data for pre-post comparisons were limited, leaving only two variables available for all patients. These were the total number of days spent in the hospital and the number of acts of self-harm that either did receive, or should have received medical attention. Acts such as self-cutting not requiring stitches were not counted. Self-harm episodes were obtained via documentation by the clinical staff and from diary cards patients filled out during the program. These endpoints were also available for the 18 months prior to and the 18 months after the completion of the program, as well as for the duration of the program.

Due to the small sample size and variability of the data available for each patient, the research team deemed it inappropriate to attempt to perform statistical analyses and instead provided results descriptively. All patients survived and remained in treatment throughout the duration of the program. There was a reduction in both inpatient days and self-harm requiring medical attention for the group as a whole. However, one patient was assaulted during the finalthird of her treatment, and this was followed by a major relapse necessitating prolonged hospital admission.

The investigators reported marked reduction in minor self-harm (that not requiring medical attention) in all patients, and eating disorder symptoms also decreased in the group such that by the end of follow-up, none of the patients still had a full syndrome eating disorder, although four had partial syndromes diagnosable as eating disorder NOS. All participants retained some concerns regarding weight and eating behaviors; however, in the post-treatment months all were described as making "significant progress in their lives" (p. 284), including marriages, having a baby, a graduation, and progress in employment (Palmer et al., 2003). Also, none continued to present the behavioral/interpersonal difficulties in therapy that had been characteristic prior to the DBT program.

The limitations to this study are many. First, the small sample size, lack of a control group or randomization, great variation in total time subjects spent in the study, and incomplete baseline and other data make it impossible to conclude that the DBT program was effective above and beyond the effects of internal validity confounds. However, the results of this program are promising and suggestive of significant benefits for patients who are at high-risk, tend to be difficult and demanding, and who remain treatment-resistant even after extensive therapy. Additional trials of

DBT for patients diagnosed with BPD and comorbid eating disorders are warranted to further explore the utility of this approach with this challenging population.

In a follow up to the aforementioned study of patients with BED by Telch and colleagues (2001), the team conducted a controlled trial of 44 women meeting diagnostic criteria for BED, (27% of whom had a current, but unspecified, personality disorder) that were randomized to either DBT skills training (*n* = 22) or a wait-list control condition (*n* = 22). Following randomization, 10 participants dropped out of the study (four in the treatment group and six in the waitlist control). Participants were assessed at baseline and after completing 20 weeks of treatment using the SCID I and II, the Binge Eating Scale, the Emotional Eating Scale (EES), the Beck Depression Inventory, the Positive and Negative Affect Schedule (PANAS), and the Negative Mood Regulation Scale. Those in the treatment group also completed abbreviated assessments of binge frequency and skills usage at 3 and 6 months post-intervention. Assessments were performed via structured clinical interview by trained interviewers. Though the original design specified having interviewers unaware of group assignment, the blind was often broken by the patient.

There was a great deal of psychiatric comorbidity in the sample, and over 75% of participants had received psychiatric treatment in the past, though they did not receive other types of psychotherapy during the trial. Analyses were limited to those who completed treatment (*n* = 34). There were no significant differences between groups on any of the baseline measures, but significant effects were found at the end of the treatment for binge days and episodes. Eighty-nine percent of the treatment group were considered abstinent (no binges in the previous 4 weeks) compared with 12.5% of the control group. Those in the treatment group also had significantly lower scores on measures of weight concerns, shape concerns, and eating concerns, though there were no significant differences in dietary restraint. Patients in the treatment group reported significantly lower scores on a scale measuring the urge to eat when experiencing anger. Changes were maintained among many of the women in the post-treatment months, with 67% and 56% being abstinent at 3 and 6 months, respectively. The majority of participants (89%) continued to practice skills taught during treatment.

Of those in the waitlist control group, 14 women accepted the invitation to participate in treatment. For those who completed the intervention, 90% were abstinent at the end of treatment and 80% and 67% were abstinent at the 3- and 6-month follow ups, respectively.

The study was limited by its small sample size and relatively high dropout rate. The authors were also unable to conclude how DBT worked to reduce binge eating, and the results of the study offered no support for the hypothesis that the treatment worked by reducing negative affect or by improving expectancies for mood regulation (Telch et al., 2001). However, treated women reported significantly lower scores on the anger subscale, but not the anxiety and depression subscales, of the EES at posttest. These findings suggest, but do not conclusively demonstrate, that the modified DBT program used in this study may work by reducing the urge to eat when experiencing negative emotions rather than by changing affect directly.

Summary and Future Directions

Personality disorders and eating disorders appear to be frequently comorbid, and patients with either or both Borderline Personality Disorder and an eating disorder face a number of difficulties that have been historically treatment resistant. Dialectical Behavior Therapy, which combines elements of cognitive behavioral therapy and Zen practices, addresses many of the specific challenges of BPD via individual psychotherapy and group skills training, as well as a focus on self-acceptance. At present, DBT is the only treatment that is considered empirically supported for patients with BPD, and has been shown to reduce self-harming behaviors and improve interpersonal functioning in this population. As BPD and eating disorders appear to share some common features, including the tendency to engage in self-harming behaviors, it has been hypothesized that DBT may be a useful treatment option for those with this type of comorbidity. DBT has shown some initial promise as a potential treatment for patients with binge eating disorder, and preliminary research suggests it may be of benefit to those with BPD and comorbid eating disorders. Criticisms of DBT include the limited number of randomized, controlled trials examining the efficacy of the treatment, small sample sizes, and as of yet no clear understanding of the specific mechanisms of action. Also, attrition rates are high in many studies of BPD due to the impulsivity and instability of patients with this disorder. Furthermore, DBT frequently does not result in significant reductions in the depression or hopelessness characteristic of BPD. Outcomes of interest vary from study to study, as do the measures used to assess them. Both of these issues make it difficult to compare the results of trials even when conducted with comparable patient populations. In a related vein, DBT is often adapted for use in different settings and for patients who meet different diagnostic criteria, resulting in treatments that are similar but not quite the same. This too makes comparison across trials difficult.

Comorbidity presents additional and significant challenges to treating and conducting rigorous research with those who have personality disorders. Many individuals are diagnosed with more than one Axis II disorder, and the interaction between Axis II and Axis I disorders may obscure treatment effects. Studies may also confound personality change with improvement in symptoms. Additionally, since most patients with either BPD or an eating disorder are women, it is unclear whether and to what extent DBT would have similar effects for men with either or both disorders. Last, DBT is a time-intensive and thus, potentially costly treatment. This presents probable barriers to those with limited incomes or whose work schedules would not

allow for the up to 4 hours per week required for standard DBT.

Nevertheless, these limitations aside, DBT is the only treatment considered empirically supported for use with patients who have BPD. The focus on acceptance in the present moment may be particularly beneficial for patients with eating disorders, especially in light of their characteristic lack of acceptance of their bodies. Given the promising results in reducing self-harming behaviors among patients with BPD, the preliminary results showing similar benefits for those with both BPD and a comorbid eating disorder, and benefits, including decreased weight and eating concerns for those with binge eating disorder, further study of this therapy for those with both disorders is warranted.

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