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Treatment Differences in the Therapeutic Relationship and Introject During a 2-Year Randomized Controlled Trial of Dialectical Behavior Therapy Versus Nonbehavioral Psychotherapy Experts for Borderline Personality Disorder

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Objective: The present study explored the role of the therapeutic relationship and introject during the course of dialectical behavior therapy (DBT; Linehan, 1993) for the treatment of borderline personality disorder. ***Method:*** Women meeting *DSM–IV* criteria for borderline personality disorder ($N = 101$) were randomized to receive DBT or community treatment by experts. The Structural Analysis of Social Behavior (Benjamin, 1974) was used to measure both the therapeutic relationship and introject. ***Results:*** Relative to community treatment by experts, DBT participants reported the development of a more positive introject, including significantly greater self-affirmation, self-love, self-protection, and less self-attack, during the course of treatment and 1-year follow-up. The therapeutic relationship did not have an independent effect on intrapsychic or symptomatic outcome but did interact with treatment. DBT participants who perceived their therapist as affirming and protecting reported less frequent occurrences of nonsuicidal self-injury. ***Conclusions:*** The study showed positive intrapsychic change during DBT and emphasized the importance of affirmation and control in the therapeutic relationship. Results are discussed in the context of understanding the mechanisms of change in DBT.

Keywords: dialectical behavior therapy, borderline personality disorder, therapeutic relationship, introject

Evidence has continued to accumulate supporting the efficacy of dialectical behavior therapy (DBT; Linehan, 1993) for the treatment of borderline personality disorder (BPD; American Psychiatric Association, 1994; Morey & Zanarini, 2000). DBT has been shown to be superior to treatment as usual and treatment by expert clinicians across a variety of domains of functioning including suicide attempts, emergency/inpatient treatment, intentional self-injury, anger, depression, and social and global adjustment (Kliem, Kröger, & Kosfelder, 2010; Lynch, Trost, Salsman, & Linehan, 2007). A critique of DBT, and these associated findings, has been DBT's perceived emphasis on symptomatic change as opposed to elements of patients' experience that represent internal or intrapsychic change (e.g., Scheel, 2000). Similarly, behavioral approaches have historically been perceived as underemphasizing the use of the therapeutic relationship for the sake of technique (Lejuez, Hopko, Levine, Gholkar, & Collins, 2005). Broadly speaking, these critiques speak to issues of the underlying mechanisms of change in DBT (e.g., Neacsiu, Rizvi, & Linehan, 2010). The current study sought to test these critiques by examining intrapsychic change and the role of the therapeutic relationship in DBT compared to a community treatment by experts (CTBE) control condition.

According to interpersonal theory (Sullivan, 1953), the concept of the introject can be defined as an aspect of an individual's personality that consists of self-directed actions including cognitive self-appraisals, and verbal and physical actions directed toward the self (Henry, 1996; Henry, Schacht, & Strupp, 1990). These internal, self-directed actions are thought to be fairly stable across the life span, reflective of the actions of early caregivers, and conceptually related to one's self-concept (Pincus, Gurtman, & Ruiz, 1998). The concept of the introject has been particularly useful in furthering our understanding of BPD. Benjamin and Wonderlich (1994) found patients with BPD to have an overall attacking and abandoning introject when compared to patients diagnosed with major depressive disorder and bipolar disorder. Additional studies have suggested that a hostile internal relationship with the self may act as a regulatory strategy for managing aversive experiences related to overall BPD symptom severity (Rosenthal, Cukrowicz, Cheavens, & Lynch, 2006) and that BPD patients value their negative self-concept as a desired part of their identity (Janis, Veague, & Driver-Linn, 2006).

Based on a biosocial model of BPD (Linehan, 1993), DBT treats the development of a positive self-concept as a primary target of therapy. Although not introduced to the term *introject* per se,

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patients are taught methods of appropriate self-evaluation, methods of tolerating disapproval, and ways of decreasing self-invalidating behaviors that are antithetical to patient goals. In an exploratory test of introject change during DBT, Shearin and Linehan (1992) showed that patients who perceived their therapist as providing more control and instruction were in turn perceived by their therapist as having an introject that was more self-caring. Despite DBT's theoretical emphasis on patient self-concept, critics have suggested that behavioral treatments, such as DBT, fail to incorporate important personality factors, such as the introject (Benjamin, 1997; Scheel, 2000; Shedler, 2010). These critiques suggest that the effectiveness of DBT in the treatment of BPD can be accounted for by symptom reduction rather than intrapsychic changes in patient factors considered more relevant to improvement when treating personality disorders. In light of the theoretical importance of the self-concept in DBT, and as a response to critiques, a goal in the present study was to examine the nature of introject change in DBT during the course of a randomized controlled trial of DBT.

One mechanism hypothesized to result in intrapsychic change during DBT is the therapeutic relationship (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). The therapeutic relationship is a common treatment factor that has been shown to have a consistent effect on outcome across a variety of therapeutic modalities (Castonguay, Constantino, & Grosse Holtforth, 2006). Although historically perceived as underemphasized in behavior therapy, the role of the therapeutic relationship in cognitive and behavioral interventions has been more fully explicated in recent work (Gilbert & Leahy, 2007; Grosse Holtforth & Castonguay, 2005; Lejuez et al., 2005). In DBT, a positive therapeutic relationship is considered essential to treatment and serves two functions (Linehan, 1993; Robins & Koons, 2000). First, the relationship between the therapist and patient is considered therapeutic, as the therapist provides an accepting, nonjudgmental, and compassionate stance toward the patient. Second, the therapeutic relationship also provides an avenue for the therapist to help the patient regulate his (or her) affect and behavior. Thus, the relationship also allows the therapist to exert control and influence where the patient might be initially lacking the skills to do so him or herself. During the course of treatment the therapist attempts to balance the two poles of acceptance and change as a method of simultaneously validating the patient's experience and also correcting dysfunctional behaviors—a dialectic of DBT.

In a preliminary analysis of this dialectical style, Shearin and Linehan (1992) examined the therapeutic relationship in four therapist–patient dyads during DBT. Results showed patients' perceptions of simultaneous control, autonomy, and warmth to be predictive of an overall decrease in suicidal behavior (i.e., nonsuicidal self-injury, urges to self-harm, and suicide ideation) in two of the four cases. An overall significance test supported the dialectical hypothesis, and results were maintained while controlling for nondialectical hypotheses including therapists' behavior that was purely autonomous or purely controlling. Although based on a few cases, these results provided preliminary data supporting the importance of acceptance and control in the interpersonal stance of the DBT therapist. Based on these initial impressions, the current study attempted to examine the therapeutic relationship in DBT using a much larger treatment sample in the context of a randomized controlled trial of DBT.

The present study had the following five hypotheses. First, we explored introject change during the course of DBT. Given DBT's emphasis on self-concept change, our first hypothesis predicted DBT participants would show a more affiliative introject during the course of treatment. In light of DBT's emphasis on therapists' warmth and control, our second hypothesis predicted DBT therapists to be perceived by patients as emphasizing greater levels of affirmation, protection, and control during treatment. Our third and fourth hypotheses explored the association between therapist affiliation with introject and nonsuicidal self-injury (NSSI) in DBT. We expected higher ratings of overall therapist affiliation would be related to increased introject affiliation (Hypothesis 3) and less frequent NSSI (Hypothesis 4) for DBT participants. Our fifth hypothesis predicted that the simultaneous use of emancipating, affirming, protecting, and controlling behavior, the DBT dialectic, would predict improved outcome. With each hypothesis, DBT was compared to CTBE. Although there were not specific hypotheses about how these two treatments would differ, CTBE practitioners were notably psychodynamic and eclectic in orientation and hence provided a meaningful comparator relative to our hypotheses about DBT.

Method

Participants

Participants ($N = 101$) were female and ranged in age from 18 to 45 years old. All participants were diagnosed using structured clinical interviews for Axis I and Axis II of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychological Association, 1994), and all received the diagnosis of borderline personality disorder. Average age for the entire sample was 29.3 years ($SD = 7.5$). The majority of participants reported their race as Caucasian (87%); their marital status as single, divorced, or separated (87%); and their annual income as less than $15,000 (75%). No significant differences in demographics were found between treatment conditions. All participants in the study were required to endorse a history of self-inflicted injury, defined by at least two suicide attempts or NSSI in the past 5 years and a minimum of one incident in the past 8 weeks. Exclusionary criteria included a lifetime history of schizophrenia, schizoaffective disorder, bipolar disorder, psychotic disorder not otherwise specified, or mental retardation. Individuals were also excluded under circumstances when treatment was mandated, a seizure disorder requiring medication was present, there was a primary need to treat another condition, or the patient was street homeless and participation interfered with access to housing services.

The participant coordinator randomly assigned participants to treatment conditions, either DBT ($n = 51$) or CTBE ($n = 49$; see Figure 1). This was done using a computerized adaptive minimization randomization procedure based on five prognostic variables: (a) number of psychiatric hospitalizations; (b) number of lifetime suicide attempts and NSSI; (c) a history of only suicide attempts, NSSI, or both; (d) age; and (e) scores on the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) or Global Assessment of Functioning (First, Spitzer, Gibbon, Williams, & Benjamin, 1995). Participants were enrolled from October 1994 through August 2003. Outcome measures were self-report and were administered by blinded, independent clinical assessors. The protocol was approved by the University of Washington Institutional Review Board. Additional

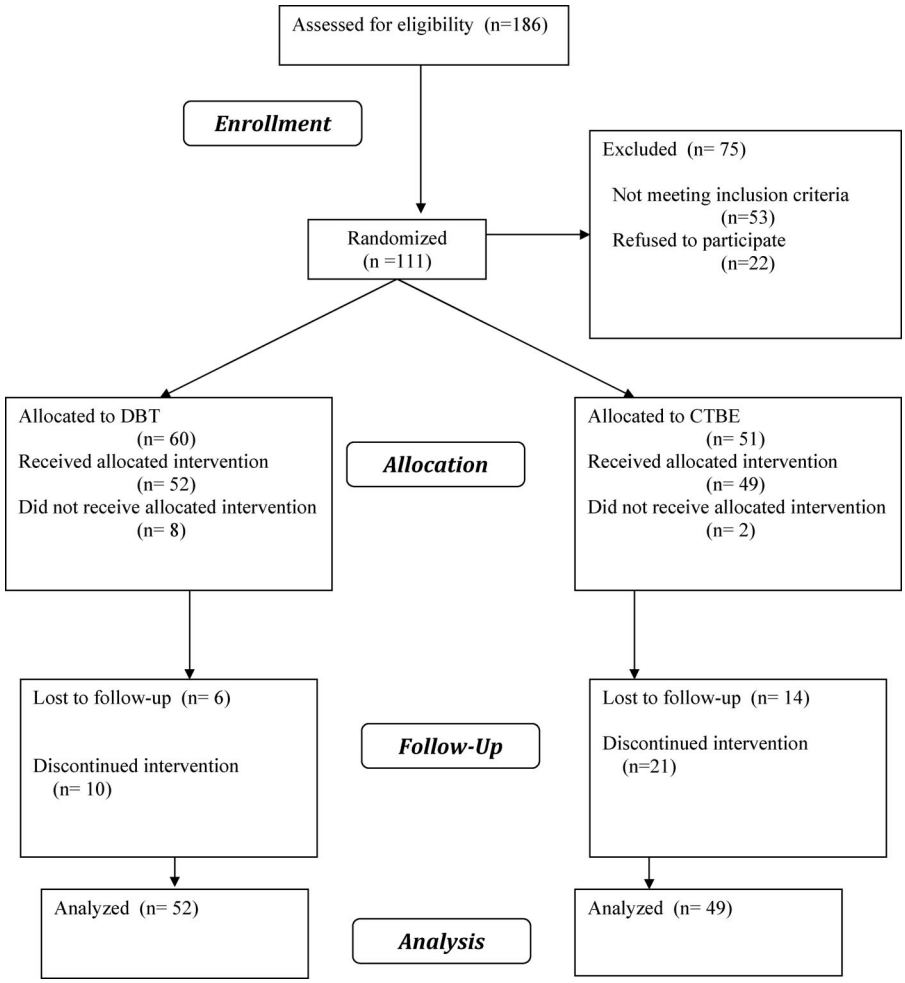

Figure 1. Participant flowchart. DBT = dialectical behavior therapy; CTBE = community treatment by experts.

details about procedures as well as treatments can be found in Linehan, Comtois, Murray, et al. (2006).

Treatments

Dialectical behavior therapy (DBT; Linehan, 1993). DBT is a cognitive behavioral therapy originally developed for the treatment of individuals exhibiting suicidal behavior and later expanded to those meeting criteria for borderline personality disorder. DBT consists of a blend of behavioral problem-solving techniques (e.g., functional analyses, behavioral skills training, exposure/response prevention, contingency management, cognitive restructuring) and acceptance strategies (e.g., validation, interpersonal reciprocity). Treatment interventions are organized based on dialectical processes, where the primary dialectic is acceptance and change. Sixteen therapists were recruited for the DBT treatment condition based on recommendations by colleagues. Of these therapists, eight had no previous DBT experience and eight had a range of exposure to DBT. Study therapists received 45 hr of DBT training including supervised practice. DBT therapists were assigned patients after being successfully rated as adherent to DBT practice in six of eight consecutive therapy sessions.

Community treatment by experts (CTBE). The CTBE condition consisted of therapists nominated by leaders in the mental health community as experts in the treatment of difficult patients. Thirty-eight therapists were selected from a larger pool of 94 therapists. Of the 38 therapists, 25 were assigned patients. Treatment provided by CTBE therapists was uncontrolled by the research team. Selected therapists described their theoretical orientation as "eclectic" or "mostly psychodynamic" (i.e., there were no cognitive behavioral therapists in the CTBE condition). Therapists were encouraged to provide the type of therapy and dosage they would normally prescribe with a minimum of one individual session scheduled per week and additional treatment prescribed as needed.

Measures

Therapeutic relationship and patient introject. The current study used Benjamin's Structural Analysis of Social Behavior (SASB) Intrex short form (Benjamin, 1983) to measure the ther-

apeutic relationship and patient introject. The SASB (Benjamin, 1974) is a three-surface circumplex model of interpersonal and intrapsychic behavior rooted in the theoretical traditions of Sullivan (1953) and Leary (1957). The adapted SASB model in Figure 2 differentiates two of the three surfaces using bold and italicized behavioral descriptors referred to as clusters. The emboldened descriptors represent actions that are transitive in nature where the focus of behavior is directed toward another person. The italicized descriptors represent transitive actions directed toward the self (i.e., the introject). A third category of behavior representing intransitive behavior was not included in this study. Each surface is a two-dimensional model based on the dimensions of affiliation and interdependence. The horizontal axis for each surface reflects the affiliation dimension and ranges from hate (left) to love (right). The vertical axis for the transitive surface reflects the interdependence dimension and captures the degree of emancipation versus control in the relationship. The vertical axis for the introject surface captures the degree of self-emancipating versus self-controlling behavior. Each cluster is a blend of the affiliation and interdependence dimensions. The adapted simplified model presented in Figure 2 defines each cluster by a single word for each of the aforementioned surfaces.

The SASB was rated by participants using the Intrex Short Form (Benjamin, 1983). Each item on the Intrex short form measures one SASB cluster score for each of the SASB surfaces. Patients participating in the present study rated eight items from the transitive surface to measure their therapists' actions directed toward them and eight items from the intrapsychic surface to rate their introject. Each of the 16 items was rated on a scale from 0 (*never, not at all*) to 100 (*always, perfectly*) in 10-point increments. SASB ratings of the therapists' behavior were assessed during the active phase of both treatments at 4 months, 8 months, and 12 months. Introject ratings were made at 2 weeks into treatment and then again during treatment at 4 months, 8 months, and 12 months and also during post-therapy follow-up at 16 months, 20 months, and 24 months. At the 2-week assessment for the introject, participants were asked to "indicate how well each question describes yourself in the past four months." Follow-up instructions for both therapist and introject ratings asked participants to indicate how well each question described their therapist and themselves "since your last assessment."

There are several available methods for summarizing SASB Intrex data (Benjamin, 2000; Pincus, Newes, Dickinson, & Ruiz, 1998). Of these methods, the most general summary indices are affiliation and interdependence dimension ratings. Both of these indices are weighted transformations of SASB cluster scores, where clusters on the horizontal axis are weighted positively for affiliative behavior and weighted negatively for disaffiliative behavior. SASB clusters on the vertical axis of the transitive and introject surface are weighted positively for autonomy (i.e., **emancipate** or *self-emancipate*) and negatively for control (i.e., **control** or *self-control*). These summary scores can be used to capture overall levels of affiliation and interdependence for each of the SASB surfaces and are recommended for large, nomothetic databases as they typically assume a normal distribution (Pincus, Newes, et al., 1998). In the present study, affiliation and interdependence dimension ratings were used to provide a general summary of the degree of affiliation and autonomy–control in the transitive actions of the therapist toward the patient as rated by patients. In order to test hypotheses related to the introject, we calculated an affiliation dimension rating for patients' self-reported introject. In a validation study of the SASB, Pincus, Gurtman, and Ruiz (1998) found introject affiliation to be reflective an individual's self-esteem, sense of agency, self-acceptance and the ability to "more confidently engage and adapt in the social world and take charge of things when it is required" (p. 1642).

Pattern coefficients are a second method of summarizing Intrex data and are the product–moment correlations between participant's eight SASB cluster scores with 21 theoretical patterns centered on various clusters of the circumplex model

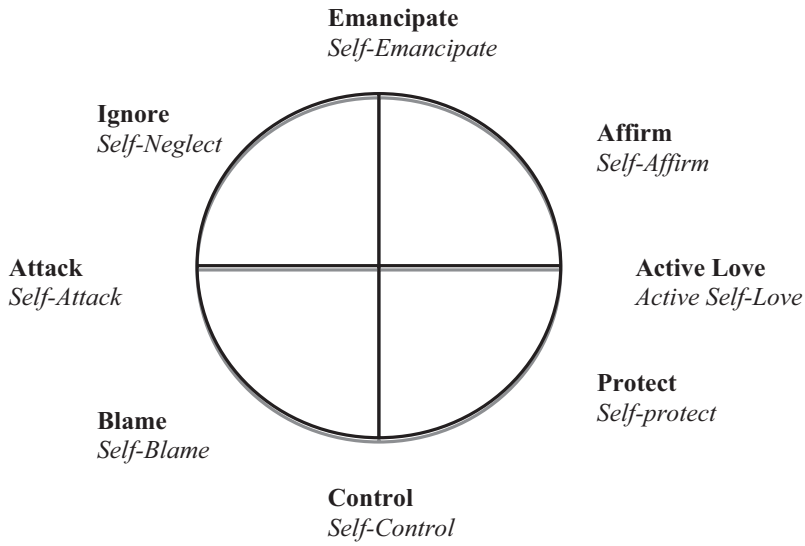

Figure 2. The simplified one-word cluster model. Adapted from *Interpersonal Diagnosis and Treatment of Personality Disorders* (2nd ed., p. 55), by L. S. Benjamin, 1996, New York, NY: Guilford Press. Copyright 1996 by the Guilford Press.

(Benjamin & Wonderlich, 1994). These theoretical curves define a specific interpersonal pattern taking the form of a single cosine curve, linear polynomial curve, or nonlinear polynomial curve. In the present study, we were interested in a theoretical pattern of therapist behavior consistent with the dialectic of DBT, where therapists are perceived as simultaneously emancipating, affirming, protecting, and controlling defined as the DBT pattern coefficient (Schmidt, 2001; Shearin & Linehan, 1992).

The final and most specific index of SASB Intrex ratings are the individual raw cluster scores. Based on our hypothesis we examined four SASB cluster scores for patients' ratings of therapists' actions on surface one including *affirm, active love, protect,* and *control.* Based on hypotheses, we also examined four SASB cluster scores for introject including *self-affirm*, *active self-love*, *self-protect*, and *self-attack*. In summary, we used SASB dimension ratings of therapist affiliation, therapist autonomy–control, introject affiliation, the DBT pattern coefficient, and cluster scores of therapist behavior and introject in our analyses.

Nonsuicidal self-injury. The Suicide Attempt Self-Injury Interview (Linehan, Comtois, Brown, Heard, & Wagner, 2006) was used to measure suicide intent, nonsuicidal self-injury, and medical severity of each suicide attempt. Interrater reliabilities ranged from 0.88 to 0.94. In the current study we used nonsuicidal self-injury as our measure of self-harm, as opposed to suicide attempts, due to its greater frequency throughout treatment. This allowed for more accurate estimates for statistical modeling across time. The use of nonsuicidal self-injury is also consistent with prior studies examining the association between the therapeutic relationship and suicidal behavior in DBT (Shearin & Linehan, 1992).

Data Analysis

Hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002), also known as mixed effects or multilevel modeling (Pinheiro & Bates, 2000), was the primary data analytic tool on the intent-to-treat sample. Compared to traditional methods, HLM is more flexible in its treatment of time as a continuous factor, allowing for variability in the actual time of assessment for each participant. In addition, HLM can model incomplete data across time, which makes analyses more powerful due to the inclusion of more data points. Last, HLM allows for time-varying and time-invariant covariates as a method of exploring the cross-time association and change between two factors. HLM assumes normality, homoscedasticity, and independence of the error terms. All assumptions were met unless otherwise noted.

In order to test the first two hypotheses, our basic model for treatment differences for introject and therapist behavior across time, is shown in Equation 1:

$$Level\ 1\text{: } SASB_{ti} = \pi_{0i} + \pi_1(Time)_{ti} + \pi_2(Time^2)_{ti} + e_{ti} \quad (1)$$

$$Level\ 2\text{: } \pi_{0i} = \beta_{00} + \beta_{01}Tx + r_{0i}$$

$$\pi_1 = \beta_{10} + \beta_{11}Tx$$

$$\pi_2 = \beta_{20} + \beta_{21}Tx$$

where *t* indexes time and *I* indexes individuals. *Time* measured in weeks from the start of treatment was modeled using linear and quadratic terms, allowing for nonlinear change. *Tx* is a treatment dummy-variable, coded 0 for DBT and 1 for CTBE. The cross-level interactions between *Tx* and *Time* (i.e., $\beta_{11}$and β_{21}) model treatment differences in the trajectories across time. The Level 2 variance term (i.e., r_{0i}) models heterogeneity in individual participant trajectories. Additional random effects were also examined (e.g., slope, quadratic effect), but deviance tests revealed they did not improve the fit of the model.

Hypotheses 3, 4, and 5 examined the association between (a) therapist behavior and introject and (b) therapist behavior and NSSI across both treatments. In order to test these hypotheses we followed the recommendations of Singer and Willett (2003) in using time-varying covariates (TVCs) in which the TVCs were added as an additional fixed effect at Level 1 of the model, as shown in Equation 2:

$$Level\ 1\text{: } DV_{ti} = \pi_{0i} + \pi_1(Time)_{ti} + \pi_2(Time^2)_{ti} + \pi_3(TVC)_{ti} + e_{ti}$$

$$Level\ 2\text{: } \pi_{0i} = \beta_{00} + \beta_{01}Tx + r_{0i}$$

$$\pi_1 = \beta_{10} + \beta_{11}Tx$$

$$\pi_2 = \beta_{20} + \beta_{21}Tx$$

$$\pi_3 = \beta_{30} + \beta_{31}Tx$$

where *DV* indicates either NSSI or SASB introject; *t* indexes time and *I* indexes individuals. *Time* measures the assessment period in weeks. Equation 2 captures the initial *DV* score for DBT (β_{00} due to the coding of *Tx*), change in the *DV* over time for DBT (β_{10}, β_{20}), and the cross-time association between *DV* and SASB rated therapist behavior. The *Tx* terms describe the difference between DBT and CTBE for each parameter. In addition we conducted a series of lagged analyses to further examine the cross-time association between perceived therapist behavior with introject and NSSI. Using the model in Equation 2, these analyses provided us with a general sense of order of change across these variables (e.g., Are prior assessment period ratings of therapist behavior associated with patients' self-reported introject in the next assessment period?).

Given that NSSI is a count variable and is positively skewed, a Poisson mixed-effects regression was used for all analyses involving NSSI as the outcome (Raudenbush & Bryk, 2002). Poisson mixed-effects models for HLM assume that Level 1 data follow a Poisson distribution, which is often appropriate for count data such as number of NSSI instances (Atkins & Gallop, 2007). There is one additional, critical aspect of the Poisson mixed-effects model for interpretation. The Poisson model uses a natural logarithm link function, and the coefficients are typically exponentiated (i.e., e^B) to be interpreted. Sometimes called the rate-ratio, this approach is somewhat similar to interpreting odds ratios for logistic regression.

Plots of predicted regressions were used to facilitate interpretation of all models. Sensitivity analyses to examine the effect of differential rates of dropout on hypotheses were conducted and did not alter results. All data analyses were conducted in R-2.6.1 (R Development Core Team, 2007).

Results

Hypothesis 1: DBT participants will show a more affiliative introject during the course of treatment.

Our initial step in examining the SASB introject was to explore changes in the overall dimension rating for introject affiliation across treatment and time, where time was assessed as number of weeks in treatment through 1-year follow-up. The model in Equation 1 was fit for introject affiliation as the outcome. Treatment (DBT = 0 and CTBE = 1) differences at the initial assessment point were not significant. The effect for change in DBT across treatment was significant, $B = 1.06$, $SE = 0.09$, $t(366) = 11.60$, $p < .00$, CI [0.88, 1.24] (all CIs are 95% CI), where DBT participants reported an increase in introject affiliation through treatment and follow-up. A treatment by weeks in treatment interaction was found for introject affiliation, $B = -0.44$, $SE = 0.14$, $t(366) = -3.23$, $p < .01$, CI [−0.72, −0.17], where participants in DBT reported a significantly greater increase in introject affiliation during treatment and follow-up compared to CTBE (see Figure 3). In Figure 3 it is important to note that the zero point on the vertical axis is meaningful in that it indicates a change in overall introject from hostile to affiliative. As can be seen in Figure 3, the DBT group reaches this zero point prior to the end of treatment and the CTBE group begins to approach this value toward the end of 1-year follow-up.

SASB introject clusters scores provided a more detailed, exploratory, analysis of change in introject affiliation during the course of treatment. Results showed a significant effect of change in DBT for SASB introject clusters including self-affirm, $B = 0.22$, $SE = 0.03$, $t(370) = 7.28$, $p < .00$, CI [0.17, 0.29]; active self-love, $B = 0.26$, $SE = 0.03$, $t(371) = 9.10$, $p < .00$, CI [0.21, 0.32]; self-protect, $B = 0.25$, $SE = 0.03$, $t(370) = 8.73$, $p < .00$, CI [0.19, 0.31]; and self-attack, $B = -0.31$, $SE = 0.03$, $t(370) = -8.92$, $p < .00$, CI [−0.38, −0.24], where DBT participants reported perceiving themselves as significantly more self-affirming, self-loving, self-protecting, and less self-attacking across treatment and through follow-up. In comparison to those for CTBE, results showed a significant interaction where DBT participants reported more self-affirm, active self-love, self-protect, and less self-attack across treatment and through follow-up.[1]

Hypothesis 2: DBT therapists will be perceived by patients as emphasizing greater levels of affirmation, protection, and control during treatment.

A total of 76 (43 = DBT; 33 = CTBE) participants in our sample completed ratings of the therapeutic relationship. Results did not reveal significant differences in outcome measures for participants completing versus not completing ratings of the therapeutic relationship. Of the participants completing ratings of therapeutic relationship, three in the DBT condition and four in the CTBE condition reported rating a different therapist during the course of treatment with all of the transitions occurring prior to the second assessment of the therapeutic relationship. Sensitivity analyses were conducted to examine the effect of therapist switching on the study hypotheses and found no effect of therapist switching on the results presented below. We fitted the model in Equation 1 for each of the SASB clusters across treatment and time, where time was assessed as number of weeks in treatment starting at approximately four months into treatment through termination. Results supported a significant quadratic effect for therapist affirm during DBT, $B = -.02$, $SE = 0.01$, $t(102) = -3.13$, $p < .00$, CI [−.04, −.01], where DBT therapists were perceived as increasingly more affirming early in treatment with a plateau and deceleration toward the end of treatment. Results were not significant for change in therapist protect during treatment. Ratings of perceived therapist control showed strong positive skews with a high frequency of zero endorsement. Given the nature of the distribution, a Poisson distribution was selected as the most appropriate model for hypothesis testing. Results supported a quadratic effect for therapist control during DBT ($B = -0.00$, $SE = 0.00$, $z = -2.81$, $p < .00$), where DBT therapists were perceived as increasingly controlling early in treatment and less controlling as treatment approached termination. In comparison to CTBE, results supported a significant interaction between treatment condition and the quadratic effect of weeks in treatment for therapist affirm, therapist protect, and therapist control where DBT participants reported their therapists as increasingly more affirming, protecting, and controlling during treatment compared to CTBE therapists.

We conducted two exploratory analyses to examine change in the dimensional ratings for therapist affiliation and therapist autonomy–control. Dimensional ratings are composite indices of all SASB clusters and provide an overall sense of therapist behavior. The HLM models showed a significant linear increase for therapist affiliation, $B = 0.60$, $SE = 0.27$, $t(102) = 2.22$, $p < .05$, CI [0.07, 1.13], and significant quadratic effect for therapist autonomy–control, $B = 0.04$, $SE = 0.02$, $t(100) = 2.41$, $p < .05$, CI [0.01, 0.08], for DBT participants where patients perceived their therapist as increasingly affiliative and less autonomy granting during the course of treatment. The quadratic effect for autonomy–control suggested that the tendency for DBT therapists to be perceived as less autonomy granting showed a plateau toward the end of treatment. In comparison to results for CTBE, the interaction between treatment condition and the quadratic effect of weeks in treatment for therapist affiliation and therapist autonomy–control were both significant. In these models the DBT therapists were perceived as increasingly more affiliative and less autonomy granting compared to CTBE therapists (see Figure 4). In contrast, CTBE participants perceived their therapist as autonomy granting throughout treatment and perceived a deceleration of therapist affiliation in the middle phase of treatment and an increase toward the end of treatment, although never reaching levels comparable to DBT therapists.

Hypothesis 3: Increased therapist affiliation will be associated with increased introject affiliation in DBT.

In order to test the third hypothesis we applied Equation 2 to examine the association between perceived therapist affiliation and introject affiliation across weeks in treatment and treatment group. Our primary variables included (a) the dimensional ratings of therapist affiliation with introject affiliation and (b) the SASB

[1] Due to space limitations, results of treatment interactions are not presented. They are available from Jamie D. Bedics.

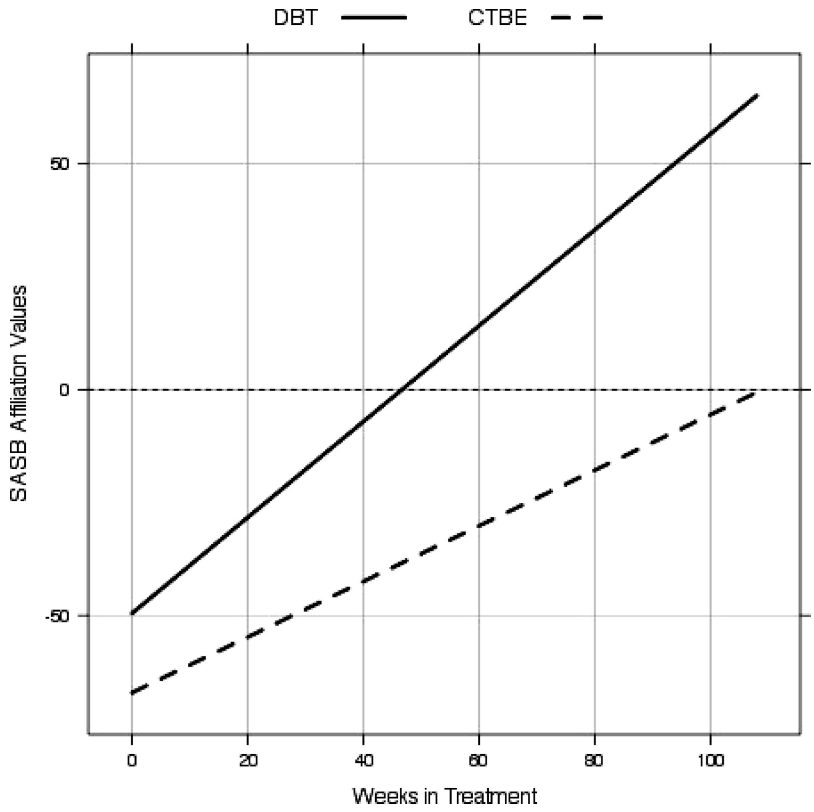

Figure 3. Patient ratings of introject affiliation across treatment and time. DBT = dialectical behavior therapy; CTBE = community treatment by experts; SASB = Structural Analysis of Social Behavior.

cluster ratings of affiliative behavior including therapist affirm with introject self-affirm, therapist active love with introject active self-love, and therapist protect with introject self-protect. The four HLM analyses examining the association between these variables in DBT, when rated at the same assessment period, were not significant. Nor were the independent effects of therapist affiliation on introject affiliation.

Using the same variables, we ran a series of four lagged HLM analyses examining the association between ratings of the therapist behavior and next-period ratings of introject. Dimensional ratings of therapist affiliation on next-period introject affiliation in DBT were not significant, nor were the independent effects of therapist affiliation on next-period introject affiliation. Analysis of the lagged association between the SASB clusters revealed two significant findings. DBT participants who reported greater ratings of therapist active love reported more introject self-love in the following assessment period, $B = 0.23$, $SE = 0.08$, $t(97) = 2.99$, $p < .00$, CI [0.08, 0.39]. Similarly DBT participants who reported greater ratings of therapist protect reported an increase in introject self-protect in the following assessment period, $B = 0.18$, $SE = 0.09$, $t(97) = 2.11$, $p < .04$, CI [0.01, 0.35]. Results were not significant for an increased association between therapist affirm and next-period ratings of introject self-affirm in DBT.

In comparison to results for CTBE, DBT participants reported a stronger, positive association between therapist affirm and next-period ratings of introject self-affirm, $B = -0.37$, $SE = 0.21$, $t(96) = -2.25$, $p < .03$, CI [−0.69, −0.04]. In contrast, CTBE participants reported a tendency for the opposite pattern where higher ratings of therapist affirm predicted less introject self-affirm in the following assessment period. DBT participants also reported a stronger, more positive association between therapist active love and next-period ratings of introject self-love compared to CTBE, $B = -0.26$, $SE = 0.11$, $t(97) = -2.32$, $p < .03$, CI [−0.47, −0.04] (see Figure 5). Results were not significant when comparing treatment differences in the lagged association between therapist protect and introject self-protect or dimensional ratings of therapist affiliation and introject affiliation.

Hypothesis 4: Increased therapist affiliation will be associated with less frequent NSSI in DBT.

The fourth hypothesis examined the association between SASB-rated therapist affiliation and NSSI during DBT. Poisson HLM models showed no significant effect for the dimensional rating of therapist affiliation on NSSI apart from treatment. In the DBT condition, patients who perceived their therapists as more affiliative also reported less NSSI, $B = -0.87$, $SE = 0.45$, $z = -1.94$, $p < .05$, regardless of time in treatment. In comparison to results for CTBE, DBT therapists reported a significantly greater association between increased therapist affiliation and less NSSI, $B = 0.01$, $SE = 0.00$, $z = 2.36$, $p < .02$.

Supplementary analyses examined the specific SASB therapist clusters contributing to this overall effect. Analyses resulted in three significant effects where higher levels of therapist affirm,

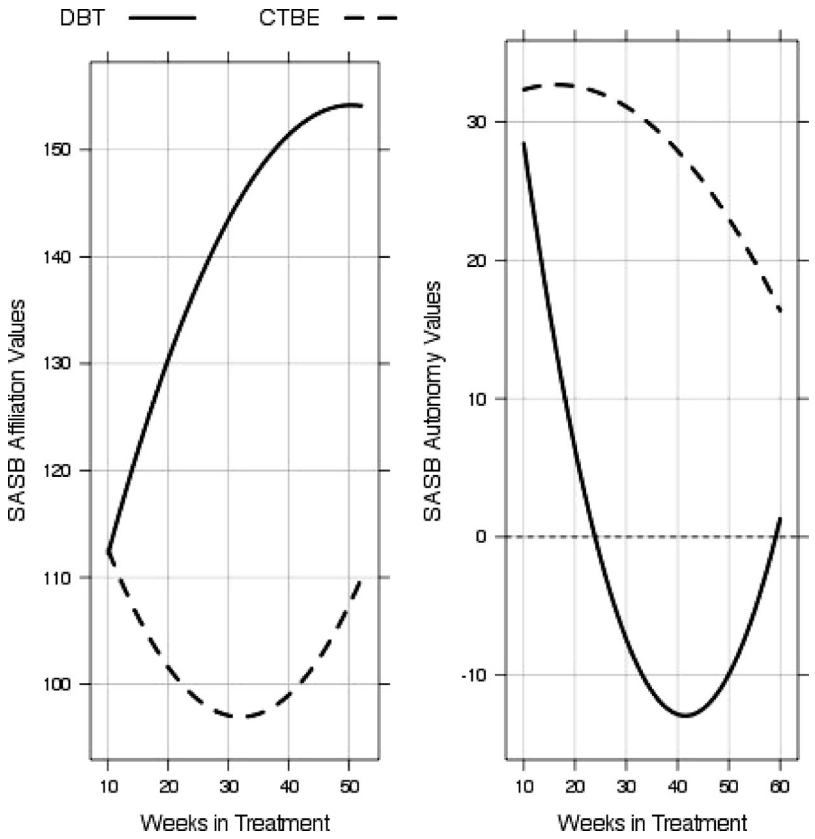

Figure 4. Patient affiliation and autonomy ratings of the therapeutic relationship across treatment and time. DBT = dialectical behavior therapy; CTBE = community treatment by experts; SASB = Structural Analysis of Social Behavior.

$B = -0.01$, $SE = 0.00$, $z = -2.37$, $p < .05$, higher levels of therapist active love, $B = -0.01$, $SE = 0.00$, $z = -2.56$, $p < .05$, and higher levels of therapist protect, $B = -0.01$, $SE = 0.00$, $z = -2.70$, $p < .05$, were associated with fewer occurrences of NSSI for DBT participants. In comparison to CTBE, results showed a significant treatment interaction for therapist affirm and therapist protect where DBT participants reported a stronger association between increased affirmation and protection with decreased NSSI. In contrast, CTBE showed the opposite pattern, with patients who reported higher levels of therapist affirm showing more frequent NSSI and therapist protect showing little association with NSSI. Lagged analyses examining the order of change between patient perception of therapist behavior and next-period ratings of NSSI were not significant.

Hypothesis 5: The simultaneous use of emancipating, affirming, protecting, and controlling behavior, the DBT dialectic, will predict improved outcome in DBT.

The DBT pattern coefficient for therapist behavior assessed the degree to which patients perceived their therapists as acting in a way consistent with a theoretically defined pattern of behavior where therapists were seen as simultaneously emancipating, affirming, protecting, and controlling. The average correlation between patient Intrex ratings of therapist behavior with the DBT dialectic pattern of behavior was 0.67, regardless of treatment and assessment period. The DBT dialectic pattern was not significantly different across treatment, regardless of time, $B = 0.00$, $SE = 0.01$, $z = 0.08$, $p = .94$. We found no significant independent main effects for patient ratings of the DBT pattern of therapist behavior on introject or NSSI. However, using the Poisson distribution in an HLM model, we found a significant effect for the DBT pattern of behavior on NSSI for DBT participants, $B = -0.01$, $SE = 0.00$, $z = -2.66$, $p < .05$, where higher patient ratings of the DBT pattern were associated with a decrease in NSSI. The results for the DBT condition remained significant regardless of levels of overall perceived therapist affiliation, $B = -0.01$, $SE = 0.00$, $z = -2.46$, $p < .05$, and perceived therapist autonomy, $B = -0.01$, $SE = 0.00$, $z = -2.44$, $p < .05$. In comparison to those for CTBE, results supported a significant interaction between treatment and time with DBT participants reporting a stronger association between an increase in the DBT pattern and a decrease in NSSI. Results showed the opposite pattern for CTBE participants, with higher patient ratings of the DBT pattern associated with an increase in NSSI.

Discussion

The current study provided us with the opportunity to respond to two criticisms of dialectical behavior therapy (DBT) stating that (a) DBT is symptom focused with little to no impact on intrapsychic or personality related factors and (b) behavioral therapies underemphasize the therapeutic relationship. The current findings also revealed potential mechanisms of change during the course of

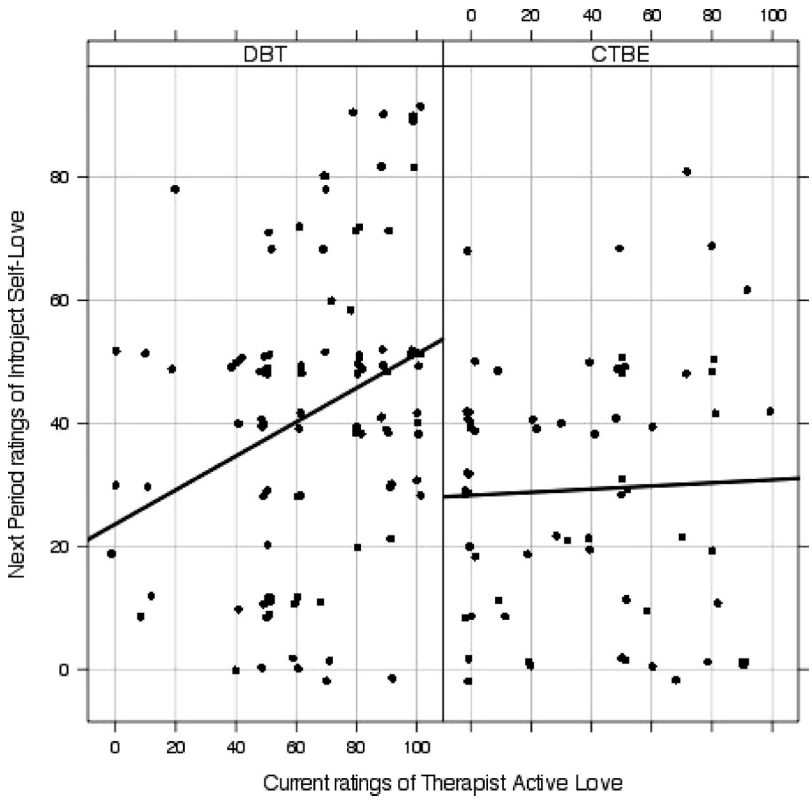

Figure 5. The association between patient ratings of therapist active love with next-period patient ratings of introject self-love across treatment and time. DBT = dialectical behavior therapy; CTBE = community treatment by experts.

DBT for the treatment of borderline personality disorder. Using Benjamin's Structural Analysis of Social Behavior (Benjamin, 1974) we explored the nature of change for both the introject and the therapeutic relationship in a randomized controlled trial of DBT versus CTBE for borderline personality disorder.

As predicted, individuals assigned to DBT reported significantly greater increases in introject affiliation including self-affirmation, self-love, self-protection and greater decreases in self-attack during the course of treatment and 1-year follow-up. These results also surpassed those for the CTBE condition. Participants in both conditions started therapy with an overall hostile, critical, and punishing introject, consistent with prior literature (Janis et al., 2006; Rosenthal et al., 2006). By the end of treatment and through 1-year follow-up, patients in DBT moved from an overall hostile and self-punishing introject to an overall affiliative and protective introject that could best be characterized as a tendency to work hard in order to take care of oneself. CTBE participants, although showing less self-directed hostility over time in treatment, showed significantly less improvement in their introject relative to the DBT group. These data suggest that the benefits of DBT go beyond symptom reduction and extend to elements of patients' personality that have been shown to be reflective of an individual's self-esteem and sense of social competence.

The therapeutic relationship in DBT, as perceived by the patient, appeared to involve complex elements of both affirmation and control that varied as a function of time in treatment. During the course of treatment, DBT therapists were perceived as increasingly more accepting and managing of the patient. Toward the end of the treatment the interpersonal stance of the DBT therapists appeared to shift, as they were perceived as somewhat less affiliative and less controlling, although scores suggested they maintained an overall affiliative and instructional stance. These results are consistent with a DBT model of the therapeutic relationship that combines warmth with management and structure (Linehan, 1993). In contrast to DBT therapists, CTBE therapists were perceived by their patients as affiliative and autonomy granting. As treatment approached termination, CTBE therapists appeared to exert less autonomy and more control. Overall, these results show two very different trajectories of the therapeutic relationship including (a) a DBT style that was initially very warm, accepting, and managing and became less controlling as treatment approached termination and (b) a CTBE control style that was generally warm and autonomous.

An additional objective of the study was to explore the association between the therapeutic relationship and outcome. By itself the therapeutic relationship did not predict introject or NSSI outcomes across treatments. Our results did, however, show a significant interaction between the therapeutic relationship and treatment condition for both introject and NSSI. In examining the effect of the therapeutic relationship on introject, our findings showed that DBT participants who reported their therapists as actively loving and protecting also reported greater self-love and self-care

in the following assessment period. In comparison to CTBE, DBT therapists showed a stronger, positive association between therapist affirmation and therapist active love with following period ratings of introject self-affirm and self-love, respectively. CTBE therapists showed a tendency for the reverse effect, with therapist affirmation related to less patient self-acceptance in the following assessment period. These results could be interpreted as further support for the complex role of validation and affirmation in psychotherapy in general (e.g., Karpiak & Benjamin, 2004; Linehan, 1997). The present findings lend support to the hypothesis that DBT therapists may utilize validation strategies as a method of confirming or modeling a positive self-view for their patients (Lynch et al., 2006). The opposite effect for CTBE therapists may be indicative of a less precise use of validation that may, unintentionally, reinforce a hostile view of self (e.g., Swann, 1997).

We found a similar interaction when testing the association between perceived therapist behavior and NSSI by treatment condition. During the same time period, DBT participants who perceived higher levels of therapist warmth, including affirmation, love, and protection, reported less NSSI. These results might reflect the tendency for DBT therapists to use the therapeutic relationship, including affirmation and guidance, as a method of reinforcing reductions in NSSI. Interestingly, our data showed an opposite pattern for CTBE participants. In CTBE, patients who perceived higher levels of therapist affirmation also reported increased NSSI. These results may be indicative of a tendency for CTBE therapists to respond to high levels of NSSI with affirmation that, from a behavioral standpoint, would be reinforcing of dysfunctional behavior as therapists attempt to manage a difficult situation.

The therapeutic relationship in DBT is also unique, as therapists attempt to balance strategies of acceptance and change. In balancing these strategies, DBT therapists also balance levels of autonomy and control in their interpersonal stance toward the patient. On the basis of prior results (Shearin & Linehan, 1992), we created an index of dialectical behavior where therapists are perceived as concurrently emancipating, affirming, protecting, and controlling. Similar to our results examining general levels of warmth and autonomy–control in the therapeutic relationship, the DBT pattern did not have a significant impact on introject or NSSI apart from its interaction with treatment. The DBT pattern of behavior was also not seen as occurring significantly more frequently for DBT therapists than CTBE therapists. Our results did, however, show that the effectiveness of the DBT pattern on NSSI was solely associated with its use by DBT therapists relative to CTBE therapists. For DBT participants, higher levels of the perceived dialectical pattern were associated with fewer instances of NSSI, whereas higher levels of the DBT pattern were associated with an increase in NSSI for CTBE participants. Furthermore, the effect of the DBT pattern, for DBT participants only, held even after controlling for general levels of warmth and autonomy–control in the therapeutic relationship.

These results confirmed and extended prior results that showed perceptions of DBT therapists as simultaneously instructing, controlling, and granting of autonomy to be associated with decreased suicidal behavior (Shearin & Linehan, 1992). Our data also suggest that the DBT-defined pattern, although not unique to DBT therapists, may only be an effective interpersonal stance for DBT clinicians who are skilled and trained in the use of a complicated and multifaceted interpersonal stance. An alternative hypothesis, based on the fact that the DBT dialectical stance is mandated in the treatment manual under specified conditions, is that therapists who rigorously follow a treatment manual have other characteristics that make them more competent therapists in enacting such a complex therapeutic stance. Although patients with BPD may pull for therapists to respond in a manner consistent with the defined DBT dialectic, CTBE therapists, who were more likely to be eclectic rather than manual based, may have lacked a rationale for responding in a dialectical manner, which in turn could have iatrogenic effects.

Limitations and Future Directions

The current study has a number of strengths including the use of multiple time points for the assessment of introject, symptomatic change, and the therapeutic relationship, all within the context of a larger randomized controlled trial. There are also a number of limitations to our study. In terms of measurement, our assessment of core BPD symptoms in this study was limited to NSSI. Further research is needed to extend these results to other domains relevant to BPD, such as emotion dysregulation and interpersonal problems. Although we used several time points for the assessment of introject and NSSI, we had only three time points for the assessment of the therapeutic relationship. This limited our ability to test hypotheses predicting sequential change in behaviors. In addition, our first assessment of the therapeutic relationship asked participants to rate the behavior of their therapist during the first 4 months of treatment. Such a method, while capturing the initial phase of treatment, does not capture the earliest perceptions of the therapeutic relationship, which have been shown to be a predictor of certain therapeutic outcomes (Klein et al., 2003).

An additional strength of this study was in the use of well-validated instruments for the assessment of intrapsychic outcome and the therapeutic relationship. Despite this strength our study was limited by the fact that all measurements were taken from the patient's perspective. Our data could be extended by including multiple perspectives of outcome and the therapeutic relationship including those of the therapist and independent observers. Additionally, the therapeutic relationship is a multifaceted construct that can be operationally defined in numerous ways (Castonguay et al., 2006). Our conceptualization of the therapeutic relationship was limited to the interpersonal relationship between patient and therapist and does not speak to other constructs related to the therapeutic relationship (e.g., agreement on goals, tasks).

An additional limitation was the present study's use of quarterly, self-reported, ratings of the therapeutic relationship. Although beneficial, these ratings provided a limited perspective on the DBT dialectic of acceptance and change. The therapeutic relationship in DBT is one that is fluid and dynamic, as clinicians are required to be flexible enough to take on a variety of interpersonal stances dependent upon the dominant dialectic presented in session. One such dialectic is that of acceptance and change. Given the fluid nature of the therapeutic relationship, a natural extension of the current study would be to examine the moment-to-moment interpersonal process in individual DBT sessions using observational ratings. Such a methodology would likely provide a more refined lens to better capture the dynamic movement, speed, and flow of

a DBT session including therapists' contingent use of affirmation and control in relation to patient behavior.

Our statistical tests limited our ability to make causal associations and instead are suggestive of possible causal pathways linking the therapeutic relationship, introject, and NSSI. The number of analyses that examined the order of change in NSSI, introject, and therapist behavior did not correct for a possible increase in Type I error. These concerns, however, are partly abated by the consistent findings regarding introject change and the association between therapist behavior and NSSI and introject in expected directions. Nevertheless, replication of these findings is needed. Last, a limitation of the present study was the lack of detailed understanding of the interventions provided by the CTBE control therapists. Our study is therefore limited to speaking to introject change and the therapeutic relationship in DBT and not to specific, alternative interventions that constituted the CTBE control condition.

This was the first study to examine intrapsychic factors in the outcome of DBT and the first study to examine the therapeutic relationship in a randomized controlled trial of DBT. The study demonstrated the beneficial impact of DBT on personality factors and NSSI and the importance of considering the therapeutic relationship in DBT. Future research is needed to study this phenomenon in more depth and with a wider range of outcomes.

References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Atkins, D. C., & Gallop, R. J. (2007). Rethinking how family researchers model infrequent outcomes: A tutorial on count regression and zero-inflated models. *Journal of Family Psychology, 21,* 726–735. doi:10.1037/0893-3200.21.4.726

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4,* 561–571.

Benjamin, L. S. (1974). Structural analysis of social behavior. *Psychological Review, 81,* 392–425. doi:10.1037/h0037024

Benjamin, L. S. (1983). *The Intrex user's manual, Parts I and II.* Madison, WI: Intrex Interpersonal Institute.

Benjamin, L. S. (1996). *Interpersonal diagnosis and treatment of personality disorders* (2nd ed.). New York, NY: Guilford Press.

Benjamin, L. S. (1997). Personality disorders: Models for treatment and strategies for treatment development. *Journal of Personality Disorders, 11,* 307–324. doi:10.1521/pedi.1997.11.4.307

Benjamin, L. S. (2000). *Intrex user's manual.* Salt Lake City: University of Utah Press.

Benjamin, L. S., & Wonderlich, S. A. (1994). Social perceptions and borderline personality disorder: The relation to mood disorders. *Journal of Abnormal Psychology, 103,* 610–624. doi:10.1037/0021-843X.103.4.610

Castonguay, L. G., Constantino, M., & Grosse Holtforth, M. G. (2006). The working alliance: Where are we and where should we go? *Psychotherapy: Theory, Research, Practice, Training, 43,* 271–279. doi:10.1037/0033-3204.43.3.271

First, M. B., Spitzer, R. L., Gibbon, M., Williams, J. B. W., & Benjamin, L. (1995). *User's guide to the Structured Clinical Interview for* DSM–IV *Axis II Personality Disorders, Patient Edition (SCID-I/P).* New York: Biometrics Research Department, New York State Psychiatric Institute.

Gilbert, P., & Leahy, R. L. (Eds.). (2007). *The therapeutic relationship in the cognitive behavioral psychotherapies.* New York, NY: Routledge.

Grosse Holtforth, M., & Castonguay, L. G. (2005). Relationship and techniques in cognitive–behavioral therapy—A motivational approach. *Psychotherapy: Theory, Research, Practice, Training, 42,* 443–455. doi:10.1037/0033-3204.42.4.443

Henry, W. P. (1996). Structural analysis of social behavior as a common metric for programmatic psychopathology and psychotherapy research. *Journal of Consulting and Clinical Psychology, 64,* 1263–1275. doi:10.1037/0022-006X.64.6.1263

Henry, W. P., Schacht, T. E., & Strupp, H. H. (1990). Patient and therapist introject, interpersonal process, and differential psychotherapy outcome. *Journal of Consulting and Clinical Psychology, 58,* 768–774. doi:10.1037/0022-006X.58.6.768

Janis, I. B., Veague, H. B., & Driver-Linn, E. (2006). Possible selves and borderline personality disorder. *Journal of Clinical Psychology, 62,* 387–394. doi:10.1002/jclp.20230

Karpiak, C. P., & Benjamin, L. S. (2004). Therapist affirmation and the process and outcome of psychotherapy: Two sequential analytic studies. *Journal of Clinical Psychology, 60,* 659–676. doi:10.1002/jclp.10248

Klein, D. N., Schwartz, J. E., Santiago, N. J., Vivian, D., Vocisano, C., Castonguay, L. G., . . . Keller, M. B. (2003). Therapeutic alliance in depression treatment: Controlling for prior change and patient characteristics. *Journal of Consulting and Clinical Psychology, 71,* 997–1006. doi:10.1037/0022-006X.71.6.997

Kliem, S., Kröger, C., & Kosfelder, J. (2010). Dialectical behavior therapy for borderline personality: A meta-analysis using mixed-effects modeling. *Journal of Consulting and Clinical Psychology, 78,* 936–951. doi:10.1037/a0021015

Leary, T. F. (1957). *Interpersonal diagnosis of personality.* New York, NY: Ronald Press.

Lejuez, C. W., Hopko, D. R., Levine, S., Gholkar, R., & Collins, L. M. (2005). The therapeutic alliance in behavior therapy. *Psychotherapy: Theory, Research, Practice, Training, 42,* 456–468. doi:10.1037/0033-3204.42.4.456

Linehan, M. M. (1993). *Cognitive behavioral treatment of borderline personality disorder.* New York, NY: Guilford Press.

Linehan, M. M. (1997). Validation and psychotherapy. In A. Bohard & L. Greenberg (Eds.), *Empathy reconsidered: New directions in psychotherapy* (pp. 353–392). Washington, DC: American Psychological Association.

Linehan, M. M., Comtois, K. A., Brown, M. Z., Heard, H. L., & Wagner, A. (2006). Suicide Attempt and Self-Injury Interview (SASII): Development, reliability, and validity of a scale to assess suicide attempts and intentional self-injury. *Psychological Assessment, 18,* 303–312. doi:10.1037/1040-3590.18.3.303

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., . . . Lindenboim, N. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs. therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry, 63,* 757–766. doi:10.1001/archpsyc.63.7.757

Lynch, T. R., Chapman, A. L., Rosenthal, M. Z., Kuo, J. R., & Linehan, M. M. (2006). Mechanisms of change in dialectical behavior therapy: Theoretical and empirical observations. *Journal of Clinical Psychology, 62,* 459–480. doi:10.1002/jclp.20243

Lynch, T. R., Trost, W. T., Salsman, N., & Linehan, M. M. (2007). Dialectical behavior therapy for borderline personality disorder. *Annual Review of Clinical Psychology, 3,* 181–205. doi:10.1146/annurev.clinpsy.2.022305.095229

Morey, L. C., & Zanarini, M. C. (2000). Borderline personality: Traits and disorder. *Journal of Abnormal Psychology, 109,* 733–737. doi:10.1037/0021-843X.109.4.733

Neacsiu, A. D., Rizvi, S. L., & Linehan, M. M. (2010). Dialectical behavior therapy skills use as a mediator and outcome of treatment for borderline personality disorder. *Behaviour Research and Therapy, 48,* 832–839. doi:10.1016/j.brat.2010.05.017

Pincus, A. L., Gurtman, M. B., & Ruiz, M. A. (1998). Structural Analysis of Social Behavior (SASB): Circumplex analyses and structural relations with the interpersonal circle and five-factor model of personality. *Journal of Personality and Social Psychology, 74,* 1629–1645. doi:10.1037/0022-3514.74.6.1629

Pincus, A. L., Newes, S. L., Dickinson, K. A., & Ruiz, M. A. (1998). A comparison of three indexes to assess the dimensions of structural analysis of social behavior. *Journal of Personality Assessment, 70,* 145–170. doi:10.1207/s15327752jpa7001_10

Pinheiro, J. C., & Bates, D. M. (2000). *Mixed-effects models in S and S-Plus.* New York, NY: Springer.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods.* Newbury Park, CA: Sage.

R Development Core Team. (2007). *R: A language and environment for statistical computing.* Vienna, Austria: R Foundation for Statistical Computing.

Robins, C. J., & Koons, C. R. (2000). The therapeutic relationship in dialectical behavior therapy. In A. N. Sabo & L. Havens (Eds.), *The real world guide to psychotherapy practice* (pp. 237–266). Cambridge, MA: Harvard Press.

Rosenthal, M. Z., Cukrowicz, K. C., Cheavens, J. S., & Lynch, T. R. (2006). Self-punishment as a regulatory strategy in borderline personality disorder. *Journal of Personality Disorders, 20,* 232–246. doi:10.1521/pedi.2006.20.3.232

Scheel, K. (2000). The empirical basis of dialectical behavior therapy: Summary, critique, and implications. *Clinical Psychology: Science and Practice, 7,* 68–86. doi:10.1093/clipsy.7.1.68

Schmidt, H. (2001). *Perceptions of the therapeutic relationship and the prediction of suicidal behavior in dialectical behavior therapy.* Unpublished doctoral dissertation, University of Washington, Seattle.

Shearin, E. N., & Linehan, M. M. (1992). Patient–therapist ratings and relationship to progress in dialectical behavior therapy for borderline personality disorder. *Behavior Therapy, 23,* 730–741. doi:10.1016/S0005-7894(05)80232-1

Shedler, J. (2010). The efficacy of psychodynamic psychotherapy. *American Psychologist, 65,* 98–109. doi:10.1037/a0018378

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis.* New York, NY: Oxford University Press.

Sullivan, H. S. (1953). *Interpersonal theory of psychiatry.* New York, NY: Norton.

Swann, W. B. (1997). The trouble with change: Self-verification and allegiance to the self. *Psychological Science, 8,* 177–180.

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