THE EFFECT OF THERAPIST USE OF VALIDATION STRATEGIES ON CHANGE IN CLIENT EMOTION IN AN INDIVIDUAL DBT TREATMENT SESSION

by

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ABSTRACT OF THE DISSERTATION

The effect of therapist use of validation strategies on change in client emotion in an individual DBT treatment session

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Dialectical behavior therapy (DBT) is a complex psychosocial treatment that was originally developed to treat borderline personality disorder (BPD), a disorder for which emotion dysregulation is central. One of the core DBT treatment strategies designed to target emotion dysregulation is validation. While validation is implicit in many therapies, within DBT there are six explicitly defined treatment strategies called validation levels (VL) that instruct the therapist on how and what to validate in a therapy session. Despite the importance placed on validation in emotion regulation, to date, there have been no studies designed to look at therapist use or impact of specific VLs. The aim of the current study was to explore therapist use of VLs throughout treatment in a DBT training clinic and examine the relationship between specific VLs and change in a client emotion within a DBT treatment session. Video recorded sessions of individual DBT treatment sessions for 35 participants were coded for therapist use of VLs. A repeated measures ANOVA was used to assess for change in therapist use of VLs over time and hierarchical linear modeling was used to correlate therapist use of these strategies with change in client emotion.
emotion within an individual treatment session. Results indicated there was not a significant change in therapist use of VLs throughout treatment. Additionally, there was not a significant relationship between overall frequency of therapist use of VLs and change in client emotion. An increase in frequency of therapist use of high VLs (i.e., VL 4 through 6) was associated with an increase in positive affect (PA) and a decrease in negative affect (NA) while an increase in frequency of low VLs (i.e., VL 1 through 3) was associated with a decrease in PA and no change in NA. An increase in frequency of VL 4 was associated with an increase in NA. VL 6 was associated with both an increase in PA and a decrease in NA. These findings suggest that specific components of validation strategies may be related to a decrease in emotion dysregulation and suggest possible mechanisms of change that may help to increase treatment efficacy for clients with significant emotional dysregulation.
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I. Introduction

**Borderline Personality Disorder**

Borderline personality disorder (BPD) is a severe personality disorder that is characterized by a pervasive pattern of intense and labile negative emotions, significant conflict in interpersonal relationships, and behavioral dyscontrol. It is estimated that BPD affects up to 10% of individuals receiving outpatient treatment, between 15 to 20% of psychiatric inpatients, and between 1 to 2% of the general population (for a review, see Trull, Stepp & Durrett, 2003). Rates of self-harm in BPD are significantly elevated, with 69 to 80% engaging in non-suicidal self-injury, approximately 75% attempt suicide at least once in their life, and up to 10% die by suicide (Black, Blum, Pfohl, & Hale, 2004; Gunderson, 1984; Linehan, Rizvi, Welch, & Page, 2000).

Patients with BPD use more treatment services than those with major depressive disorder or other personality disorders (Bender et al., 2001; Zanarini, Frankenburg, Hennen & Silk, 2004). Despite this high use of treatment, patients with BPD often report that the treatment is unsatisfactory and there are high rates of treatment failure (Hörz, Zanarini, Frankenburg, Bradford Reich & Fitzmaurice, 2010; Skodol, Buckley, & Charles, 1983; Tucker, Bauer, Wagner, Harlam & Sher, 1987). In fact, one study found that BPD patients received frequent but brief treatment from an average of six different therapists (Skodol et al., 1983).

Linehan (1993) has proposed a reorganization of the standard nine diagnostic criteria for BPD into five categories: emotional dysregulation, interpersonal dysregulation, behavioral dysregulation, cognitive dysregulation, and self-dysfunction. It has been suggested that emotional dysregulation is a core feature of BPD and results in
the pervasive pattern of intense and labile negative emotions, significant conflict in interpersonal relationships, and behavioral dyscontrol. The problems individuals with BPD experience with emotional dysregulation may also impact treatment. Within a treatment session, clients may easily become emotionally dysregulated when discussing specific events, difficult emotions, or perceived criticism and rejection from the therapist. In turn, this emotional dysregulation, perceived criticism and rejection may cause clients to become angered and act in a way that leads to the therapist feeling anger, helplessness, and burn-out (Linehan, 1993). For this reason, it may be especially important for a therapist to learn effective methods, such as the use of validation, for treating a client with significant emotional dysregulation.

Validation

The ability to regulate emotions is affected by a person’s reactivity or vulnerability to emotions, the skills one has to regulate problematic emotions, and interpersonal factors that impact the ability to use or learn skills for regulating emotions (Linehan, 1993; Shenk & Fruzzetti, 2011). Validation is important to consider in clients with BPD because validation has been shown to directly impact emotion regulation. Validation in therapy is defined by Linehan as “communication to the client that their responses make sense and are understandable within the current context” (Linehan, 1993). The use of validating statements has been shown to decrease negative affect and heart rate in healthy controls (Shenk & Fruzzetti, 2011) as well as in individuals who suffer from chronic pain (Edlund, Carlsson, Linton, Fruzzetti & Tillfors, 2014). It has been suggested that the acceptance of emotions is effective in soothing escalating
negative emotions and slowing negative reactivity (for a review, see Fruzzetti, 2006; Fruzzetti & Shenk, 2008). In turn, decreasing emotional dysregulation may allow for more effective communication, encourage effective problem solving, and help in building a trusting relationship between individuals (Koerner, 2012; Linehan, 1993; Shenk & Fruzzetti, 2011). In a recent study, the effects of parental use of validating and invalidating behaviors on children’s behaviors were examined for twenty-nine parent-adolescent relationships (Shenk & Fruzzetti, 2014). Results from this study found that parental use of validating behaviors were associated with greater relationship satisfaction. Invalidating parental behaviors were associated with greater externalizing behaviors in adolescent and less relationship satisfaction. The correlation between validation and relationship satisfaction and decrease in problematic behaviors suggest that a better understanding of therapist use of validation in treatment may be one way in which treatment for BPD may be improved.

Overview of DBT

While the use of validation is implicit in most therapies, Dialectical Behavior Therapy (DBT) is one treatment that explicitly includes validation strategies that outline how and what to validate. DBT was originally developed by Linehan as an outpatient treatment for women with a history of suicidal or non-suicidal self-injurious behaviors and was designed to target BPD and severe emotional dysregulation (Linehan, 1993).

Comprehensive DBT is made up of four treatment modes. These modes are weekly individual therapy, weekly group skills training, as-needed phone coaching, and therapist consultation team meetings. As a treatment, DBT is guided by three theories:
the biosocial theory, behavioral theory, and dialectical theory/philosophy. The biosocial theory posits that BPD develops and is maintained by a transaction between a biological emotional vulnerability and an invalidating environment. Emotional vulnerability is defined as a heightened emotional sensitivity, increased emotional reactivity, and a slower return to emotional baseline (Crowell, Beauchaine & Linehan, 2009; Linehan, 1993). An invalidating environment is defined as one that chronically and pervasively communicates to an individual that the individual’s internal experiences, including emotions, are wrong. A possible result of an invalidating environment is that individuals learn to self-invalidate as a way to cope with the difficult emotions they may experience. An environment may be considered invalidating in three ways: the individual’s emotions are not tolerated by people who are influential to the individual, the individuals’ expression of emotions are ignored until their emotions reach a significant level and someone finally responds, and appropriate skills for regulating emotions are not taught or modelled so they do not learn how to label, tolerate, or regulate emotions. Given the proposed importance placed on invalidation in the development and maintenance of BPD, examining the impact of validation in the treatment may be a particularly important starting point for examining active ingredients for treating a disorder characterized by significant emotional dysregulation.

The two remaining theories that guide DBT are behavioral theory and dialectical theory/philosophy. The behavioral theory influences how problematic behaviors are defined, assessed, and treated by the therapist. The third theory, dialectical philosophy, highlights that aspects of reality are interrelated and connected, made of opposing forces, and always changing. DBT is guided by this theory in two ways. First, therapists and
clients are encouraged to adopt a dialectical worldview that there are multiple “truths” and to seek a synthesis of these truths, and second, as a set of treatment strategies that may be utilized by the therapist when the client and therapist reach an impasse.

When conducting DBT, there are four sets of strategies a therapist may use to direct treatment. These strategies are dialectical strategies, core strategies, stylistic strategies, and case management (Linehan, 1993). Each of these strategies is important in DBT, however, the core strategies are considered to be the foundation for treatment (Linehan, 1997). The core strategies consist of validation (acceptance) and problem solving (change). The use and balance of core strategies, acceptance and change, as a treatment technique was developed through observations made by Linehan as she worked with suicidal individuals with BPD prior to the creation of DBT as a treatment model.

To date, over a dozen randomized controlled clinical trials have been conducted comparing DBT treatment to treatment as usual or to more active treatments for BPD (for a review, see Rizvi, Steffel & Carson-Wong, 2013). These studies have found that DBT is associated with greater decreases in the frequency and severity of self-injurious behaviors, decrease in frequency and length of inpatient hospitalization, and decrease in treatment drop-out. In addition, there is some evidence that DBT is associated with greater decreases in anger, depression, hopelessness, and suicidal ideation. A shorter, 6-month course of DBT has also been shown to be effective in reducing self-injurious behaviors, the number of hospitalizations, depression, and hopelessness (Carter, Willcox, Lewin, Conrad & Bendit, 2010; Koons et al., 2001; Stanley, Brodsky, Nelson, & Dulit, 2007). A meta-analysis by Kliem and colleagues (2010) suggest that DBT has a moderate effect size in the treatment of BPD compared to treatment as usual and community
treatment by experts and a small effect size when compared to alternative borderline specific treatments. Despite this body of evidence, there continues to be high drop-out rates from treatment and DBT is not effective for everyone with BPD. In addition, there is still relatively little known about what aspects of DBT are responsible for positive outcomes. A review article by Lynch and colleagues (2006) discuss several possible mechanisms of change in DBT and posit that any possible mechanism of change may function as a way to reduce the link between ineffective behaviors and dysregulated emotions. One such mechanism suggested is validation. For this reason, research on the use of validation in individual DBT treatment sessions is needed to better determine the possible critical agents of change within DBT.

*Levels of Validation*

Based on the significance Linehan places on validation in the development of DBT, she outlines six strategies, called “levels of validation” that instruct the therapist on how and what to validate within an individual treatment session. Each of these six validation levels (VLs) are considered important to use in treatment and are briefly summarized below.

Level 1, the lowest of the VLs, is defined as the therapist listening to and observing the client’s statements, feelings, and behaviors. In this level, the therapist demonstrates an active effort to understand the client. This level is often described as the therapist being “awake” and fully aware of the client. Throughout the session the therapist is fully engaged with the client and maintains a non-judgmental stance.
In Level 2, the therapist accurately reflects back, using language similar to the client, the client’s feelings, thoughts, and assumptions. This reflection is meant to add a sense of organization to what the client is saying or feeling within the session. In this level, the therapist does not add any additional interpretation.

When using Level 3, the therapist accurately verbalizes the client’s unspoken thoughts, feelings, or behaviors. This level is often called “mind reading” and requires that the therapist be especially attuned to the client. When done correctly, it is hypothesized that this level may be particularly validating to the client, as it communicates that therapist fully understands the client.

In level 4, the therapist explains to the client how the client’s thoughts, feelings, or behaviors make sense and are caused by certain events, including past learning or biological dysfunction. The therapist communicates that given these events, the client’s behaviors could not have been otherwise and are not a result of the client “not trying hard enough.” In Level 5, the therapist communicates to the client that the client’s emotions, thoughts, and behavior are justifiable, reasonable, or meaningful given the current context and/or normative biological functioning. In both VL 4 and 5, the therapist searches for what is effective, adaptive, or relevant about the client’s response given the current situation. It has been hypothesized that VL 5 is more temporally relevant and less pathologizing than VL 4. Therapists are instructed to use a VL 5 instead of VL 4 whenever possible (Linehan, 2013).

Level 6, the highest level of validation, is characterized as the therapist responding to the client in a genuine manner or in a way one would expect the therapist to talk to a friend. The therapist uses “radical genuineness” to validate the client as an
individual rather than validating only the client’s behaviors. The therapist does not treat
the client as fragile. When using this level appropriately, the therapist demonstrates to the
client that the client is someone of equal status, rather than as just a person with a
disorder. In this level, the therapist sees and responds to the strengths and capacity of the
client while maintaining a firm empathic understanding of who the client is.

Validation Research in DBT

To date, despite the proposed importance of validation in treatment, few studies
have been published that examine the role and impact of therapist use of validation on
DBT treatment outcomes. There have been no studies that examine therapist use and
impact of the specific VLs on client emotion or treatment outcome. One major limiting
factor has been, until recently, the lack of measures designed to assess validation
strategies.

One study concerning DBT and validation was conducted by Shearin and Linehan
(1992). This study focused on balance of validation (acceptance) and problem solving
(change) within an individual treatment session and how balancing these two treatment
strategies impact suicidal behaviors. Women with a diagnosis of BPD and who had a
history of self-injury were enrolled in a year-long comprehensive DBT program. For a
period of seven months, both the client and therapist completed a measure designed to
code for interpersonal behaviors. Clients’ self-injurious behaviors were also assessed
weekly during this time period. Results from this study found that clients’ high ratings of
therapist instruction, considered to be similar to DBT change strategies, and high ratings
of the therapist providing autonomy, similar to DBT validation strategies, were
associated with a decrease in suicidal behaviors in the following week. The researchers concluded that a dialectical focus was more effective in decreasing problematic behaviors than validation strategies alone or change strategies alone. This study supports the theoretical foundations of DBT, but does little to further the understanding what role validation may play in treatment outcome. Therapist use and the possible impact of the specific VLs were also not a consideration in this study.

A second study concerning DBT and validation examined the effect of validation on treatment outcome. In this study, DBT was compared to a comprehensive validation treatment plus a twelve step program (CVT+12S) (Linehan et al., 2002). The CVT+12S treatment condition was specifically designed for this study and consisted solely of the validation strategies. Women diagnosed with BPD and co-morbid opiate dependence were randomly assigned to receive DBT or CVT+12S for one year. Results from this study found that DBT and CVT+12S were both effective in reducing and maintaining the reduction of opiate use in the first four months of treatment. In addition, no clients enrolled in the CVT+12S condition dropped out of treatment compared to 36% of participants enrolled in the DBT condition who dropped out of treatment. Despite these positive short-term results, clients assigned to the CVT+12S condition experienced an increase in opiate use during the final months of treatment compared to those in the DBT condition. These results suggest that validation is equally effective compared to a change oriented treatment for short term changes. Validation may also play a significant role maintaining clients in treatment. However, these results also suggest that change strategies, not validation strategies, are necessary for long term change. The use of specific VLs or possible impact of VLs was not examined in this study.
In a more recent study concerning validation and DBT, a measure of the validation levels was developed and psychometrically evaluated. Prior to development of this measure, there was no standardized way to code for therapist use of the six VLs. This measure was developed to overcome this limitation. The psychometric properties of this measure, the DBT-Validation Level Coding Scale (DBT-VLCS), were examined and results from this study suggest that overall, the DBT-VLCS is a reliable and valid measure to code for the presence of therapist use of validation (Carson-Wong & Rizvi, 2014). This measure opens up the opportunity for research on validation that has not previously been possible, including examining the relationship between therapist use of the specific VLs and change in client emotion within a treatment session.

Aims and Hypotheses

While the studies by Shearin and Linehan (1992) and Linehan and colleagues (2002) support the inclusion of validation within DBT treatment, neither study focused specifically on how validation was used or how validation contributed to the effectiveness of the treatment. To date, there have been no studies designed to look at therapist use or impact of specific VLs on treatment. The aim of this current study is to examine therapist use of VLs over time and to examine how the overall use of VLs correlates to changes in client emotions in an individual DBT therapy session.

Participants for the current study enrolled in a six month DBT treatment program for BPD and consented to have each individual treatment session videotaped for training and research purposes. In addition, participants rated their emotions based how they felt “at that moment” before and after each session. In this study, the impact of therapist use of
global validation and specific VLs on change in client emotion was examined. We hypothesized that clients would report an increase in PA and a decrease in NA as therapist use of VLs increased in frequency within an individual DBT treatment session. In addition, we examined the effect of different VLs utilized by therapists. We hypothesized that an increase in frequency of therapist use of high VLs (i.e., VL 4 through 6) would be associated with increases in PA and decreases in NA. We hypothesized that an increase in frequency of therapist use of lower levels of validation (i.e. VL 1 through VL 3) would not be associated with a change in client emotion regulation.
II. Method

Participants

*Client Participants*

Participants were 35 adults ($M_{age} = 29.34, SD=10.74$) with a diagnosis of BPD who enrolled in the Dialectical Behavior Therapy program at Rutgers University (DBT-RU) between September 2010 and August 2014. The inclusion criteria for participation in DBT-RU are: a diagnosis of BPD, age 18 years or older, agreement to take part in assessments, videotaping/audiotaping and coding of their sessions by a research team, lives within 45 minutes of the clinic, and an agreement to discontinue all other forms of therapy. Exclusion criteria are: mental health problems that require services that cannot be provided by the DBT-RU (e.g., schizophrenia, life-threatening anorexia), non-English speaking, an indication that the client has an IQ of 70 or below, and inability to understand the research consent forms.

Eligibility for DBT-RU is determined through an intake assessment that is conducted by clinical psychology doctoral students. Once a client is considered eligible for treatment, he or she is assigned to a therapist and receives six months of standard DBT. Of the participants, 25 (71.43%) were female; 23 (65.71%) were Caucasian, 3 (8.57%) were Hispanic, 3 (8.57%) were Asian, and 5 (14.29%) were other ethnicities. All participants met criteria for a primary diagnosis of BPD. At the time of intake, 28 (80.00%) met criteria for comorbid mood disorder (i.e., major depressive disorder, dysthymia, bipolar disorder I, bipolar disorder II), 25 (71.43%) met criteria for an anxiety disorder (i.e. generalized anxiety disorder, post-traumatic stress disorder, specific phobia, social phobia, panic disorder and anxiety disorder not otherwise specified, 6 (17.14%)
met criteria for alcohol dependence, 2 (5.71%) met criteria for alcohol abuse, 10 (28.57%) met criteria for substance dependence, 1 (2.86%) met criteria for an eating disorder, and 4 (11.43%) met criteria for a somatoform disorder (i.e., hypochondriasis, body dysmorphic disorder, pain disorder, somatization disorder). The study was approved by the Rutgers Institutional Review Board and all participants provided written informed consent.

**Therapists**

The therapists in this study consisted of one expert DBT clinician and 17 advanced graduate students in a clinical psychology doctoral program ($M_{age}=28.22, SD=3.80; \text{Median}: 27$). Fifteen (83.33%) were female; 11 (61.11%) were Caucasian, 2 (11.11%) were Hispanic, 3 (16.67%) were Asian, and 2 (11.11%) were other ethnicity. The expert DBT clinician received intensive training in DBT from Linehan and is an international trainer and consultant in DBT. Ten student therapists attended a DBT intensive training and all therapists received weekly supervision and didactic training from an expert DBT clinician.

**Independent Raters**

The raters in this study consisted of one doctoral student in clinical psychology and two undergraduate students majoring in psychology ($M_{age}=22.33, SD=2.31$). Two (66.67%) were female and all identified as Caucasian. Each rater received training, including didactic instructions about the theory of DBT and levels of validation in the acceptance strategies utilized throughout treatment, and instruction on the DBT-VLCS.
Measures

*Structured Clinical Interview for DSM-IV, Axis I (SCID-I; First, Spitzer, Gibbon & Williams, 1995) and Axis II (SCID-II; First, Gibbon, Spitzer, Williams & Benjamin, 1997)*

The SCID is a widely used semi-structured interview that is used to determine diagnoses to all five axes in the DSM-IV. The SCID-I and SCID-II have shown moderate to excellent inter-rater reliability for the Axis I disorders and excellent inter-rater reliability for Axis II disorders (Lobbestael, Leurgans & Arntz, 2011). The SCID-I and SCID-II was administered during the initial assessment by trained clinical psychology graduate students to determine the client’s study eligibility and diagnoses.

*The Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988)*

The PANAS is a 20-item self-report measure that includes scales for both positive and negative emotions. Clients rate emotion adjectives using a 5-point Likert Scale. When given with short-term instructions (i.e. “how you are feeling right now”), the measure has demonstrated sensitivity to fluctuations in mood. The PANAS has been shown to have good reliability and validity (Watson, Clark & Tellegen, 1988). Clients are given the PANAS at the beginning and end of every treatment session and are instructed to respond based on how they feel “at that moment.”

*Dialectical Behavior Therapy- Validation Level Coding Scale (DBT-VLCS; Carson-Wong & Rizvi, 2014)*
The DBT-VLCS is a 7-item coding scale designed to code for the presence of the six different VLs as well as perceived client response to the therapist’s use of the VLs. Raters code for the presence of the VLs within the session using a 4-point Likert Scale that code for the possible range of therapist use of the level. Higher ratings indicate the level was used frequently and accurately throughout the session. Preliminary analyses of psychometric properties for the DBT-VLCS indicate that the coding scale has adequate reliability and validity (Carson-Wong & Rizvi, 2014; see Appendix for complete measure).

Procedure

Clients who enrolled for treatment in the DBT-RU received six months of standard treatment (i.e., weekly individual therapy, weekly skills group, and phone coaching as needed). As part of the DBT-RU, clients agreed to have both their individual and group sessions recorded to allow for therapist supervision, training, and coding. In addition, clients also agreed to complete the PANAS self-report measure based on how they were feeling “at that moment,” before and after each individual treatment session.

Four sessions were selected per client. In order to reduce a possible confound of time, when available, the fifth, tenth, fifteenth, and twentieth session were selected to maintain a consistent time interval between sessions. Of the thirty-five participants included in the study, ten dropped out of treatment early. For these individuals, only videos available prior to the drop out date were included in the analysis. If a video recording was unavailable for any other reason, such as the equipment failing to record or not being able to hear the audio, a recording from the prior session was used (22.31% of
total videos). Raters observed the entire session (approximately 60 minutes in length). In total, 121 treatment sessions were rated.

Three individuals were raters for this study. Each video was rated by one rater and each rater was randomly assigned a list of videos to code using the DBT-VLCS. Prior to beginning this rating procedure, raters received training, which included didactic instructions about the theory of DBT and levels of validation in the acceptance strategies utilized throughout treatment.

To establish reliability, raters coded multiple videos and the ratings were compared to gold standard (author’s ratings). Raters were then required to achieve excellent agreement on the final two tapes prior to beginning the study (ICC = .916; Mannuzza et al., 1989). To prevent rater drift, throughout the study, monthly reliability checks were conducted.

Statistical Analysis

Descriptive and exploratory analyses were conducted on PANAS data to examine change in client rating of PA and NA before and after treatment sessions throughout treatment. Descriptive and exploratory analyses were then conducted to examine the broad use of VLs by therapists within individual treatment sessions to determine if VL use by therapists’ changed over time. All descriptive analyses were conducted using SPSS 19.0.

A series of multilevel regression analyses were then conducted using Hierarchical Linear Modeling (HLM 7.01; Bryk & Raudenbush, 1992). This method was used as it can accommodate a possible bias due to non-independence of repeated assessment and
the nested nature of data. A two-level model was used with session data of the change in negative affect (NA) and positive affect (PA) at level 1 and clients at Level 2. A mixed effects model was used in SPSS to determine if a third level for therapist was needed. The significance level for all tests was $\alpha = 0.05$ (two sided).

The first HLM analysis conducted examined the relationship between overall use of VLs within a treatment session and change in client emotion. The independent variable for this analysis was overall use of validation (global validation) which was calculated by taking the total score (sum) on the DBT-VLCS across all VL items in a treatment session. Two sets of analysis were then run, one with a dependent variable of change in client PA ($PA_{post-session} - PA_{pre-session}$) and a second with a dependent variable of change in client NA ($NA_{post-session} - NA_{pre-session}$) as measured by the PANAS. A positive score on the change in PA variable indicates an increase in positive emotion over the course of the therapy session while a positive score on the change in NA variable indicates an increase in negative emotion over the course of a therapy session. The model equations used are displayed below:

Level 1: (Change in PA[NA])$_{ij} = \beta_{0j} + \beta_{1j}*(PA_{pre-session} - [NA_{pre-session}] score) + \beta_{2j}*(Global validation) + r_{ij}$

Level 2: (Client): $\beta_{0j} = \gamma_{00} + u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$
Two series of additional analyses were performed to further examine the impact of specific levels of validation on client emotion. The first set of these analyses examined the impact of the sum of high VLs (i.e., VLs 4 through 6) and the impact of the sum of low VLs (i.e., VL 1 through 3) on client change in emotion, separately for PA and NA. In the second series, the impact of each of the six individual VLs on change in client emotion was examined. The same model structure was implemented for these additional analyses. A recommended measure of effect size used for hierarchical data analysis is Cohen’s $f^2$ (Selya et al., 2012). By convention, $f^2$ effect sizes of 0.02, 0.15, and 0.35 are small, medium, and large, respectively.
III. Results

*Descriptive and Exploratory Statistics*

Descriptive statistics for change in client emotion over the course of an individual treatment session (PANAS data) are provided in Table 1. A paired sample t-test was conducted to determine if there were significant changes to positive and negative affect. We found a statistically significant increase in PA at the end of the treatment session, \( t(120)= -3.28 \) \( p=.001 \), and a statistically significant decrease in NA at the end of the treatment session \( t(120)= -2.11, p=.037 \).

Next we examined the overall therapist use of VLs as well as therapist use of specific VLs at each of the four time points, as indicated by the frequency of scores on the DBT-VLCS (range 0-3) (see Figures 1 through 6, Table 2 and Table 3). Collapsed across all time points, VLs 1, 3, and 2 were used most frequently, receiving average scores on the DBT-VLCS of 2.60, 2.10, and 1.95, respectively. Following this, VL 6, 4, and 5 were used less frequently, receiving average scores on the DBT-VLCS of 1.47, 1.11, and 1.00, respectively. Analysis of skewness and kurtosis suggest that normal distribution of the data can be assumed. A repeated measures ANOVA was conducted to examine if there was a change in therapist use of VLs over the course of time. We found no significant change in therapist use of any VL over time (VL1 \( F(2.14)= .86, p=.44 \); VL2 \( F(3)= .15, p=.93 \); VL3 \( F(3)= 1.79, p=.16 \); VL4 \( F(3)= .29, p=.84 \); VL5 \( F(3)= .68, p=.57 \); VL6 \( F(3)= .71, p=.55 \).

*Hierarchical Linear Modeling Analyses*
HLM was used to assess the relationship between therapist use of VLs and change in client emotion. A two-level model was used with session data at level 1 and the client data at level 2. The exclusion of a third level, therapist data, was justified by a mixed effects model examining the intraclass correlation coefficient (ICC) of therapist effects for both PA and NA. ICCs give the ratio of the total variance that depends on group membership and may be used to determine if a higher level is warranted as a small ICC value indicates only a small amount of dependence on the higher level (Lee, 2000). Using the mixed effects model, we found non-significant ICCs for both therapist effects on PA (ICC= .008) and NA (ICC= .022), indicating that only .8% of the variance in PA scores and 2.2% of the variance in NA scores can be attributed to therapist effects. Based on these analyses, a third level for therapist was not included in the models.

Separate models were used to examine the relationship of validation use and change in PA and NA. All results from the HLM models are displayed in Tables 4 and 5. In the first set of models, only the relationship between the independent variable of global validation and the dependent change in PA and NA were examined. A time factor was not included in any models as frequency of therapist use of VLs was shown to not change over the course of therapy time. Model results indicated that there was no significant relationship between global validation and change in PA or NA indicating that overall frequency of therapist use of VLs did not have any relationship with client change in emotion. The effect size for global validation and PA was $f^2 = -.0035$ and the effect size for global validation and NA was $f^2 = -.0016$, indicating that none of the variance was accounted for when the global validation terms were added to the models.
In the second sets of models run, the relationship between the sum of high levels of validation (i.e., VL 4 through VL 6) and the sum of low levels of validation (i.e., VL 1 through VL 3) and change in PA and NA were examined. Results from these analyses indicated that an increased frequency of therapist use of high levels of validation was significantly related to an increase in PA and an increase in frequency in therapist use of low levels of validation was significantly related to a decrease in PA. The effect size was $f^2 = .024$, a small effect. For NA, only an increase in frequency of therapist use of high levels of validation was significantly related to a decrease in NA. No change in NA was found for an increase in frequency of therapist use of low levels of validation. These results indicated that high levels of validation have a relationship with an increase in PA and a decrease in NA. In addition, low levels of validation are associated with a decrease in PA. The effect size was $f^2 = .031$, a small effect.

In the final set of models, the relationship between the six specific levels of validation (i.e., VL 1 through VL 6) and PA or NA were examined. Results from these analyses indicated a significant relationship between VL6 and PA; specifically an increase in frequency of therapist use of VL 6 is associated with an increase in PA. No other VL had a significant relationship with change in positive emotion. The effect size was $f^2 = -.028$, indicating there was no variance accounted for by adding the VL terms to the model. When examining the relationship between individual VLs and NA, an increase in frequency of therapist use of VL 4 was significantly related to an increase in NA and an increase in frequency of therapist use of VL 6 was significantly related to a decrease in NA. The other individual VLs were not associated with any change in NA. The effect
size was $f^2 = .00$, indicating there was no variance accounted for by adding the VL terms to the model.
IV. Discussion

The aim of the current study was to examine how the overall use of VLs correlates to change in client emotion in an individual DBT treatment session. In addition, we sought to examine therapist use of the specific VLs throughout six-months of treatment. This was the first study to examine the relationship between VLs and change in client emotion and how therapists use VLs over the course of time. The results of this study suggest that, in a DBT training clinic, therapist use of VLs did not change significantly over the course of treatment. In addition we found that frequency of therapist global use of validation was not related to change in client emotion for either PA or NA. When examining change in PA, we found that an increase in frequency of therapist use of high VLs was associated with an increase in PA while an increase in frequency of therapist use of low VLs was associated with a decrease in PA in an individual treatment session. When examining the specific VLs, we found that only an increase in frequency of therapist use of VL 6 was associated with an increase in PA. In regards to change in NA, we found that an increase in frequency of therapist use of high VLs was significantly associated with a decrease in NA while any rate of therapist use of low VLs was not associated with any change in emotion. Upon further examination of the relationship between change in negative emotion and the specific VLs, we found that an increase in frequency of therapist use of VL 4 was significantly associated with an increase in NA and an increase in frequency of therapist use of VL 6 was significantly associated with a decrease in NA in individual DBT treatment session. Each of these findings will be discussed in detail.

To date, there have been no studies that examined the specific use of VLs by
therapists. Results from this study show that, independent of time, VL 1 (i.e., therapist listening with full awareness), is highly used by therapist in a DBT training clinic. In fact, no session was given a rating of “0,” indicating that this level was present in every session coded. VL 2 (i.e., “accurate reflection of the client’s feelings, thoughts, and assumptions”) and VL 3 (i.e., “communication to the client that the therapist understands the client’s experience and the client’s emotions, thoughts and behaviors in response to the event that have not been verbalized”) were also highly used and no sessions were given a rating of “0.” Both VL 4 (i.e., “communication from the therapist that all behaviors are caused by certain events, including past learning or biological dysfunction”) and VL 5 (i.e., “communication from the therapist that all behavior is justifiable, reasonable, or meaningful in terms of the present context and normative biological functioning”) were utilized least frequently by therapists in the training clinic. In fact, the score most frequently received for these VLs was a “1,” indicating that the VL was only used a “few” times during the session.

It is likely that VLs 1 through 3 were used frequently because these levels function primarily as communication to the client that the therapist hears what the client is saying in a session. Use of these levels is not situation specific. For example, when conducting a chain analysis, a therapist may use VL 2 at any point within the chain to summarize what the client has just stated. However, a therapist may feel that VL 4 and VL 5 are more situation or context specific and that there are fewer opportunities to uses these strategies. When going through specific steps in a chain analysis, the therapist may not think to use a VL 4 or VL 5 unless the client becomes emotionally dysregulated. For example, if when conducting a chain analysis the client begins to cry and states “my
mother told me that she hasn’t seen any positive changes since I began treatment and thinks I’m still a screw up,” here the therapist may be cued by the increase in negative emotion and use a VL 5 and say “that would really hurt me too, if I heard my mother completely ignored all the hard work I had been doing to change my behavior.” A therapist may also not use a VL 4 of VL 5 until the client begins to speak about a specific incident or memory, such as if a client expresses anger at receiving a ticket for a traffic violation. Here the therapist may use a VL 5 for this specific instance by stating, “I know I would have been really angry too, if I was the only one to receive a speeding ticket while everyone else was going the same speed as me!” Given this, it is possible that in a training clinic, therapists are more likely to use a VL 4 or VL 5 in specific circumstances, leading to a lower frequency of use when compared to a VL 2 or VL 3.

Independent of time, VL 6 (i.e., therapist displays radical genuineness), was moderately used and most frequently received a score of “1” or “2.” A score of a “1” indicates that “the therapist maintains the inherent therapist-client hierarchy in the session” and a score of “2” indicates that “throughout the session, there are a few instances in which the therapist goes beyond the therapist-client hierarchy and the therapist responds to the client in a genuine manner.” This level may be most associated with the relationship between therapist and client, and will be discussed further below.

One of the first aims of this study was to explore therapist use VLs over the course of treatment. Clients in this study enrolled in a six-month treatment study within a DBT training clinic and the fifth, tenth, fifteenth, and twentieth sessions were coded for therapist use of VLs. Given the proposed role of emotional dysregulation in the development and maintenance of BPD and the impact validation has been shown to have
on emotion regulation (Koerner, 2012; Linehan, 1993; Shenk & Fruzzetti, 2011; Shenk & Fruzzetti, 2014), learning to self-validate may be an important goal for treatment. It has been hypothesized that as self-validation is learned by the clients, the need for therapist validation may change over time (Linehan, 1997). Therapist use of validation has been suggested to be effective by modeling and teaching clients how to respond to themselves in a validating manner. In an invalidating environment, clients learn the way they are thinking, feeling, or behaving about a situation is incorrect. Validation by a therapist may allow clients to learn to trust themselves in thinking that their emotions, thoughts, or behaviors, are correct. If, over the course of treatment, clients learn to validate themselves and/or learn that their thoughts, feelings, or behaviors are valid, one might expect the need for therapist use of validation to decrease in frequency over the course of treatment. However, based on our results, we did not find a significant change in therapist use of VLs over the course of six months. It is possible that the length of treatment in this study was not a long enough period of time for clients to learn to self-validate, and therefore a similar rate of therapist use of validation was required throughout the treatment. If a longer time course of treatment was used, it is possible the rate of therapist validation may have decreased. However, it is also possible that therapists continued to use similar levels of validation even though clients learned to self-validate. Based on the results from this study, we do not know if the same frequency of validation was needed by the client throughout treatment. Consistent use of VLs by the therapist may not necessarily mean that the client has not learned self-validation; it could simply mean that therapists have not learned to reduce their own use of VLs. More research would be needed to examine if the ability of the client to self-validate changes over the course of
We had hypothesized that clients would report an increase in PA and a decrease in NA as therapist use of VLs increased in frequency within an individual DBT treatment session. This hypothesis was not supported by the current study as the frequency of therapist use of VLs was not associated with any change in client emotion. In fact, the effect sizes in the models including global validation and PA and NA were negative, indicating that inclusion of global validation in the model decreased the amount of variance accounted for in the null model alone. This suggests that the broad application of validation strategies alone does not have an impact on change in client emotion. The need for validation may change depending on the context and characteristics of the situation. Validation has been proposed to be principle-based (i.e., strategies that are implemented flexibly and based on the guiding theory and mechanisms of change) rather than protocol-based (i.e., strategies implemented in a step-by-step manner) (Dimeff et al., 2015). Results from this study support this characterization and suggest that the application of validation strategies are more nuanced than simply using each validation level frequently in a treatment session.

We had also hypothesized that an increase in frequency of therapist of use of high VLs (i.e., VLs 4 through 6) would be associated with an increase in PA and a decrease in NA while the increase in frequency of therapist use of low VLs (i.e., VLs 1 through 3) of validation would not be associated with a change in client emotion. This hypothesis was partially supported and inclusion of high and low VL variables was shown to have a small effect size on the model. When VLs were broken down into high VLs and low VLs, we found that greater frequency of therapist use of high VLs was associated with an
increase in PA and greater frequency of low VLs was associated with a decrease in PA. In addition, when examining the relationship between high VLs and low VLs and NA, we found that an increase in frequency of high VLs was significantly associated with a decrease in NA. Frequency of therapist use of low VLs was not associated with any change in NA. A previous study that examined the relationship between validation and affect focused on the impact of validation on NA (Shenk & Fruzzetti, 2011). To date, no study has specifically focused on the relationship between validation and PA. In the study by Shenk and Fruzzetti (2011), individuals who received invalidating responses when performing a stress inducing task reported higher NA throughout the study when compared to individuals who experienced validating comments. Based on these findings, authors concluded that invalidating responses work to increase emotional reactivity during times of high stress, while validation may minimize the effects of the stress inducing task, and therefore preventing escalation of problematic negative emotions. The results from the current study build on our understanding of validation by examining the impact of validation on NA and PA within a clinical context. Within a therapy setting, therapist use of high levels of validation appears to be associated with a decrease in NA experienced by clients. However, it is important to note that not all levels of validation have an equal relationship with regards to NA. Low VLs appear to have no relationship with negative emotion. High VLs communicate to clients that their behavior is normal, understandable, and non-pathological while low VLs communicate to the client that the therapist is listening and understands what the client is thinking, feeling, or saying. Based on this, it is possible that simply communicating that one understands what the client is saying is not sufficient enough to be associated with a decrease in NA.
The negative emotions of shame and guilt are often associated with BPD (Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2010; Rizvi, Brown, Bohus, & Linehan, 2011; Rüsch et al., 2007). In an invalidating environment, clients receive the message that there is something wrong or “bad” with how they are thinking, feeling, or behaving. For example, if a client has a pet die during her childhood and she cries at the loss of the pet, in an invalidating environment, the client might be told to “suck it up and get over it,” conveying the message that her emotions are not justified and that she is “weak.” If messages such as this are chronically conveyed, the client may develop secondary emotions, such as shame or guilt, whenever she experiences a primary emotion of sadness. For this reason, it is possible that the normalization inherent in high VLs teaches the client that there is nothing “wrong” with her and this results in a decrease shame and guilt. However, more research is needed to determine the relationship between high VLs and clients’ experience of these emotions.

With regards to positive emotions, an increase in frequency of therapist use of high VLs was associated with an increase in PA while a high frequency of therapist use of low VLs was associated with a decrease in PA. This suggests that the act of normalizing what the client is thinking, feeling, or behaving is associated with clients feeling more positively. However, the act of simply demonstrating to the client that the therapist is attending and listening to the client does not have such a relationship. In fact, this communication by the therapist is associated with a decrease in how positively a client feels. However, this communication is not associated with an increase in NA. While there is evidence that PA and NA are independent constructs (Goldstein & Strube, 1994) and clients may experience both positive and negative emotions at the same time
(Larson, McGraw & Cacioppo, 2001), this is still a difficult finding to interpret. It is possible that the simple act of reflecting back to the client what the client has just stated (i.e., VL 2) or communicating to the client the client’s emotions, thoughts, or behaviors that have not yet been verbalized (i.e., VL 3) may lead the client to feel less positively, without causing the client to experience an increase in NA. Items on the PANAS PA subscale include, feeling alert, excited, inspired, determined, attentive, and active. The act of hearing one’s own words, when the therapist uses a VL 2 to summarize what the client has just stated, may make a client less attentive or excited. This could occur without the client experiencing an increase in irritability, feeling distressed, guilt, hostility, or feeling afraid, which are some of the items on the PANAS NA subscale. However, the current study is the first to examine the impact of validation on positive emotions and more replication is necessary to examine this relationship.

Upon further analysis of the individual VLs (i.e., VL 1 through VL 6), our hypothesis, that an increase in frequency of therapist use of each high VL would be associated with an increase in PA and a decrease in NA, while an increase in frequency of therapist use of low VLs would not be associated with increased emotion regulation, were partially supported. With regards to specific VLs and PA, only an increase in frequency of the highest VL, VL 6, was associated with an increase in PA. In addition, VL 6 was also associated with a decrease in NA. VL 4 was associated with an increase in NA. The effect size in the model for PA and each VL was negative and the effect size in the model for NA and each VL was .00. While this suggests that none of the variance is accounted for by the addition of the individual VLs in the models, it is possible that the inclusion of VL 6 in both the PA and NA models does account for some proportion of the
variance, but this is not observed in the effect size due to the number of other variables included in the model that do not account for any variance.

It has previously been stated that, when possible, a VL 5 should always be used over a VL 4 in order to decrease emotion dysregulation (Linehan, 2013). The current data do not support this statement. We found that VL 4 (i.e., “communication from the therapist that all behaviors are caused by certain events, including past learning or biological dysfunction”) was associated with an increase in client NA while VL 5 (i.e., “communication from the therapist that all behavior is justifiable, reasonable, or meaningful in terms of the present context and normative biological functioning”) was not associated with any change in emotion.

The biosocial theory of BPD posits that BPD develops and is maintained by a pervasive invalidating environment transacting with a biological emotional vulnerability (Linehan, 1993). An invalidating environment has two primary characteristics. First, it tells clients that they are wrong in their thoughts or feelings regarding their own experiences. Second, it attributes the experiences to socially unacceptable characteristics of the individual (e.g., the client was attacked because they are weak). In a pervasive invalidating environment, clients do not learn to adequately identify their own emotions or control their reactions to the situation. Given this, it is understandable that VL 5 has been hypothesized to be especially impactful as it expresses to clients that their thoughts, feelings, and behaviors are normal and understandable given the current context and that anyone would feel that way. When using a VL 5, a therapist may say “anyone in the world would feel the way you did” or “I myself feel that way.” However, our data found no association with therapist use of VL 5 and change in emotion and VL 4 was associated
with an increase in NA. The correlation between an increase in frequency of therapist use of VL 4 and an increase in NA was a particularly interesting finding in this study. However, while results from this study suggest that VL 4 is not associated with a reduction in NA, this does not mean that VL 4 is not validating. Instead, VL 4 may function to both communicate and validate one’s experience as well as result in an increase in NA. In an example from our current study, a client stated to the therapist that she was feeling “so tired, and having a difficult time getting out of bed and doing anything.” In response, the therapist used a VL 4 and stated, “That makes sense. You are depressed! That is your depression.” It is possible that this strategy works to both validate the client’s experience (i.e., communicate to the client that the therapist understands the client’s biological vulnerability to depression is making it hard for the client to function) as well as confirm that the client’s negative beliefs about herself are correct (i.e., you do have a problem because of a biological predisposition).

Despite the association between VL 4 and an increase in NA, VL 4 may still be an effective strategy. Previous studies have found an increase in treatment retention (Linehan et al., 2002) and an increase in relationship satisfaction (Shenk & Fruzzetti, 2014) associated with validation. I hypothesize that the use of VL 4 may be a strategy associated with these positive outcomes despite the short term association with an increase in NA. One study that examined the relationship between feedback clients received from a therapist and treatment retention found that clients who received feedback from a therapist that was congruent with their beliefs, even if the beliefs and feedback were negative, returned the following week with increased self-esteem when compared to those who received incongruent feedback (e.g., negative beliefs and positive
feedback; Finn & Tonsager, 1992). It is possible that VL 4 may work to confirm clients’ negative belief about themselves and result in an increase in negative emotion. However, the use of VL 4 also conveys to the client that the therapist understands the client, which may lead to an increase in feeling understood and result in an increase in treatment retention. However, more research is necessary to examine the relationship between of VL 4 on treatment outcome and treatment retention.

It is important to note that while the DBT-VLCS, the measure used to code for the presence of therapist use of the VLs, was found to overall be a reliable and valid measure (Carson-Wong & Rizvi, 2014), the measure achieved good content validity for VLs 1 through 4 and VL 6. The item coding VL 5 did not achieve good content validity. In the study assessing validity, good content validity was defined as greater than 75% agreement on an item (a response of either “agree” or “strongly agree”) in a poll administered to DBT experts. While VL 5 did not meet the criterion for good content validity, nearly two-thirds of the polled experts still agreed with the definition. Based on expert responses to this item, the greatest disagreement was found with the anchors offered in the measure. Specifically, it was noted that for VL 5, it is clinically important that the therapist validate the valid and not validate the invalid. This is particularly relevant for the anchor of “0,” which states “the therapist does not use this level OR throughout the treatment session the therapist implies or states what the client does is not normal.” Given the importance placed on validating the valid and not validating the invalid, it was clarified in the training of the raters for this current study that the “0” anchor is also applicable if the therapist implied or stated what the client does is not normal when there is evidence that the client’s behavior is actually normative. With this
clarification, it is unlikely that the possible lack of validity for VL 5 impacted the current study’s results.

The frequency and presence of therapist use of VL 6 (i.e., therapist displays radical genuineness and responds in a way one would expect the therapist to talk to a friend/peer/equal) was also found to be significantly related to both an increase in PA and a decrease in NA. As the function of VL 6 is to communicate to clients that the client is an equal and respected by the therapist as a person rather than as a person with a psychological disorder, this level has interesting implications in regards to therapeutic alliance. In research studies regarding possible mechanisms of change in the treatment of personality disorders in general, therapeutic alliance has received significant attention (Forster, Berthollier & Rawlinson, 2014). Specifically, in the treatment of BPD with DBT, the use of validation has been proposed to be a possible mechanism of change as well as a way to increase therapeutic alliance (Lynch et al., 2006). One study examining the relationship between therapeutic alliance in a BPD population and treatment outcome found a significant relationship between ratings of a positive therapeutic relationship and a decrease in self-injury among clients receiving DBT (Bedics et al., 2012). The opposite trend was found for clients enrolled in the community treatment by experts condition. In a review study by Forester and colleagues (2014) researchers concluded that therapeutic alliance has a role in the change process for different therapeutic interventions, but that this relationship may change based on personality disorder and treatment type. In DBT, the strategy of being genuine with a client and responding to the client as one would respond to a friend may help to build a stronger alliance between a therapist and client and may be indicative of the relationship, or alliance, between therapist and client. More
research is needed to clarify the relationship between VL 6 and the therapeutic alliance. However, this current study suggests that VL 6 may be one possible mechanism of change.

Limitations

Several limitations must be considered in drawing broader conclusions concerning the results of this study. A previous study examining the impact of validation on treatment outcomes found that that a dialectical focus was more effective than validation strategies alone or change strategies alone in reducing suicidal behaviors (Shearin & Linehan, 1992). Given that the primary dialectic in DBT focuses on the balance of change strategies and validation strategies, a significant limitation of this study is the lack of dialectical focus as only validation strategies were considered. The nature of this study was correlational and only one possible component (i.e., validation strategies) was considered. There were likely many factors that naturally arose within a treatment session that impacted clients’ emotions. Given this, we have little evidence to conclude causality in the results of this study. Based on the study by Shearin & Linehan (1992) one major confounding variable may have been the presence of change strategies. Despite this limitation, this study is the first to attempt to examine any relationship between therapist use of validation strategies and change in client emotion. Results from this study still provide important information about therapist use of VLs throughout treatment. Further understanding of the causality and nature of the relationship between validation and changes in emotion would benefit from a more controlled study in which change strategies and other relevant variables are also taken into account.
The DBT-RU is a university based training clinic and the therapists included in this study were advanced graduate students in a clinical psychology doctoral program and one expert DBT clinician. Graduate students in this training program were novice DBT therapists who received weekly supervision and didactic training from an expert clinician. Training of this nature is not typical in a real world setting. The data gathered concerning frequency of therapist use of validation strategies over the course of treatment may have been skewed as therapists in this study could have used wider range of all validation strategies throughout the course of treatment than would an individual therapist in a natural setting. It is possible that the act of receiving weekly didactic training and supervision by a DBT expert increases the breadth of DBT strategy use throughout treatment. In addition, the fact that the therapists were novice therapists in training may have also impacted the quality of therapy received by the client. Given this, we cannot conclude that the therapists in this study are representative of all DBT therapists in a community setting, which reduces the generalizability of findings from this study.

Another aspect to consider is the length of treatment clients received in the DBT-RU. The DBT-RU clinic enrolls clients in six-months of standard and comprehensive DBT. Even though studies have found evidence of efficacy for a shorter six-month course of DBT (Carter, Willcox, Lewin, Conrad & Bendit, 2010; Koons et al.,2001; Stanley, Brodsky, Nelson, & Dulit, 2007), the most standard duration used in research trials is twelve-months (Linehan, 1993). Given this, it is also possible that frequency of therapist use of validation strategies may change more significantly over the course of a year than observed over the course of six-months. Further research should be conducted to examine if these results generalize to a non-training clinic sample of therapists and examine if
there is a difference in therapist use of validation over the course of standard twelve-month DBT.

The type of validation that was coded by the DBT-VLCS is also worth mentioning as a possible limitation. There are two types of validation that can occur within a treatment session: topographical and functional. Topographical validation is defined as explicit and verbal and a strategy in which the therapist may respond overtly with words that either directly or indirectly convey understanding (Linehan, 1997). For example, if the client states, “seeing my ex-boyfriend with his new girlfriend really made me really upset” the therapist may respond with, “So, seeing someone that you were once close with in that situation was difficult for you.” The other type of validation is functional validation, which is defined as implicit and validating by “deeds” (Linehan, 1997). For example, if a client states “I don’t want to talk about this anymore,” a therapist may functionally validate the client by changing the topic. According to the DBT model, both types of validation are important and must be balanced throughout a treatment session by the therapist. In some instances, topographical validation and functional validation may be in conflict. For example, in the instance in which the client requests to stop discussing a situation because it difficult for the client to tolerate the emotions involved in the discussion, functional validation would require the therapist to switch topics, while topographical validation may require the therapist to continue speaking about the topic (VL 6; therapist displays radical genuineness, holds the client’s treatment goals in mind, and treats the client as non-fragile). In this current study, only topographical validation was coded using the DBT-VLCS. Therefore, the dialectic of
balancing topographical and functional validation was not studied and the impact that functional validation has on client emotions was not assessed.

A final possible limitation concerns the range of scores collected using the DBT-VLCS. For VLs 1 through 3, there were no instances in which a score of “0” was coded. For the higher VLs, over the course of the four time points the full range of scores was used (i.e., 0 through 3), however, there were specific time points in which the full range of scores was not used. For example, the score of “0” was only coded in time 3 and time 4 for VL 6. This restriction of range may have reduced the power of the current study and increased the chance of a type II error as the correlations between data points were weakened by the lack of variability of scores.

Conclusion

Despite these limitations, this study provides preliminary information regarding the relationship between validation strategies and change in client emotion. We hypothesized that clients would report an increase in PA and a decrease in NA as therapist use of VLs increased in frequency within an individual DBT treatment session. We also hypothesized that an increase in frequency of therapist use of high VLs (i.e., VL 4 through 6) would be associated with increases in PA and decreases in NA while an increase in frequency of therapist use of lower levels of validation (i.e. VL 1 through VL 3) would not be associated with a change in client emotion regulation. Overall, our hypotheses were partially supported. An increase in frequency of therapist use of high VLs was associated with a change in client emotion, specifically with regards to an increase in PA and a decrease in NA. In addition, we found that therapist use of the
specific validation strategy of VL 6 was correlated with an increase in PA and a decrease in NA. These results suggest that specific components of validation strategies are associated with emotion regulation and suggest possible mechanisms of change that may help to increase treatment efficacy for clients with significant emotional dysregulation. This study was a first step at examining the relationship between therapist use of validation and change in client emotion in a clinical sample. Future research that expands upon this study by examining the other core DBT strategies, the change strategies, are necessary and will lend further information into possible mechanisms of change in DBT.
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Table 1
Pre-, Post-Session, and Change Score for PANAS (n=121)

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<th>M</th>
<th>SD</th>
<th>Median</th>
<th>Range</th>
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<td>Pre-Session</td>
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<tr>
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Table 2

Frequency of scores on DBT-VLCS for VL 1 through VL 3 across all time points

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<th>DBT-VLCS Anchor</th>
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<tr>
<td>M</td>
<td>2.57</td>
<td>2.46</td>
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<tr>
<td>SD</td>
<td>.50</td>
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<td>SD</td>
<td>.74</td>
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Table 3

Frequency of scores on DBT-VCS for VL 4 through VL 6 across all time points

<table>
<thead>
<tr>
<th>Score on DBT-VLCS</th>
<th>Time 1 (n=35)</th>
<th>Time 2 (n=35)</th>
<th>Time 3 (n=26)</th>
<th>Time 4 (n=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4</td>
<td></td>
<td></td>
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</tr>
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<td>0</td>
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<td>4</td>
</tr>
<tr>
<td>1</td>
<td>14</td>
<td>14</td>
<td>12</td>
<td>15</td>
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<td>7</td>
<td>9</td>
<td>3</td>
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<td>3</td>
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<td>3</td>
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<tr>
<td>M</td>
<td>1.03</td>
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<tr>
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<td>.69</td>
<td>.96</td>
</tr>
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<td>SD</td>
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Table 4

Standardized Beta Coefficients, T-ratios, and P-values for HLM models for Change Scores of Positive Affect

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Affect</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>-0.16</td>
<td>-0.87</td>
<td>0.39</td>
</tr>
<tr>
<td>VL4-6</td>
<td>1.21</td>
<td>2.82</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>VL 1-3</td>
<td>-0.95</td>
<td>-2.73</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>VL 1</td>
<td>-1.5</td>
<td>-1.45</td>
<td>0.15</td>
</tr>
<tr>
<td>VL 2</td>
<td>-0.89</td>
<td>-1.16</td>
<td>0.25</td>
</tr>
<tr>
<td>VL 3</td>
<td>-0.23</td>
<td>-0.28</td>
<td>0.78</td>
</tr>
<tr>
<td>VL 4</td>
<td>-0.54</td>
<td>-0.88</td>
<td>0.38</td>
</tr>
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<td>VL 5</td>
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<td>0.72</td>
<td>0.50</td>
</tr>
<tr>
<td>VL 6</td>
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<td>2.22</td>
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Table 5

Standardized Beta Coefficients, T-ratios, and P-values for HLM models for Change Scores of Negative Affect

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Affect</td>
<td></td>
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</tr>
<tr>
<td>Global</td>
<td>0.10</td>
<td>0.5</td>
<td>0.62</td>
</tr>
<tr>
<td>VL 4-6</td>
<td>-0.73</td>
<td>-2.52</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>VL 1-3</td>
<td>0.58</td>
<td>1.61</td>
<td>0.11</td>
</tr>
<tr>
<td>VL 1</td>
<td>0.16</td>
<td>0.16</td>
<td>0.87</td>
</tr>
<tr>
<td>VL 2</td>
<td>0.31</td>
<td>0.44</td>
<td>0.66</td>
</tr>
<tr>
<td>VL 3</td>
<td>0.7</td>
<td>1.18</td>
<td>0.24</td>
</tr>
<tr>
<td>VL 4</td>
<td>1.22</td>
<td>2.02</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>VL 5</td>
<td>-0.98</td>
<td>-1.6</td>
<td>0.12</td>
</tr>
<tr>
<td>VL 6</td>
<td>-1.56</td>
<td>-2.36</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>
Figure 1

VL 1 Range of scores collapsed across all time points
Figure 2

VL 2 Range of scores collapsed across all time points
Figure 3

VL 3 Range of scores collapsed across all time points
Figure 4

VL 4 Range of scores collapsed across all time points
Figure 5

VL 5 Range of scores collapsed across all time points
Figure 6

VL 6 Range of scores collapsed across all time points
Appendix

Dialectical Behavior Therapy- Validation Level Coding Scale (DBT-VLCS)

**Therapist use of validation levels (code based on therapist behavior):**

<table>
<thead>
<tr>
<th>Level 1: listening to and observing the client’s statements, feelings, and behaviors, as well as demonstrating an active effort to understand the client</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2) Level 2: accurate reflection of the client’s feelings, thoughts, and assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Level</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

3) **Level 3:** communication to the client that the therapist understands the client’s experience and the client’s emotions, thoughts and behaviors in response to the event that have not been verbalized

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The therapist does not use this level OR each time the therapist attempts this level, the rater thinks the therapist is incorrect (ex. the therapist incorrectly interprets the clients verbal or non-verbal cues).</td>
</tr>
<tr>
<td>1</td>
<td>Throughout the treatment session there are a few instances in which the therapist accurately articulates the client’s unspoken thoughts, feelings, or behaviors OR throughout the treatment session the therapist attempts this level several times and the rater thinks some instances are correct, but there are many instances in which the rater thinks the therapist is incorrect.</td>
</tr>
<tr>
<td>2</td>
<td>Throughout the treatment session there are several instances in which the therapist accurately articulates the client’s unspoken thoughts, feelings, or behaviors OR the therapist attempts this level several times and there are few instances in which the rater thinks the therapist is incorrect.</td>
</tr>
<tr>
<td>3</td>
<td>Throughout the treatment session there are frequent instances in which the therapist accurately articulates the client’s unspoken thoughts, feelings, or behaviors (ex. if the client begins to cry in a session, the therapist responds in a way that verbalizes what the client has not verbalized, such as “so, it seems that seeing your ex with a new girlfriend led you to feel lonely and hopeless”) in a way that the rater thinks is correct.</td>
</tr>
</tbody>
</table>

4) **Level 4:** communication from the therapist that all behaviors are caused by certain events, including past learning or biological dysfunction

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The therapist does not use this level OR throughout the treatment session the therapist implies that the problem the client is experiencing is a result of him/her not trying hard enough or pathologizes client’s biology or disorder.</td>
</tr>
<tr>
<td>1</td>
<td>Throughout the treatment session the therapist attempts this level a few times OR the therapist attempts this level several times and rater believes some instances are correct but a majority of attempts are incorrect.</td>
</tr>
<tr>
<td>Level</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>2</td>
<td>Throughout the treatment session there are several instances in which the therapist states that the client’s thoughts, feelings, or behaviors are understandable based on the client’s learning history, biology, or disorder OR the therapist attempts this level several times and there are few instances in which the therapist implies that the problem the client is experiencing is a result of him/her not trying hard enough.</td>
</tr>
<tr>
<td>3</td>
<td>Throughout the treatment session there are frequent instances in which the therapist states that the client’s thoughts, feelings, or behaviors could not have been otherwise and are understandable based on the client’s learning history, biology, or disorder AND there are no instances in which the therapist implies that the problem the client is experiencing is a result of him/her not trying hard enough.</td>
</tr>
</tbody>
</table>

### 5) Level 5: communication from the therapist that all behavior is justifiable, reasonable, or meaningful in terms of the present context and normative biological functioning.

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The therapist does not use this level OR throughout the treatment session the therapist implies or states what the client does is not normal.</td>
</tr>
<tr>
<td>1</td>
<td>Throughout the treatment session the therapist attempts this level a few times OR the therapist attempts this level several times and rater believes some instances are correct but a majority of attempts are incorrect.</td>
</tr>
<tr>
<td>2</td>
<td>Throughout the treatment session there are several instances in which the therapist behaves in a way that communicates to the client how the client’s thoughts, feelings, or behaviors make sense, are justifiable, and reasonable in terms of the current context, normative biological functioning OR the therapist attempts this level several times and there are few instances in which the therapist implies or states what the client does is not normal.</td>
</tr>
<tr>
<td>3</td>
<td>Throughout the treatment session there are frequent instances in which the therapist communicates to the client how the client’s thoughts, feelings, or behaviors make sense, are justifiable, and are reasonable in terms of the current context, normative biological functioning, and behaviors are directed towards achieving the client’s goals (ex. “anyone in your position would feel that way”, “it makes sense”).</td>
</tr>
</tbody>
</table>

### 6) Level 6: therapist sees and responds to the strengths and capacity of the client while maintaining a firm empathic understanding of the client as he/she is.

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Throughout the session, there are instances in which the therapist treats the client as fragile and the rater feels that these instances are significant (ex. therapist does not address a problem that may significantly impact the client). The therapist over-apologizes or treats the client as if they are incapable.</td>
</tr>
<tr>
<td>1</td>
<td>The therapist maintains the inherent therapist-client hierarchy in the session and does nothing to break the status quo.</td>
</tr>
</tbody>
</table>
Throughout the session, there are a few instances in which the therapist goes beyond the therapist-client hierarchy and the therapist responds to the client in a genuine manner or in a way one would expect the therapist to talk to a friend/peer/equal (ex. the therapist uses appropriate self-disclosure, humor, natural reactions). The rater feels that these instances are minor.

Generally, throughout the session the therapist responds to the client in a genuine manner or in a way one would expect the therapist to talk to a friend/peer/equal (ex. the therapist uses appropriate self-disclosure, humor, natural reactions). The rater feels that these instances are significant. There are no instances in which the therapist treats the client as fragile. The therapist specifically validates the client as an individual rather than validating just the behavior. The therapist does not treat the client as a person with a disorder.

Client response in session (code based on client behavior):

<table>
<thead>
<tr>
<th>7) How validated did the client appear in session?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

DBT-VLCS Score Sheet

Therapist use of validation levels
Level 1 Score: ____
Level 2 Score: ____
Level 3 Score: ____
Level 4 Score: ____
Level 5 Score: ____
Level 6 Score: ____
Total Validation Score: ____

Client response in session
Question 7: ____