An Examination of Observer-Rated Validation and Invalidation: Association with Therapeutic Constructs, Client Characteristics and Symptom Outcome

Thesis

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## Abstract

Validation (i.e., communication of understanding of another's internal experience) has been theorized to be an important construct and potential mechanism of change in therapy. Its counterpart, invalidation (i.e., communication that valid responses are inaccurate, inappropriate or pathological), is thought to negatively impact treatment course. To date though, no studies have directly examined validation or invalidation in the therapy context. While validation is understood to be related to other therapeutic constructs such as empathy and thought to positively impact the therapeutic alliance (TA), associations among these constructs have yet to be measured. Further, it is unknown how validating and invalidating therapist behaviors may be shaped by preexisting client characteristics such as emotion dysregulation, affect intensity or personality dysfunction. The current investigation was conducted in three graduate training clinics with a sample of 62 client-therapist dyads. One of the aims of the present study was to examine the associations of observer-rated validation and invalidation with empathy and the TA in order to ascertain whether validation and invalidation are related to but separable from more commonly studied therapeutic constructs. Validation was not significantly associated with empathy or the TA and invalidation was negatively associated with these constructs. A secondary aim was to examine whether therapist validation and invalidation were responsive to client presentation. Therapists were more

validating with clients who were less sociable and goal-directed and more invalidating with clients who were more impulsive and had more borderline personality disorder (BPD) features. Our final aim was to examine if validation and invalidation predicted symptom course. Validation interacted with clinic such that more validating behavior by Dialectical Behavior Therapy (DBT) therapists (with clients who were on average, more emotionally dysregulated and depressed and had more borderline features and interpersonal problems than clients in the other clinics) predicted next session symptom change, such that next session depressive symptoms were greater than expected from prior session symptoms. Across clinics, invalidation predicted higher depressive symptoms than expected from prior session symptoms. While the findings were mixed, this study has important implications for therapist validating and invalidating behavior on symptom outcomes. Replication in a DBT sample specifically could help clarify findings from the current study.

# Dedication

To my Dad, for his tenacious encouragement to follow my ambitions and for his emphasis on the innate value of learning.

To my partner and my best friend, Luke, for constantly being there and putting up with the life of a graduate student.

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# **Fields of Study**

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# **Table of Contents**

Abstractii
Dedicationiv
Acknowledgementsv
Vitavi
List of Tablesx
List of Figuresxi
Chapters
1. Introduction1
1.1 What are Validation and Invalidation?2
1.2 Measurement of Validation and Invalidation
1.3 Validation and Invalidation in Relation to other Therapist Behaviors5
1.4 Client Characteristics and Therapist Behavior7
1.5 Validating and Invalidating Responses and the Impact on Affect8
1.6 Impact of Validation and Invalidation in Partners and Families11
1.7 Therapist Behavior and Outcome14
1.8 Current Study16
1.9 Hypotheses17
2. Methods

2.1 Participants18		
2.2 Measures		
2.3 Study Procedure		
3. Results		
3.1 Data Analytic Plan and Preparation		
3.2 Descriptive Statistics of Coding Variables		
3.3 Client, Therapist, Clinic and Study Time-point Differences27		
3.4 Hypothesis Testing		
3.5 Hypothesis 1: Concurrent and Discriminant Validity		
3.6 Hypothesis 2: Client Characteristics as Predictors of Validation and		
Invalidation		
3.7 Hypothesis 3: Disaggregation of Between-client and Within-client Variation in		
Observer-rated Validation and Invalidation on Symptom Outcomes45		
4. Discussion		
4.1 Study Limitations		
4.2 Conclusions		
References71		
Appendix A: Tables		
Appendix B: Figures90		
Appendix C: Study Forms95		

# List of Tables

Table 1. Descriptive Statistics of Client Characteristics at Study Baseline	31
Table 2. Descriptive Statistics of Self-report and Coding Data	32
Table 3. Combined Model with Interaction Effects for Concurrent and	
Discriminant Validity of Observer-rated Validation	33
Table 4. Combined Model of Concurrent Validity of Observer-rated	
Invalidation	34
Table 5. Client Characteristics as Predictors of Observer-rated Validation:	
Subscales	35
Table 6. Client Characteristics as Predictors of Observer-rated Validation:	
Main Effects and Interactions	36
Table 7. Means and SDs of Clients' Raw Observer-rated Process Measure and	
Client-reported Symptom Scores at Study Time-points	37
Table 8. Descriptive Statistics: Means and SDs of the Observer-rated	
Within- and Between-client Process Scores	38
Table 9. Combined Models of Within-client Validation and Invalidation as	
Predictors of Depressive Symptom Change	39

# List of Figures

Figure 1. BDI-II Scores across Study Time-points by Clinic	91
Figure 2. BAI Scores across Study Time-points by Clinic	92
Figure 3. Interaction of Clinic with Within-client Validation Scores Predicting	
BDI-II Scores	93
Figure 4. Combined Model: Interaction of Clinic with Within-client Validation	
Scores Predicting BDI-II Scores	94

#### **Chapter 1: Introduction**

Validation (i.e., communication of understanding through the accurate reflection of the other's internal experience) and its counterpart, invalidation (i.e., communication that valid responses are inaccurate, inappropriate or pathological), are theorized to be important constructs in therapy (Lynch, Chapman, Rosenthal, Kuo & Linehan, 2006; Linehan, 1997; 1993). Validation and invalidation have received significant theoretical attention, multiple measures have been developed, experimental manipulation studies have been conducted, and dyadic interaction, primarily focused on parent-child and romantic partner dyads, analyses have been completed. Although validation and invalidation have been studied and reliably measured within parent-child and partner dyads, to date, these constructs have not been empirically studied in the context for which they were originally conceived, the therapy context. A further question remains of whether a measure used to assess validation and invalidation in non-therapeutic dyadic interactions could be adapted to reliably assess validation and invalidation in therapy sessions. Once appropriately measured, we would expect validation to be associated with, although distinct from, other therapeutic constructs such as the therapeutic alliance (TA) and empathy but unrelated to demographic therapist characteristics such as gender and experience (e.g., years or clinical hours). Following reliable measurement, we can examine which client characteristics predict validating and invalidating therapist behavior to identify whether certain clients are more or less likely to engender and receive these presumably useful or problematic responses from therapists. Additionally, it is important to know whether validating and invalidating therapist behaviors are related to treatment outcome variables, namely symptom reduction.

#### What are Validation and Invalidation?

Validation is conceptualized as the accurate reflection of someone's internal experiences, including thoughts, feelings and behaviors. It communicates understanding of the individual without fragilizing; instead the individual is treated as capable and competent (Linehan, 1993, 1997). As it is defined, validation is distinct from warmth, positive affect, general problem-solving, or casual conversation but it does include genuine behavior by the therapist (breaking down the therapist-client barrier whereby the therapist is communicating with or reacting to the client as she would with a loved one; Fruzzetti, 2014). Importantly, validation is not necessarily intended to change the present emotional experience but rather is utilized to facilitate acceptance and experiencing of it (Shenk & Fruzzetti, 2011). While the primary intention of validation is not to change the emotional experience, it is possible and even likely that validation could impact emotions and facilitate change.

While validation communicates understanding of the other person, invalidation communicates that *valid* responses are inaccurate, pathological, or inappropriate (Linehan, 1993). An invalidating response may be, "That's a strange reaction. I don't understand why that would make you feel that way." Invalidating behavior can also take the form of not actively listening or communicating, in some way, that you are not interested in or attentive to the person's experience. As noted by Fruzzetti (2014), invalidation is not simply disagreement or the expression of negative affect; rather, it functions to delegitimize another person's internal experience. Further, it is believed that the rejection or criticism of one's valid responses inhibits future emotional expression and heightens emotional arousal, both of which may serve to maintain psychopathology (Fruzzetti & Iverson, 2004). Both validation and invalidation need not be explicit verbal responses but can take the form of functional behavior. In the case of validation, this could mean taking an individual seriously (Linehan, 1997) and treating the other individual as an equal while invalidation may take the form of being inattentive, dismissive, refusing to take the individual seriously, or being patronizing or condescending (Fruzzetti, 2014).

#### **Measurement of Validation and Invalidation**

To date, validation and invalidation have been measured in parent-child and partner dyads. These constructs have been measured by independent observer report using the Validating and Invalidating Behavior Coding Scale Version 3.6 (VIBCS 3.6; Fruzzetti, 2014), which is guided by the Validating and Invalidating Behavior Coding Scale (VIBCS) Manual. The VIBCS provides brief examples of different levels of validation and invalidation and measures validation and invalidation on 7-point-Likert scales with "1" indicating lack of that construct and "7" indicating the highest level of that construct. To our knowledge, the VIBCS is the only existing measure of validation *and* invalidation and it relies on observer ratings. In a subset of ratings of parent-child interactions, good (ICC = .74; Shenk & Fruzzetti, 2011) to excellent interrater reliability

(ICC = .86; Shenk & Fruzzetti, 2014) has been found, however, there are no available estimates of test-retest reliability, or associations with other similar measures besides relationship satisfaction and interpartner aggression. Further, the VIBCS has not been adapted for the therapy context specifically.

Carson-Wong and Rizvi (2014) recently developed an observer-report scale informed by the VIBCS, the Dialectical Behavior Therapy-Validation Level Coding Scale (DBT-VLCS), to measure validation strategies in the therapy context. Using the DBT-VLCS, observers provide ratings (0 – 3) for each level of validation (i.e., with levels indicating different subtypes of validation). Observers were trained and 20 tapes of therapist-client dyads from a DBT clinic were then coded to assess interrater reliability. In a team of eight raters, good to excellent interrater reliability was achieved (ICC = .62 -.91) and in a team of five raters, fair to excellent interrater reliability was achieved (ICC = .53 - .90). There are no available estimates, however, of the associations of the DBT-VLCS with other similar measures. Further, although this scale provides descriptors of therapist behavior for different levels of validation, it does not include any assessment of invalidation. Although it is possible that invalidation is infrequent or unimportant in the therapy context, it is important to also develop and test a scale that includes invalidation by therapists to understand its therapeutic impact.

Validation and invalidation are theoretically part of therapist behavior and can be perceived and assessed by the therapist, client, and independent observers. As discussed by Leitner and Guthrie (2007), therapist behavior can appear to be ambiguous as it is subjectively experienced by the client and the therapist, but objective observation could aid in disambiguating such therapist behavior as validation and invalidation. Given differences in subjective experience, it is important to examine how observer reports of validation and invalidation relate to client and therapist reports of these constructs.

Cheavens and Stigen (2011) developed a ten-item self-report measure of validation and invalidation so that these constructs could be assessed in experimental manipulations as a manipulation check. A factor analysis revealed a two-factor structure such that validation and invalidation items loaded onto different factors. (A one-factor structure yielded a poor fit index indicating that this scale was more appropriately scored as measuring two separable constructs). Both the validation ( $\alpha = .91$ ) and invalidation subscales ( $\alpha = .86$ ) have high internal consistency (Cheavens, Edwards & Benitez, 2015). Although this measure was developed with the hope that it would be flexible enough to also be used in clinical samples, to date validation and invalidation have not been assessed with self-report in the therapy context. In order to understand how observer ratings of validation and invalidation relate to ratings by other reporters in therapy, including the client and the therapist, it is important to assess the constructs with multiple reporters concurrently. Further, although a scale was previously developed to measure validation in therapy, it is important to garner observer ratings of both validation and invalidation in order to assess the relation of these measures with client and therapist ratings.

#### Validation and Invalidation in Relation to other Therapist Behaviors

Research on how validation and invalidation are similar to and separable from other therapist behaviors has been limited. Validation may be one way to strengthen the TA. In a treatment study for complex trauma, validation was utilized as a technique that helped build the TA before engaging in pursuit of treatment goals and utilization of cognitive behavioral techniques (Fasulo, Ball, Jurkovic & Miller, 2015). In a study of therapist behavior and client symptom outcomes, Najavits and Strupp (1994) found that the therapists of clients with better outcomes were rated as more affirming and understanding in session by both the therapist and the client than were therapists of clients with worse outcomes. Although validation was not directly measured in this study, understanding is a key component of validation and this finding alludes to a possible association between validation and the TA.

Similar to validation, empathy, too, is a therapeutic construct in which the client's "internal frame of reference" is recognized. While validating behavior can often be empathic, validation is not simply empathy. Linehan (1997) distinguishes validation from empathy in noting that empathic behavior by the therapist may not always communicate understanding of the internal experience, response, or behavior of an individual. As described by Linehan, empathy is the perception of the internal experience while validation extends beyond this recognition and involves analysis of the validity of the experience given one's history and situation. Given the theoretical distinctions, it is important to examine the extent to which validation and invalidation are related to and distinct from therapist behaviors such as the TA and empathy; if validation is not distinct from the TA and empathy, it would not be necessary to examine it separately in the therapy context.

6

#### **Client Characteristics and Therapist Behavior**

It is important to acknowledge that clients come to treatment varying on a number of characteristics (e.g., emotion regulation skills, personality dysfunction, interpersonal problems). The therapist does not exist in a static environment. In working with the client and delivering the treatment, the therapist may react to the client's presentation. For example, in a study of the TA and its association with symptom change, the alliance, as rated by the patient, varied considerably and was stronger with individuals with personality dysfunction (Falkenstrom, Granstrom & Holmqvist, 2013). It is theorized that validation is especially important for those with emotion regulation difficulties and that invalidation could negatively impact these individuals in particular (Fruzzetti & Worrall, 2010; Fruzzetti, Shenk & Hoffman 2005; Linehan 1997, 1993). Fruzzetti and Worrall suggest that those who are experiencing heightened emotional arousal may in turn inaccurately express their emotions which would often be met with misunderstanding and invalidating responses.

In experimental manipulations of validating and invalidating responses, those with higher levels of interpersonal sensitivity, interpersonal aggression, borderline symptoms, difficulties regulating emotions and affect intensity were more sensitive to invalidation (Cheavens, Edwards & Benitez, 2015). Similarly, therapist behavior could fluctuate as a function of the same client characteristics that make individuals more or less sensitive to validation and invalidation. While much of this research has been conducted with partners and in parent-child dyads, we predict that a client's level of

emotion dysregulation would affect the therapist's in-session behavior, resulting in more invalidation by the therapist.

#### Validating and Invalidating Responses and the Impact on Affect

Although validation and invalidation have not yet been studied in the therapy context, they have been studied experimentally in the laboratory, whereby invalidation has been found to produce negative outcomes in terms of affect and arousal and validation has been found to protect against these negative outcomes. In a study of undergraduate women, Shenk and Fruzzetti (2011) found that individuals receiving invalidating responses to an emotional disclosure following difficult arithmetic tasks experienced significant increases in negative affect (NA), skin conductance, and heart rate. Participants who received validating responses subsequent to the task did not experience significant increases in NA and had significant decreases in heart rate across time. Although participants in the validating condition experienced increases in skin conductance across time, participants in the invalidating condition had steeper increases in skin conductance. Collectively, these findings indicate that invalidation can have a short-term adverse impact in the form of greater negative emotional reactivity and arousal while validation can be beneficial, specifically in terms of reduced heart rate and less dramatic increases in skin conductance.

Stigen and Cheavens (2011) examined the effect of validation and invalidation on affect and cognitive flexibility. Although there was no differential outcome in cognitive flexibility (i.e., on an emotion-word card sorting task) following validating or invalidating responses to disclosure of an anger-provoking personal experience, conditions did differ in positive affect (PA) changes. Participants who were invalidated after disclosing an anger-provoking personal event experienced significantly larger decreases in PA than participants who were validated. These findings suggest that invalidating responses can reduce PA and perhaps have downstream consequences of restricting approach behavior. Similarly, Benitez and Cheavens (2014) examined the effect of validation and invalidation on affect and social problem-solving. Participants receiving invalidating responses subsequent to an anger-provoking story recall experienced greater decreases in PA and greater delay in the return of their mood to emotional baseline than those receiving validating responses. There were no differences in objective problem-solving between the two conditions; however, those who received invalidating responses self-reported that their problem-solving was less effective and less effortful. Invalidation not only reduces PA, but again it may also restrict approach behavior by making individuals less confident or engaged in their behavior. In both studies, there were no significant differences in NA between conditions receiving invalidating or validating responses subsequent to an anger-provoking story recall.

While these studies were conducted with samples of unselected undergraduate students, other studies have examined the impact of invalidation in samples that are theorized to be particularly vulnerable to invalidation (i.e., with high emotion regulation difficulties or high borderline symptoms). In an experimental manipulation of validation and invalidation after a sad mood induction in undergraduate students high or low on emotion regulation difficulties, Herr, Jones, Cohn and Weber (2015) examined the role of validation and invalidation in predicting aggression, using a laboratory behavioral aggression measure. The authors recruited groups high and low in difficulties regulating emotions and randomized participants to be either validated or invalidated following a sad-mood induction. They found a difficulties in regulating emotion by validation/invalidation interaction such that participants with high levels of emotion regulation difficulties demonstrated less aggressive behavior following validation compared to invalidation. For those low in emotion regulation difficulties, there were no between-condition differences in aggressive behavior. Further, there was a main effect indicating that those who were invalidated were more aggressive than those who were validated. The authors concluded that validation of emotional experiences protect against reactive aggressive behavior among those with greater difficulties regulating emotions.

In an experimental study of women with high levels of borderline personality disorder (BPD) features and healthy control participants, Woodberry, Gallo, and Nock (2008) examined whether invalidation following a frustrating anagram task resulted in increases in physiological arousal. The authors tested this with a 2 by 2 experimental design such that women with high BPD features and control participants were randomized to either a validating or invalidating condition. Participants with high BPD features reported lower levels of PA and less comfort with their emotions following invalidation compared to following validation and compared to control participants. They did not, however, self-report higher levels of arousal nor was there physiological evidence (i.e., skin conductance) for higher levels of arousal.

Collectively, these findings begin to demonstrate the consequence of invalidating behavior as evidenced by increased NA, arousal, and aggressive behavior, and decreased

PA and self-reported comfort with emotions as well as the benefit of validating behavior in protecting against increased arousal and aggressive behavior. Invalidating responses can lead to detrimental outcomes while validating responses can protect against these outcomes. Although these studies were conducted in the lab where experimenters were responding with validation or invalidation depending on the participant's assignment to study condition, validation and invalidation can and do occur naturalistically. Given these findings, we may extrapolate beyond this context and assume that in naturalistic contexts too, validating behavior can protect against adverse outcomes while invalidation can contribute to these adverse outcomes.

#### **Impact of Validation and Invalidation in Partners and Families.**

Two such contexts where validation and invalidation naturally occur is in partner and parent-adolescent interactions. Validation in partner interactions is thought to foster intimacy and closeness (Fruzzetti & Iverson, 2004; Fruzzetti & Jacobson, 1990). In contrast, hostile conflict within partners has been associated with symptoms of individual psychopathology (Fruzzetti & Iverson, 2004). For example, Thorp (2002) found that among a sample of psychiatric outpatients, observer-rated partner validation during prompted discussions predicted lower self-reported psychological symptoms 6 weeks later.

In mother-child interactions, invalidating behavior by mothers has been associated with a number of negative outcomes including lower-levels of adolescent self-regulation, higher levels of adolescent emotion dysregulation, internalizing and externalizing behaviors, and lower adolescent relationship satisfaction. Validating behavior, however, has been found to be associated with more positive outcomes such as lower levels of adolescent emotion dysregulation.

Maternal invalidating behavior has been associated with lower levels of adolescent regulation as measured by psychophysiological indices. For example, in a study of a conflict discussion in mother-adolescent dyads, maternal invalidation of the adolescent coupled with highly aversive adolescent behavior (i.e., high levels of coercive and attacking utterances) was associated with low adolescent resting respiratory sinus arrhythmia, indicating low self-regulation (Crowell et al., 2013). This study begins to demonstrate the potential detrimental impact of parental invalidation on adolescent regulation.

Adolescents experiencing maternal invalidation not only suffer from lower levels of self-regulation but also experience higher levels of emotion dysregulation as measured by observer and self-report (Buckholdt, Parra & Jobe-Shields, 2014; Crowell et al., 2013; Yap, Allen & Ladoucer, 2008). For example, in a study examining mother-child interactions, adolescents whose mothers responded in a more invalidating manner demonstrated more emotionally dysregulated behaviors during the interaction, as rated by observers, and concurrently, self-reported greater use of more maladaptive emotion regulation strategies (Yap, Allen & Ladoucer, 2008). In dyads where the mothers demonstrated more invalidating behavior to adolescent PA and in dyads where the mother self-reported invalidating her daughter's PA, the adolescents reported higher depressive symptoms. These findings illustrate the positive associations between maternal invalidating behavior of child PA and adolescent emotion dysregulation and psychopathology. While maternal invalidating behavior predicted adolescent depressive symptoms, it is unclear to what extent these findings are transactional with the mother responding to her child's emotion dysregulation with invalidation and in turn, the adolescent responding to this invalidation with further dysregulated behavior.

One such study of parent-child interactions noted the possibility of a transactional relation between maternal invalidating behavior and adolescent externalizing behavior and emotion dysregulation. In this study, Shenk and Fruzzetti (2014) found that invalidating behaviors by the mother in a social support and problem solving task were significantly associated with both externalizing problem behaviors and lower relationship satisfaction by the child. Validating behaviors by the mother, however, were significantly associated with lower levels of self-reported child emotion dysregulation and higher child relationship satisfaction. While correlational, these findings indicate that validating and invalidating behaviors may have different associations with emotion dysregulation such that validation is associated with lower levels of dysregulation while invalidation is associated with higher levels. Importantly, the authors indicated that these relations may be transactional or reciprocally maintained. For example, more emotionally dysregulated and externalizing adolescents may elicit more invalidating responses by their parents, which may further contribute to higher levels of emotion dysregulation and externalizing behavior and further elicit invalidating responses.

A recent study by Dixon-Gordon, Whalen, Scott, Cummins and Stepp (2015), examined the effect of maternal interpersonal emotion regulation and negative affect on BPD symptoms in adolescent girls. A mother-daughter conflict discussion was coded by raters for a number of variables including PA, NA, problem solving, and support/validation. Adolescent NA during the conflict discussion was significantly associated with higher BPD severity only in the context of high maternal problem solving and low maternal support/validation. This association remained even when controlling for adolescent depression and anxiety severity. These findings indicate that validation can serve as a protective factor against emotion dysregulation, specifically BPD severity, when NA is experienced in the context of high maternal problem solving.

Given the associations between invalidation with emotion dysregulation, depressive symptoms, externalizing and internalizing behaviors and relationship satisfaction in the familial environment, we expect that within the context of therapy, invalidation will have similar associations with a number of outcomes, particularly symptoms. Further, validation could potentially contribute to symptom reduction.

#### **Therapist Behavior and Outcome**

Previous research demonstrates that the TA is associated with symptom outcomes (Flückiger, Del Re, Wampold, Symonds, & Horvath, 2012; Horvath, Del Re, Flückiger, & Symonds, 2011) and predicts subsequent symptom change, albeit weakly, and the TA is predicted by prior symptom change (Falkenstrom, Granstrom & Holmqvist, 2013). Similarly, early-session therapist empathy both positively predicts client reports of the TA and heightened emotional processing (Malin & Pos, 2015) as well as lower depressive symptoms, interpersonal problems and distress (Watson, Steckley & McMullen, 2013). However, research on validation and invalidation within the context of therapy has been more limited. While theory suggests that validation is a mechanism of change in therapeutic outcome and enhances engagement in therapy (Lynch et al., 2006), there is no published research on whether or not validation or invalidation predicts symptom change in treatment.

In their theoretical summary of validation in treatment, Lynch and colleagues (2006) introduce a number of paths through which validation might lead to change in treatment. The authors theorize that therapist validation might serve to enhance the stability of one's self view, which is thought to help decrease emotional instability. Further, the authors posit that validation can serve to reduce emotional arousal and in turn, promote learning. Similarly, they suggest that validation can facilitate client engagement both in the therapy session and with one's emotions to promote problemsolving. Lastly, the authors suggest that the experience of validation facilitates client motivation to continue or at least stay in treatment, to remain in an environment in which she feels understood. In a study of DBT versus Comprehensive Validation Therapy (focused delivery of validation strategies in DBT) plus 12-step treatment for opioiddependent women with BPD, there was a significant difference in drop-out rate between study conditions such that there were no treatment drop-outs in the Comprehensive Validation Therapy condition while there was a 36% drop-out rate in the DBT condition (Linehan et al., 2002). This study indicates that validation strategies can improve retention rates and may in turn, enhance engagement in treatment.

Given the underlying theory that invalidation contributes to emotion dysregulation and that validation can foster progress in treatment, it is important to examine these constructs within the context of therapy to determine whether they do predict anxiety and depressive symptom outcomes. Extrapolating from theory and the evidence from observational and experimental paradigms, we may deduce that short-term affective changes following validating and invalidating responses in the lab could translate into short-term symptom change within the context of therapy but this has not yet been tested empirically.

# **Current Study**

In order to examine validation and invalidation, trained undergraduate coders rated therapy recordings collected across a range of early therapy sessions (sessions 3 – 7). As many as four therapy recordings were available for coding for any given client. When fewer than four tapes were collected, it was due to missing data or client drop-out from treatment and the study. Coders were trained using a revised version of the Validating and Invalidating Behavior Coding Scale manual (Fruzzetti, 2014; see Appendix C). In the current study, we assessed the relations among observer-ratings of therapist validation and invalidation with client and therapist ratings of these constructs, client ratings of empathy, and client and therapist ratings of the TA. Self-report data were collected at study baseline (prior to first time-point of study participation). Additionally, self-report measures were collected from both therapist and client after each therapy session examined.

Using a repeated measures design, we examined the relations among observerrated therapist validation and invalidation (here forward the terms validation and invalidation refer to observer ratings, unless otherwise noted) with affect intensity, difficulties in emotion regulation and personality dysfunction. Last, we examined how validation and invalidation predicted early treatment symptom change, while controlling for prior session symptoms.

# Hypotheses

# Hypothesis 1.

1A. Observer ratings of validation and invalidation will not be significantly associated with therapist variables including therapist gender and experience.

1B. Observer ratings of validation and invalidation will be positively associated with therapist and client ratings of these same constructs.

1C. Observer ratings will be more strongly associated with client than therapist ratings of validation and invalidation.

1D. Observer ratings of validation will be positively associated with ratings of the TA and empathy while observer ratings of invalidation will be negatively associated with these constructs.

#### Hypothesis 2.

Interpersonal problems, affect intensity, difficulties in emotion regulation and borderline symptoms will positively predict invalidation and negatively predict validation.

#### Hypothesis 3

Validation, as captured by within-client variability, will predict lower symptoms at the next session than expected, while within-client invalidation will predict higher symptoms at the next session than expected.

# **Chapter 2: Methods**

# **Participants**

The sample (clients: n = 62; therapists: n = 26) was recruited from three graduate training clinics at the Ohio State University including the Psychological Services Center (PSC; clients: n = 27, therapists: n = 13), the Dialectical Behavior Therapy Program (DBT; clients: n = 22, therapists: n = 7) and the Anxiety and Stress Disorders Clinic (ASDC; clients: n = 13, therapists = 7). With the exception of one therapist, all therapists saw clients in only one of the graduate training clinics. One therapist saw clients in both the PSC and DBT clinic.

Clients were an average of 27.30 years old (SD = 10.12) and were predominantly female (79.37%), Caucasian (73.02%), and single (53.97%). On average, therapists were 26.67 years old (SD = 2.57) and in their second practicum (SD = 1.08) in the OSU Clinical Psychology training program at the time of seeing their client. Therapists were predominantly female (73.08%) and Caucasian (88.46%). Inclusion criterion in this study was availability of at least one video recording of a therapy session (session 3 – 7) for coding purposes.

#### Measures

*Affect Intensity Measure* (AIM; Larsen, 1984). The AIM is a 40-item measure of the intensity of a person's positive and negative affectivity. Participants indicate how

strongly they agree with statements demonstrating reactivity and intensity to both positive and negative stimuli, such as "When I receive an award I become overjoyed." The AIM has been shown to have excellent internal reliability ( $\alpha = .90 - 94$ ) and good construct validity (Larsen, Diener, & Emmons, 1986). This measure was collected at study baseline. Cronbach's alpha in this study sample was .79.

*Beck Anxiety Inventory* (BAI; Beck, Epstein, Brown, & Steer, 1988). The BAI is a 21-item self-report scale of anxiety symptoms. Items include physiological symptoms such as dizziness and difficulty breathing, as well as emotional content such as fear of dying and inability to relax, rated on a scale from 0 - 3 with higher scores indicating higher levels of self-reported anxiety. The BAI has been shown to have high internal consistency ( $\alpha = .92$ ) and good test-retest reliability (r = .75) over a period of one week. This measure was collected at each study time-point. Cronbach's alphas in this study sample ranged from .86 - .92.

*Beck Depression Inventory-*  $2^{nd}$  *Edition* (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II is a 21-item self-report instrument used to assess the severity of depression symptoms. Respondents are asked to describe the way they have been feeling during the past week by rating each item (e.g., sadness, pessimism, loss of pleasure) on a scale from 0 - 3. Higher scores indicate higher levels of self-reported depressive symptoms. The BDI-II has been shown to have high internal consistency ( $\alpha = .90 - .91$ ) with good to excellent test-retest reliability (r = .73 - .96) with mean reapplication interval of 2 weeks (Wang & Gorenstein, 2013; Beck, Steer, Ball & Raneiri, 1996). This measure was collected at each study time-point. Cronbach's alphas in this study sample ranged from .93 - .95.

# *California Psychotherapy Alliance Scales* (CALPAS-C and CALPAS-T; Gaston & Marmar, 1994; 1991). The CALPAS-C and CALPAS-T scales are both 24-item self-report questionnaires that assess the strength of the client-therapist relationship. Each item is rated on a 0 - 6 Likert scale. There are four subscales: 1) client capacity to work purposefully, 2) affective bond with therapist, 3) therapist involvement and understanding, and 4) agreement between client and therapist on goals of treatment. The CALPAS-C has been shown to have good internal consistency ( $\alpha = .84$ ) and good construct validity (Gaston, 1991). In earlier versions, the CALPAS-T also demonstrated good internal consistency ( $\alpha = .82 - .89$ ; Marmar, Horowitz, Weidd & Marziali, 1986). These measures were collected from therapist and client at each study time-point. In this study sample, cronbach's alphas ranged from .86 - .92 for the CALPAS-C and from .90 - .94 for the CALPAS-T.

*Difficulties in Emotion Regulation Scale* (DERS; Gratz & Roemer, 2004) The DERS is a 36-item self-report questionnaire that assesses emotion regulation in six strategy domains including non-acceptance of emotional responses, difficulties engaging in goal directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. Participants are asked to rate how often each of the statements applies to them on a 5-point Likert scale. Both a total score and the six subscale scores are then computed. The authors reported that the total scale demonstrates excellent internal consistency ( $\alpha = .93$ ) and

good construct validity and that all six subscales demonstrate good internal consistency ( $\alpha \ge .80$ ). This measure was collected at study baseline. Cronbach's alpha in this study sample was .88.

*Inventory of Interpersonal Problems* (IIP; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988) The IIP is a 47-item self-report questionnaire designed to assess a person's interpersonal problems. The IIP was designed to characterize an individual's specific patterns of behavior when facing interpersonal problems. Both a total score and 5 subscale scores are computed. Three subscales, interpersonal sensitivity, interpersonal ambivalence, and aggression, were designed to distinguish those with any type of personality disorder or dysfunction from those without. The two remaining subscales, need for social approval and lack of sociability, were designed to capture an anxious or internalizing personality dysfunction (Cluster C). The five subscales of the IIP have been found to have high internal consistency ( $\alpha \ge .80$ ; Pilkonis, Kim, Proietti & Barkham, 1996). This measure was collected at study baseline. Cronbach's alpha in this study sample was .92.

*MAPS Validation and Invalidation Manual* (Revised from Fruzzetti, 2014; Appendix C). We revised the Validating and Invalidating Coding Scale Manual (Fruzzetti, 2014) based on feedback from a project consultant (Compton, 2011). Changes included more detailed descriptions and examples of the levels of validation and invalidation. After each ten minute segment of therapy recording, overall validation and invalidation were rated on a 7-point Likert scale with "1" indicating absence of that construct and "7" indicating the highest level of that construct. These segment ratings were then averaged to create a validation and invalidation rating for the entirety of the recording. If the last segment was less than five minutes, it was excluded from the average rating. Coders achieved good to excellent inter-rater reliability with training recording data (Validation: ICC = .83; Invalidation: ICC = .78). Coders also rated audio and video quality.

#### Personality Assessment Inventory- Borderline Symptoms Scale (PAI-BOR;

Morey, 1991) The PAI-BOR is the 24-item borderline (BOR) scale from the Personality Assessment Inventory, an extensive 344-question self-report inventory that measures psychological functioning and personality. The PAI-BOR scale provides useful information on borderline pathology designed to measure the specific symptoms of borderline personality disorder. The PAI-BOR has been found to have high internal consistency in non-clinical young adults ( $\alpha = .84$ ; Trull, 1995) as well as in clinical, college and census samples ( $\alpha = .86 - .91$ ; Morey, 1991). This measure was collected at study baseline. Cronbach's alpha in this study sample was .73.

*Reynolds Empathy Scale* (RES; Reynolds, 2000). The Reynolds Empathy Scale is a 12-item, Likert-scaled, self-report measure of client's perceptions of the empathic behaviors and attitudes of a helping professional. It is meant to be completed following a verbal interaction with a helping professional. The RES has been shown to be valid (Reynolds, 2000) and possess adequate internal consistency ( $\alpha = 0.75$ ; Lauder, Reynolds, Smith, & Sharkey, 2002). Cronbach's alpha in this study sample ranged from .73 - .81.

Self-Reported Validation Invalidation Scale [SRVIS (Appendix C); Stigen & Cheavens, 2011 Appendix C] The SRVIS is a ten-item measure with each item rated on a

four-point Likert-type scale. Separate versions of the measure were given to both therapists (SRVIS-T) and clients (SRVIS-C) after each study therapy session. Therapists responded to items based on perceptions of their own behavior in session. Clients responded to items based on their experience of validation or invalidation by the therapist. The scale was based on Fruzzetti's (1997) Validating and Invalidating Behavior Coding Scale. Across therapy sessions, the therapist (Validation:  $\alpha = .64$ ; Invalidation:  $\alpha$ = .61) and client (Validation:  $\alpha = .73$ ; Invalidation:  $\alpha = .61$ ) versions of the SRVIS had fair to good internal reliability. This measure was collected after each study time-point.

# **Study Procedure**

For this study, we used data collected longitudinally to examine relations among therapist behaviors, client characteristics, and client symptoms. These data were collected as part of a prior study in which clients and therapists provided baseline data in addition to completing self-report questionnaires at four study time-points, ranging across sessions 3 - 7 of therapy. Self-report questionnaires collected at study baseline included the AIM, DERS, IIP and PAI-BOR. Self-report questionnaires collected at the study sessions included the BAI, BDI, CALPAS (client and therapist), RES, and SRVIS (client and therapist). We coded available video recordings from the study time-points (n = 206; sessions 3 - 7) for validation and invalidation. Approval was received from the Institutional Review Board and consent was obtained from both client and therapist. They were informed that therapy sessions would be recorded and coded for research purposes.

The video recordings were coded by a team of five undergraduate students trained by Dr. Jennifer Cheavens and Erin Altenburger using the MAPS Validation and Invalidation Manual. Training was conducted over a period of three months until coders were reliable on the major constructs of interest (ratings of validation and invalidation). Prior to the rating of therapy recordings, coders read and discussed articles selected by the study investigators describing the constructs of validation and invalidation. The undergraduate coders then watched and rated 19 therapy tapes (> 20 hours) of therapist-client dyads not in the current study (Appendix C).

Reliabilities for training tapes were assessed using intraclass correlation coefficients (ICCs). Coders were found to have good reliability on invalidation (ICC = .78) and excellent reliability on validation (ICC = .83) for the 19 training tapes. Once reliable, the coders began rating video recordings of therapy sessions in the current project. Coding commenced in September 2014 and continued through April 2015.

To prevent rater drift, weekly meetings were held to discuss difficult ratings and review tapes. Every three to four weeks, a therapy recording independent from the current project was rated and reviewed by all coders and the study investigator. Nine rater drift tapes were rated over the course of the project. In addition to rating the constructs of interest for all tapes in the current project, coders also rated therapist and client video and audio quality to assess tape clarity.

Each of the 206 therapy tapes available for coding was randomized to four of the five coders using an online randomization generator (Urbaniak & Plous, 2015). One of the coders could not complete all of the therapy tapes randomized to her. These were re-randomized to the remaining coders who had not already rated the tapes. Coders rated
anywhere between 136 - 174 tapes. No recording was rated by an individual coder more than once. There were a total of 824 coder ratings completed.

As a first step, I examined the frequencies for recording clarity (therapist and client audio and video quality) of the coding data. Six of the 824 coder ratings were excluded from future analysis as therapist or client audio quality, the ability to understand the therapist or client, was lower than 75% for the entirety of the tape. One client's therapy recording and all four of the coder ratings for that tape were also excluded from analyses as her therapy sessions occurred an usually long time period after the first session. Her first study time-point (session 3) did not occur until 90 days after the start of therapy. After excluding these ratings, 814 ratings of 205 therapy sessions were used for analyses.

# **Chapter 3: Results**

## **Data Analytic Plan and Preparation**

# **Reliability Estimates**

To determine reliability of the coder ratings, intraclass correlation coefficients were calculated for all variables of interest including ratings of validation and invalidation. Ratings of validation were found to have adequate to good reliability (ICC = .67) while ratings of invalidation had poor reliability (ICC = .42).

Reliability of invalidation ratings was examined in a number of ways to determine if coder agreement could be improved. For 62.78% percent of the 814 ratings, invalidation was rated as absent (value of 1). Because of this, we created a dichotomous invalidation variable (i.e., presence versus absence of invalidation in the entirety of the tape). When examined this way, reliability was slightly higher but still poor (ICC = .48). Reliabilities also were estimated without each rater to determine if any given rater provided ratings that were less consistent with the rest of the team. Reliability estimates with the removal of each rater were still poor for invalidation (ICCs = .29 - .40) and the dichotomous variable (ICCs = .27 - .45). For any given triplet of raters, reliability estimates were also still poor for invalidation (ICCs = .15 - .39) and the dichotomous variable (ICCs = .14 - .38). Given that the reliability of the invalidation presence/absence variable was no better than that of the invalidation variable and the original hypotheses involve invalidation as a continuous construct, invalidation was used in subsequent analyses. Analyses of invalidation should be interpreted with caution because reliability was poor. In all hypothesis testing, scores were averaged across coder ratings to create average scores for validation and invalidation for each session. Here forward, these averages are used in analysis and scores are referred to as (observer-rated) validation and invalidation.

### **Descriptive Statistics of Coding Variables**

The distribution of validation ratings was normal (M = 3.39, SD = .56) while the distribution of invalidation ratings was positively skewed (M = 1.16, SD = .18). Further, while the possible range of both validation and invalidation scores was from 1 - 7, there was a restricted range for both when averaged across raters (Validation: 2.40 - 5.22; Invalidation: 1.00 - 2.13). Invalidation ratings were particularly restricted while validation ratings were only truncated at the extremes of the scale. However, it is important to note that these are average ratings, both across segments of the session and across coders. When examining the range for individual coders' ratings, validation ranged from 1 - 7 within therapy session segments and from 1 - 6.33 for the mean validation rating across these segments. Meanwhile, invalidation rating across these segments and from 1 - 3.5 for the mean invalidation rating across these segments.

### **Client, Therapist, Clinic and Study Time-point Differences**

As a first step, we examined whether the random effects associated with client, therapist, and clinic (DBT versus non-DBT clinic) in unconditional models predicted

validation or invalidation. We took into account the nesting of client within therapist and therapist within clinic. In the model of validation, there were two levels with client nested within therapist (p < .01) and therapist (p = .03) as significant random effects. In the model of invalidation, there was one level with only the client (p = .03) as a significant random effect. The clinic random effect was not significant in either model (ps = .20). These models were fit with an unstructured covariance structure and the Kenward Rogers degrees of freedom and maximum likelihood estimation methods. Autoregressive, heterogeneous autoregressive, compound symmetry, unstructured and toeplitz covariance structures were examined and an unstructured covariance structure was found to have the best fit.

Unless otherwise specified, all subsequent models with validation as an outcome included client and therapist as random effects and all models with invalidation as an outcome included client as a random effect. Further, all continuous variables were mean centered to ease interpretability of results.

In order to examine whether time (days from the start of treatment) accounted for variance in validation and invalidation ratings, we conducted analyses to examine the intercepts and slopes of validation and invalidation. The slope of validation was significant (B = .005, SE = .002, t(185) = 2.20, p = .03) such that therapist behavior was rated as more validating at later therapy sessions. The slope of invalidation however was not significant (p = .99). Because the slope of validation was significant, time was added to subsequent models of observer-rated validation but not invalidation. In addition to time, we conducted analyses to determine if clinic was associated with validation and

invalidation ratings; we decided a priori that if clinic was independently associated with validation or invalidation, it would be included in subsequent models.

Because validation is a construct emphasized in the delivery of DBT, we examined whether there were differences in validation and invalidation based on whether clients were seen by therapists in the DBT clinic or a non-DBT clinic (ASDC and PSC; in these analyses, DBT clinic was coded as 1 and the ASDC and PSC clinics were coded as 0). Clinic accounted for unique variance in validation (B = .45, SE = .12, t(44.3) = 3.76, p < .001) such that therapist behavior in the DBT clinic was coded as more validating than therapist behavior in the other clinics. Clinic did not account for unique variance in invalidation (p = .59). Clinic was added to subsequent models of observer-rated validation but not invalidation.

Several therapists in the study treated multiple clients. Specifically, the therapist who saw the largest number of clients saw 11, for a total of 41 sessions. The average number of clients seen by all other therapists was 2.04 (SD = .89; Range = 1 – 4) and the average number of study sessions for all other therapists was 6.56 (SD = 3.22; Range = 2 – 15). Because one therapist had many more clients and sessions on average than the other therapists and saw clients in two of the therapy clinics (PSC and DBT), a variable identifying this therapist (1 = this therapist, 0 = all other therapists) was entered as a predictor into hierarchical linear models of validation and invalidation. Therapist did not account for unique variance in validation (p = .16) or invalidation (p = .26).

We then compared all clients in the DBT clinic to all clients in the non-DBT clinics (PSC and ASDC) on study baseline variables. We found that at the first study

time-point, clients seen in the DBT clinic reported higher symptoms of depression (BDI-II; M = 23.88, SD = 11.94) than clients seen in the non-DBT clinics (M = 14.49, SD = 10.09, t(51) = -3.09, p < .01; d = .85). Further, DBT clients were more emotionally dysregulated (DERS-Total: M = 122.57, SD = 16.66) than clients in the non-DBT clinics (M = 96.30, SD = 21.32, t(59) = -4.91, p < .01; d = 1.38). They also had higher levels of interpersonal problems (IIP-Mean: M = 2.25, SD = .60) compared to non-DBT clients (M= 1.77, SD = .47, t(60) = -3.49, p < .01; d = .89) and higher levels of borderline personality disorder symptoms (PAI-BOR-Total: M = 46.95, SD = 8.03) compared to non-DBT clients (M = 32.63, SD = 9.77, t(60) = -5.87, p < .01; d = 1.60). Clients in the DBT clinic were more depressed, emotionally dysregulated and reported higher levels of interpersonal problems and borderline personality disorder symptoms than clients in non-DBT clinics (ASDC and PSC). By controlling for clinic in subsequent analyses, we are to a limited degree controlling for differences in symptoms (BDI-II & PAI-BOR), emotion regulation (DERS) and interpersonal problems (IIP).

# **Hypothesis Testing**

## Association of Observer-Rated Validation and Invalidation

Importantly, in correlation analyses, invalidation and validation were not significantly associated (r = -.04, p = .58). This was anticipated as validation and invalidation are theorized to be separable constructs as opposed to a unitary construct operating on opposite sides of a continuum.

### Hypothesis 1: Concurrent and Discriminant Validity.

To examine the concurrent and discriminant validity of observer ratings of validation and invalidation, we ran a series of repeated measure regression models.

We predicted that observer ratings of validation would not be associated with therapist variables including gender and experience. We decided a priori that if therapist variables were associated with observer-rated validation, we would control for them in subsequent models. We also predicted that observer ratings of validation would be positively related to client (SRVIS-C-Val) and therapist (SRVIS-T-Val) ratings of insession validation, as well as to client ratings of empathy (RES) and client (CALPAS-C) and therapist (CALPAS-T) ratings of the TA. Further, we predicted that observer ratings of validation would be inversely associated with client (SRVIS-C-Inval) and therapist (SRVIS-T-Inval) ratings of invalidation.

We also predicted that observer ratings of invalidation would not be associated with therapist variables including gender and experience. We decided a priori that if therapist variables were associated with observer-rated invalidation, we would control for them in subsequent models. We also predicted a positive association for observer ratings of invalidation with client (SRVIS-C-Inval) and therapist (SRVIS-T-Inval) ratings of invalidation and a negative association with empathy (RES) and client (CALPAS-C) and therapist ratings (CALPAS-T) of the TA and validation (SRVIS-C-Val, SRVIS-T-Val).

We included each independent variable entered alone in repeated measure regression models of observer ratings of validation and invalidation. From these models with single predictors, independent variables with p values < .10 were then entered into a

combined model to examine if they still accounted for variance in outcome (i.e., validation or invalidation) with the inclusion of all predictors. We then included clinic (DBT vs. non) as a control variable in models of observer-rated validation. Clinic was not entered into the combined model of observer-rated invalidation as clinic was not significantly associated with observer-rated invalidation.

In exploratory analyses of observer-rated validation, interactions with clinic were examined. Independent variables (main effects and interaction effects) with *p* values < .10 were then entered into a combined model to examine if they still accounted for variance in outcome with the inclusion of all predictors. Interactions with clinic were not examined in analyses of observer-rated invalidation as clinic was not significantly associated with invalidation.

### Validation: Primary Analyses.

In analyses of discriminant validity, we examined whether therapist experience accounted for unique variance in observer-rated validation. Neither the number of practica (B = .10, SE = .06, t(32) = 1.48, p = .15) nor the number of training hours the therapist completed (B = .00, SE = .00, t(25.3) = 1.22, p = .23) were associated with validation. Therapist gender was also not associated with validation (B = .13, SE = .17, t(29.8) = .75, p = .46).

Contrary to our expectations, client (SRVIS-C-Val; B = .02, SE = .02, t(193) = .88, p = .38) and therapist (SRVIS-T-Val; B = .006, SE = .03, t(169) = .22, p = .83) ratings of validation were not significantly associated with observer-rated validation. Further, neither client (SRVIS-C-Inval; B = .03, SE = .02, t(188) = 1.43, p = .15) nor therapist (SRVIS-T-Inval; B = .01, SE = .02, t(171) = .72, p = .48) ratings of invalidation were significantly associated with observer-rated validation. Client (CALPAS-C; B = -.11, SE = .07, t(130) = -1.61, p = .11) and therapist (CALPAS-T; B = .05, SE = .05, t(195) = .89, p = .37) ratings of the TA also were not significantly associated with observer-rated validation. Lastly, client ratings of therapist empathy (RES) were not significantly associated with observer-rated validation (B = -.005, SE = .008, t(102) = -.64, p = .52). These findings were unexpected as we anticipated that observer-rated validation would be associated with therapist and client ratings of validation as well as other therapeutic constructs including the TA and therapist empathy. These analyses indicate that observers are capturing something different than therapists and clients and all parties may have a different experience and conceptualization of validation. There was no combined model of validation as none of the predictors were significant or marginally significant at the .10 level.

### Validation: Exploratory Analyses – Interactions with clinic.

We examined whether clinic interacted with any of the independent variables (SRVIS, CALPAS, RES) in repeated measure regression models of observer-rated validation. While there was no main effect of client ratings of validation in the model previously reported, it was marginally significant (SRVIS-C-Val; B = .05, SE = .03, t(140) = 1.85, p = .07) when clinic and the interaction between clinic and client validation ratings (SRVIS-C-Val\*Clinic) were added to the model, such that therapists who were rated as more validating by their clients were rated as more validating by observers. This finding begins to demonstrate the construct validity of observer-rated validation in that

client and observer ratings of validation are related when clinic and the interaction between clinic and client ratings are included in the model. There was also a marginally significant interaction effect with clinic (SRVIS-C-Val\*Clinic; B = -.07, SE = .04, t(185) = -1.68, p = .09), such that DBT therapists who were rated as less validating by their clients, were rated as more validating by observers.<sup>1</sup>

Similarly there was no main effect of client ratings of invalidation (SRVIS-C-Inval) in the model previously reported, but when clinic and the interaction between clinic and client invalidation ratings were added to the model, there was a significant interaction effect with clinic (SRVIS-C-Inval\*Clinic; B = .08, SE = .03, t(165) = 2.35, p = .02), such that DBT therapists who were rated as more invalidating by their clients, were rated as more validating by observers.<sup>2</sup>

While there was no main effect of client ratings of empathy alone, when clinic and the interaction between clinic and client empathy ratings were added to the model, there was a significant interaction effect with clinic (RES\*Clinic; B = -.04, SE = .01, t(82.4) = -2.43, p = .02), such that DBT therapists who were rated as less empathetic by their clients, were rated as more validating by observers.<sup>3</sup> Collectively, these findings demonstrate the juxtaposition between DBT clients' ratings of therapist behavior and that of independent observers.

<sup>&</sup>lt;sup>1</sup> When time was added to the model, the client ratings of validation (SRVIS-C-Val) and the interaction effect with clinic (SRVIS-C-Val\*Clinic) were no longer marginally significant (p > .10).

<sup>&</sup>lt;sup>2</sup> When time was added to the model, the interaction between client ratings of invalidation and clinic (SRVIS-C-Inval\*Clinic) remained significant (p = .03).

<sup>&</sup>lt;sup>3</sup> When time was added to the model, the interaction between client ratings of empathy and clinic (RES\*Clinic) remained significant (p = .03)

When these interactions, main effects, and clinic were entered into a combined model with observer-rated validation as the outcome, the overall model was significant  $(X^2 = 34.41, p < .001; Table 3)$ . The interaction effect between clinic and client ratings of invalidation (SRVIS-C-Inval\*Clinic) was significantly associated with observer-rated validation (B = .13, p < .01), such that DBT therapists who were rated as more invalidating by their clients, were rated as more validating by observers. The main effect of clinic remained significant such that DBT therapists were rated as more validating (B = .52, p = .02).<sup>4</sup> The interactions between clinic and client ratings of empathy (RES\*Clinic; B = -.02, p = .50) and validation (SRVIS-C-Val\*Clinic; B = .04, p = .51) were no longer significantly or marginally significantly associated with observer-rated validation in this combined model. Collectively, these findings indicate that observers rate DBT therapists as more validating and that clients in the DBT clinic, who are more depressed, emotionally dysregulated and characterized by higher levels of borderline symptoms and interpersonal problems, appear to view therapist behavior in stark contrast to that of independent observers.

### **Invalidation: Primary Analyses.**

In analyses of discriminant validity, we examined whether therapist experience accounted for unique variance in observer-rated invalidation. Neither the number of practica (B = -.01, SE = .01, t(62.5) = -.58, p = .56) nor the number of training hours the therapist completed (B = .00, SE = .00, t(59.4) = .55, p = .59) were associated with

<sup>&</sup>lt;sup>4</sup> When time was added to the model, the interaction between client ratings of invalidation and clinic (SRVIS-C-Inval\*Clinic) remained significant (p < .01) as did the main effect of clinic (B = .51, p = .02).

invalidation. Therapist gender was also not associated with invalidation (B = .04, SE = .04, t(60.1) = 1.17, p = .25).

Client ratings of invalidation (SRVIS-C-Inval; B = .01, SE = .006, t(135) = 1.89, p = .06) were marginally associated with observer-rated invalidation, such that the more invalidating the client rated the therapist, the more invalidating the observer rated the therapist. Therapist ratings of invalidation (SRVIS-T-Inval) were not associated with observer ratings (B = .009, SE = .006, t(143) = 1.44, p = .15). Client ratings of validation (SRVIS-C-Val) were inversely associated with observer-rated invalidation (B = -.03, SE = .007, t(133) = -3.56, p < .001), such that therapists who were rated as more validating by clients were rated as less invalidating by observers. Therapist ratings of validation, however, (SRVIS-T-Val; B = .006, SE = .009, t(139) = .62, p = .54) were not associated with observer-rated invalidation. Both client (CALPAS-C; B = -.04, SE = .02, t(90.5) = -2.05, p = .04) and therapist (CALPAS-T; B = -.05, SE = .02, t(148) = -2.88, p < .01) ratings of the TA were inversely associated with observer-rated invalidation, such that the higher the ratings of the TA, the lower the observer ratings of invalidation. Lastly, client ratings of therapist empathy (RES; B = -.007, SE = .002, t(81.4) = -2.78, p < .01) were inversely associated with observer-rated invalidation such that the higher the client ratings of therapist empathy the lower the observer ratings of invalidation.

These findings begin to demonstrate the construct validity of observer-rated invalidation. All findings were in the expected direction. Observer-rated invalidation was associated with a poor TA as rated by both client and therapist and low levels of therapist empathy and validation, as rated by the client. While it would need to be replicated, there is some evidence at the p < .10 level that client ratings of invalidation are associated with observer-rated invalidation. Similarly, there is also evidence of discriminant validity as observer-rated invalidation was unrelated to therapist gender and experience.

When all variables with *p* values of < .10 were entered into a combined model with observer-rated invalidation as the outcome, the model was significant ( $X^2 = 5.53$ , p = .02; Table 4). Client ratings of invalidation (SRVIS-C-Inval; B = .00, *p* = .91), however, were no longer associated with observer-rated invalidation and client ratings of empathy (RES; B = -.01, *p* = .08) were only marginally associated with observer-rated invalidation. Client ratings of validation (SRVIS-C-Val; B = -.04, *p* < .01) and the TA (CALPAS-C; B = .13, *p* <.001) as well as therapist ratings of the TA (CALPAS-T; B = -.04, *p* = .03) remained significantly associated with observer-rated invalidation. The relation between client ratings of the TA and observer-rated invalidation however changed direction.<sup>5</sup> We believe that this could represent a suppression effect, specifically a positive net suppression (Darmawan & Keeves, 2006; Krus & Wilkinson, 1986). This could be due to the high degree of association between client ratings of the TA (CALPAS-C) with client ratings of empathy (RES; *r* = .78, *p* < .001) and validation (SRVIS-C-Val; *r* = .76, *p* < .001). While client ratings of the TA are highly associated

<sup>&</sup>lt;sup>5</sup> When the CALPAS-C was removed from this model, no variables were significantly associated with observer-rated invalidation. Only client ratings of validation (SRVIS-C-Val) were marginally associated with observer-rated invalidation (B = -.02, SE = .01, t(137) = -1.69, p = .09). Again, we believe this is because the independent variables were more strongly associated with each other than with observer-rated invalidation. Specifically, client ratings of empathy (RES) were highly associated with both client ratings of validation (SRVIS-C-Val; r = .79, p < .01) and invalidation (SRVIS-C-Inval; r = -.68, p < .01). Client ratings of validation (SRVIS-C-Val) and invalidation (SRVIS-C-Inval; r = -.56, p < .01). Meanwhile, client ratings of validation (SRVIS-C-Val) and invalidation (SRVIS-C-Inval) were moderately associated with each other (r = -.56, p < .01). Meanwhile, client ratings of validation (SRVIS-C-Val; r = .21, p = < .01) and empathy (RES; r = -.19, p - .19) and therapist ratings of the alliance (CALPAS-T; r = -.19, p = .02) were only weakly associated with observer-rated invalidation. Client ratings of invalidation (SRVIS-C-Inval; p = .10) were not significantly associated with observer-rated invalidation.

with these variables, they are only weakly associated with observer ratings of invalidation and this association is not significant (r = -.12, p = .09).

# Hypothesis 2: Client Characteristics as Predictors of Validation and Invalidation.

To examine which client variables (i.e., AIM, DERS, IIP, PAI-BOR), if any, were predictive of observer ratings of validation and invalidation, we ran a series of repeated measure regression models. We first ran models with each predictor (i.e., client variable) entered alone in models predicting observer ratings of validation and invalidation across study time-points. From these models with single predictors, independent variables with p values < .10 were then entered into a combined model to examine if they still accounted for variance in outcome with the inclusion of all predictors. Clinic (DBT vs. other) was entered in a final model as a control variable in models of observer-rated validation. It was not entered as a control variable in the model of observer-rated invalidation as clinic was not significantly associated with observer-rated invalidation.

In exploratory analyses of observer-rated validation, interactions with clinic were examined. Independent variables (main effects and interaction effects) with *p* values < .10 were then entered into a combined model to examine if they still accounted for variance in outcome with the inclusion of all predictors. Interactions with clinic were not examined in analyses of observer-rated invalidation as clinic was not significantly associated with invalidation.

### Validation: Primary Analyses.

We predicted that greater difficulties in emotion regulation (DERS-Total) and higher levels of borderline personality disorder symptoms (PAI-BOR-Total), interpersonal problems (IIP-Mean), and affect intensity (AIM-Total) would significantly predict observer-rated validation, such that higher levels of these constructs would contribute to lower levels of therapist validation. In the models of observer-rated validation with single predictors, difficulties in emotion regulation (DERS-Total; B = .006, SE = .002, t(61.2) = 2.39, p = .02) and borderline personality disorder symptoms (PAI-BOR-Total; B = .01, SE = .005; t(61.5) = 2.61, p = .01) positively predicted observer-rated validation.<sup>6</sup> These relations were in the direction opposite to what we anticipated. Therapists were more validating if the client had higher emotion regulation difficulties and borderline symptoms. This might suggest to some extent that therapists are altering their behavior based on the client's presentation. Interpersonal problems (IIP-Mean; B = .10, SE = .10, t(57.2) = 1.06, p = .29) and affect intensity (AIM-Total; B = .01, SE = .09, t(57.9) = -.09, p = .93), however, did not significantly predict observer-rated validation.

When both difficulties in emotion regulation (DERS-Total; B = .003, SE = .003, t(59.6) = .84, p = .40) and borderline personality disorder symptoms (PAI-BOR-Total; B = .01, SE = .01, t(61) = 1.31, p = .20) were entered into a combined model (X<sup>2</sup> = 51.94, *p* < .001), neither significantly predicted observer-rated validation.<sup>7</sup> It is important to note that borderline personality disorder symptoms and difficulties in emotion regulation were significantly and highly associated with each other (r = .72, p < .001) while the

<sup>&</sup>lt;sup>6</sup> Both DERS and PAI-BOR Total scores remained significant predictors (p < .05) of observer-rated validation when time was entered into the models.

<sup>&</sup>lt;sup>7</sup> When time and clinic were entered into the model, PAI-BOR-Total (p = .61) and DERS-Total (p = .75) remained non-significant.

correlation between observer-rated validation with emotion regulation difficulties (r = .33, p < .001) and borderline symptoms was much lower (r = .33, p < .001).

### Validation: Exploratory – subscales.

Additional subscales from the DERS, IIP and PAI-BOR were examined in a series of exploratory analyses. Difficulties engaging in goal-directed behavior (DERS-Goals; B = .03, SE = .01, t(61.1) = 2.43, p = .02) and limited access to emotion regulation strategies (DERS-Strategies; B = .02, SE = .007, t(62.3) = 2.27, p = .03) were significant predictors of observer-rated validation, such that greater dysregulation in these domains was associated with higher levels of validation. Further, lack of sociability (IIPsociability; B = .11, SE = .05, t(55) = 2.20, p = .03) also significantly predicted observerrated validation, such that the greater the lack of sociability, the higher observer-rated validation. Lastly, mood instability (PAI-BOR-Mood; B = .04, SE = .02, t(60.8) = 2.17, p = .03) and chronic emptiness (PAI-BOR-Emptiness; B = .03, SE = .02, t(62.4) = 2.10, p =.04) were significant predictors of observer-rated validation, such that higher levels of these variables predicted more validating behavior by the therapist, as rated by observers.<sup>8</sup> It appears that the more dysregulated, mood labile, self-dysregulated and the less sociable the client, the more validating the therapist. This is further support that perhaps the therapists are adjusting their behavior based on the presentation of the client. Specifically, the therapists' behavior is rated as more validating for those clients who indicate higher levels of distress at baseline.

 $<sup>^{8}</sup>$  All variables remained significant predictors (p < .05) of observer-rated validation when time was entered into the model.

When all significant predictors were entered into the same model predicting observer-rated validation, the overall model was significant ( $X^2 = 56.31$ , p < .001; Table 5). None of the predictors were significant, however, difficulties in goal-directed behavior (DERS-Goals; B = .02, p = .06) and lack of sociability (IIP-sociability; B = .11, p = .08) were significant at the .10 level. The direction of these relationships remained the same as in the models of single predictors described above.<sup>9</sup> When clinic was also entered into the model, only clinic (B = .33, SE = .13, t(48.7) = 2.54, p = .01) and time (B = .005, SE = .002, t(189)= 1.99, p = .05) were significant predictors of observer-rated validation, such that therapists in the DBT clinic were rated as more validating, and no variables of interest remained even marginally significant.

# Validation: Exploratory Analyses – interactions with clinic.

We then examined whether clinic interacted with any of the independent variables (AIM, DERS, IIP, PAI-BOR) in repeated measure regression models of observer-rated validation. While there was no main effect of affect intensity (AIM-Total) in the model of main effects, when clinic and the interaction between clinic and affect intensity were also added to the model, the interaction (AIM-Total\*Clinic; B = -.28, SE = .16, t(59.1) = -1.73, p = .09) was a marginally significant predictor of observer-rated validation, such that the DBT therapists of clients who self-reported higher affect intensity were rated as less validating.<sup>10</sup> There were no significant interaction effects between clinic with the DERS-

<sup>&</sup>lt;sup>9</sup> DERS-Goals and IIP-sociability remained marginally significant predictors (p < .10) when time was entered into the model.

<sup>&</sup>lt;sup>10</sup> When time was entered into the model, the interaction was no longer a marginally significant predictor of observer-rated validation (p = .11).

Total (B = .01, SE = .01, t(62.5) = -1.46, p = .15), IIP-Mean (B = .06, SE = .19, t(52.7) = .31, p = .76) or PAI-BOR-Total (B = .01, SE = .01, t(60.4) = -.93, p = .36) scores.

When clinic and the interaction between clinic and difficulties in goal-directed behavior (DERS-Goals\*Clinic) were added to the model with DERS-Goals as a main effect, the main effect remained and was significant (DERS-Goals; B = .03, SE = .01, t(59.8) = 2.38, p = .02), such that greater difficulties were associated with more validating observer-rated therapist behavior. The interaction was marginally significant (DERS-Goals\*Clinic; B = .05, SE = .02, t(57.2) = -1.88, p = .06), such that for DBT therapists, greater client difficulties in goal-directed behavior predicted lower observer-rated validation.<sup>11</sup>

While there was no main effect of impulsivity (DERS-Impulse) in the analyses conducted previously, when clinic and the interaction between clinic and impulsivity (DERS-Impulse\*Clinic) were entered into the model, the main effect of impulsivity became marginally significant (DERS-Impulse; B = .02, SE = .01, t(53.1) = 1.84, p = .07), such that higher client self-reported impulsivity predicted greater observer-rated validation. The interaction was significant (DERS-Impulse\*Clinic; B = .05, SE = .02, t(55.2) = -2.57, p = .01), such that DBT therapists of clients who reported more impulsivity were rated as less validating by observers.<sup>12</sup>

Lastly, while there was no main effect of negative relationships (PAI-BOR-Neg Relations) in the analyses of single predictors reported previously, when clinic and the

<sup>&</sup>lt;sup>11</sup> When time was entered into the model, the main effect (DERS-Goals; p = .02) remained significant and the interaction effect (DERS-Goals\*Clinic; p = .07) remained marginally significant.

<sup>&</sup>lt;sup>12</sup> When time was entered into the model, the main effect of impulsivity (DERS-Impulse; p = .07) remained marginal and the interaction significant (DERS-Impulse\*Clinic; p = .01).

interaction between clinic and negative relationships was entered into the model, the interaction effect (PAI-BOR-Neg Relations\*Clinic; B = -.07, SE = .03, t(47) = -2.02, p = .05) was a significant predictor of observer-rated validation, such that DBT therapists of clients who reported relationships characterized by more negativity were rated as less validating.

When all of these main effects, the main effects found to be significant in the primary analyses and interaction effects were entered into a combined model, the model was significant ( $X^2 = 32.34$ , p < .001; Table 6). The main effect of lack of sociability (IIP-sociability; B = .13, p = .03) remained a significant predictor of observer-rated validation, such that higher levels of lack of sociability predicted higher observer-rated validation. The main effect of difficulties in goal-directed behavior (DERS-Goals; B = .03, p = .06) became a marginally significant predictor of observer-rated validation, such that greater difficulties in goal-directed behavior predicted higher levels of validating behavior by the therapist. Clinic (B = .48, p < .001) too was a significant predictor of observer-rated validating.<sup>13</sup> Collectively, these findings suggest that on the whole, DBT therapists were more validating and across clinics, therapists are more validating with clients who have greater difficulties engaging in behavior aligned with their goals and with clients who are less sociable.

<sup>&</sup>lt;sup>13</sup> Effects did not change when time was entered into the model. The interaction between clinic and negative relationships (PAI-BOR-Neg Relations\*Clinic; B = -.06, SE = .04, t(43) = -1.76, p = .09) was marginally significant when time was added to the model, such that therapists of DBT clients who reported higher self-reported negative relationships were rated as less validating.

## **Invalidation: Primary Analyses.**

We predicted that greater difficulties in emotion regulation (DERS-Total) and higher levels of borderline personality disorder symptoms (PAI-BOR-Total), interpersonal problems (IIP-Mean), and affect intensity (AIM-Total) would significantly predict observer-rated invalidation, such that higher levels of these constructs would be associated with higher levels of observer-rated therapist invalidation. In the simple models of invalidation, borderline personality disorder symptoms significantly predicted observer-rated invalidation (PAI-BOR-Total; B = .002, SE = .001; t(61.4) = 1.98; p =.05), such that more borderline personality disorder symptoms predicted higher levels of observer-rated therapist invalidation. Therapists were more invalidating when clients presented with more borderline disorder symptoms. Difficulties in emotion regulation (DERS-Total; B = .005, SE = .00, t(64.5) = .83, p = .41), interpersonal problems (IIP-Mean; B = -.001, SE = .03, t(64.3) = -.04, p = .97) and affect intensity (AIM-Total; B = .10, SE = .02, t(64.5) = .39, p = .70) did not predict observer-rated invalidation.

### Invalidation: Exploratory Analyses – subscales.

Additional subscales from the DERS, IIP and PAI-BOR were examined in a series of exploratory analyses. Difficulties in goal-directed behavior (DERS goals; B = .01, SE = .003, t(69.2) = 2.13, p = .04) predicted higher levels of observer-rated invalidation. Further, impulsivity (PAI-BOR Impulsivity; B = .01, SE = .004, t(60.4) = 2.67, p < .01) was a significant predictor of observer-rated invalidation, such that greater client impulsivity was associated with more invalidating behavior by the therapist. When both of these predictors were entered into the same model, neither remained significant;

however, impulsivity was marginally significant (B = .008, SE = .004, t(66) = 1.93, p = .06).

# **Summary of Findings.**

In the models of single predictors, lower levels of sociability predicted higher observer-rated validation. Greater borderline symptoms and greater difficulties in goaldirect behavior predicted higher levels of both observer-rated validation and invalidation. As noted previously, validation and invalidation are separable constructs and both can and often do occur within a single therapy session. These client characteristics at baseline predicted both more validating and invalidating therapist behavior.

In the combined models however, greater difficulties in goal-directed behavior only predicted higher observer-rated validation, not invalidation. In the combined model of observer-rated invalidation, only impulsivity was a marginally significant predictor, such that greater impulsivity predicted higher observer-rated invalidation. When a client is impulsive, it could be more difficult to validate their behavior and internal experience and the therapist may instead be invalidating.

# Hypothesis 3: Disaggregation of between-client and within-client variation in Observer-rated Validation and Invalidation on symptom outcomes

### **Descriptive Statistics.**

Before we examined process-outcome relations, we excluded participants for whom we had fewer than three coding recordings. This reduced sample consisted of 51 therapist-client dyads. We then examined descriptive statistics of clients' symptom measures (BDI and BAI) and raw process scores (validation and invalidation) at each assessment time-point (Table 7). Symptom scores by time-point and clinic are presented graphically in Figures 1 and 2. To identify the degree of variation in scores accounted for by client, we also calculated ICCs for raw process and symptom scores. While the ICC for observer-rated validation was .58, indicating that more than half of the variation was between-client, the ICC for observer-rated invalidation was much lower at .13, indicating that only 13% of the variation was between-client while the remaining 87% was within-client.<sup>14</sup> For depressive symptoms (BDI-II), the ICC was .80, indicating that 80% of the variation was between-client while the remaining 20% was within-client. For anxiety symptoms (BAI), the ICC was .67, indicating that 67% of the variation was between-client while the remaining 23% was within-client.

### **Correlations.**

Subsequently between- and within-client scores were obtained from a series of regression models where assessment time-point, specifically days elapsed since session 1, was used as the predictor for each client individually (See Table 8 for descriptive statistics for within- and between-client scores). Observer-rated validation and invalidation scores at study time-points were regressed on time. In these models, the intercept represents the between-client variation or the value of validation or invalidation at the mean of study time-points (i.e., days elapsed since start of treatment) examined for each given client. The time-specific residual represents the within-client variation in validation or invalidation, that is the deviation of a client's observed validation or invalidation or invalidation or invalidation or the value of validation or invalidation or invalidation or invalidation or invalidation.

<sup>&</sup>lt;sup>14</sup> The ICCs for within-client scores are likely an overestimation as these estimates also include error.

at each session. The time-specific residuals from these client-specific regressions were retained as our estimates of within-client variation at each study time-point and the sample estimate of the regression intercept as our estimate of a given person's betweenclient score. To ease interpretation going forward, within-client scores (the residuals) represent the effect of within-client variability in validation or invalidation at a given session on BDI or BAI scores at the next-session while the between-client score (the intercept) represents the effect of between-client variability in validation or invalidation scores on symptom scores across study time-points (Curran & Bauer, 2011). Clientspecific SDs were obtained as indices of variability in within-client scores of validation and invalidation. The average and range of these SDs is summarized in Table 8.

Prior to examining the relation of between and within-client process scores with symptom outcome, we examined the relations among process variables. While there was one correlation analyzed across study time-points for between-client validation with invalidation, correlations between within-client validation with invalidation were examined at each study time-point. These within-client correlations were then converted to z-scores, were averaged and then converted back to a Pearson r correlation value. This correlation value represented the average within-client process score (validation and invalidation) correlation across study time-points. The correlation of between-client validation with invalidation was not significant (r = -.007, p = .92) although the average correlation of within-client validation with invalidation was weak (r = -.24) and was significant (r = -.46, p < .05) at one of four study time-points. The correlation was marginally significant (r = -.28, p = .06) at one other study time-point. Across clients,

observer-rated validation and invalidation were not significantly associated but within clients, there was an overall weak negative relationship between observer-rated validation and invalidation. This relation was both moderate in strength and significant at only one of the four study time-points.

### **Repeated Measure Regression Analyses without Disaggregation.**

Before conducting repeated measure regression analyses disaggregating between and within components, we conducted these analyses by entering: 1. prior session symptom scores (BAI and BDI-II), 2. clinic and, 3. each raw process variable score (observer-rated validation or invalidation) into regression models with either depressive (BDI-II) or anxiety symptoms (BAI) as the outcome. Models with depressive symptoms as the outcome variable were fit with an unstructured covariance structure matrix while models with anxiety symptoms as the outcome were fit with a compound symmetry structure matrix as these were found to have the best fit. For all models, autoregressive, heterogeneous autoregressive, compound symmetry, unstructured and toeplitz covariance structures were examined. For all models, the estimation method of maximum likelihood was specified and between-within was used as the method for calculating degrees of freedom.

### Depressive Symptom Model.

In the analysis with observer-rated validation as the predictor variable and depressive symptoms as the outcome, prior session depressive symptoms (B = .77, SE = .05, t(45) = 14.30, p < .001) and clinic (B = 4.34, SE = 1.36, t(45) = 3.20, p = .003) positively predicted subsequent session depressive symptoms, such that higher levels of

prior session depressive symptoms and being in the DBT clinic were associated with higher than predicted subsequent session depressive symptoms. Specifically, for every one point change in the BDI-II score, the model predicted a .77 point higher depressive symptom score at the next session. Being in the DBT clinic versus a non-DBT clinic was associated with a 4.34 point higher depressive symptom score at the next session than was expected (controlling for prior session BDI-II score). Validation was not significantly associated with subsequent session depressive symptoms and while the association was nonsignificant, the direction of the effect was opposite to what was expected (B = .86, SE = .56, t(45) = 1.55, p = .13).

When invalidation was examined as a predictor, prior session depressive symptoms (B = .78, SE = .05, t(45) = 14.67, p < .001), clinic (B = 5.04, SE = 1.27, t(45)= 3.97, p < .001) and invalidation (B = .91, SE = .44, t(45) = 2.09, p = .04) all positively predicted subsequent session depressive symptoms, such that higher levels of prior session depressive symptoms, being in the DBT clinic, and higher levels of invalidation were associated with higher subsequent session depressive symptoms than predicted. Specifically, for every one point change in the BDI-II score, the model predicted a .78 point higher depressive symptom score at the next session. Being in the DBT clinic versus a non-DBT clinic was associated with a 5.04 point higher depressive symptom score at the next session. Lastly, for every one point change in invalidation, the model predicted a .91 point higher depressive symptom score at the subsequent session than was expected, when controlling for prior session depressive symptoms.

## Anxiety Symptom Model.

When anxiety symptoms were examined as the outcome variable in a similar model with validation as the predictor in addition to prior session anxiety symptoms and clinic, only prior session anxiety symptoms positively predicted subsequent session anxiety symptoms such that the higher the anxiety symptoms at prior sessions, the higher they were than predicted at later sessions (B = .79, SE = .06, t(68) = 13.17, p < .001). For every one point change in the BAI score at a given session, the model predicted a .79 point higher BAI score at the next session. Neither clinic (B = 1.81, SE = 1.03, t(45) = 1.76, p = .09) nor validation (B = .01, SE = .53, t(68) = .02, p = .99) were statistically significant predictors of anxiety symptoms.

In the model with anxiety symptoms as the outcome variable and invalidation as one of the predictor variables, again only prior session anxiety symptoms significantly predicted subsequent session anxiety symptoms such that for every one point change in the BAI score at a given session, the model predicted a .78 point higher BAI score at the next session (B = .78, SE = .06, t(68) = 12.93, p < .001). Neither clinic (B = 1.58, SE = .90, t(45) = 1.76, p = .09) nor invalidation (B = .77, SE = .52, t(68) = 1.49, p = .14) significantly predicted anxiety symptoms.

# Repeated Measure Regression Analyses with Disaggregation of Within- and Between-Components.

For each of the process variables (observer-rated validation and invalidation), we conducted a repeated measures regression model whereby both within- and betweenclient components for each process score were entered as predictors with clinic and prior session symptoms in models of next session symptoms as the outcome (Curran & Bauer, 2011).<sup>15</sup> In the models with depressive symptoms (BDI-II) as the outcome variable, an unstructured covariance structure had the best fit. In the models with anxiety symptoms (BAI) as the outcome variable, a compound symmetry covariance structure was the best fitting model. For all models, autoregressive, heterogeneous autoregressive, compound symmetry, unstructured and toeplitz covariance structures were examined. Again, for all models, the estimation method of maximum likelihood was specified and between-within was used as the method for calculating degrees of freedom.

In separate models, the interactions between clinic with the within- and betweenclient components were also examined. When interaction effects were significant or marginally significant, they were entered into the repeated measure regression models with the main effects of within- and between-validation or invalidation, prior session depressive or anxiety symptoms and clinic. To ease interpretation, within- and betweenclient components of validation and invalidation were standardized.

# Do Models change when Therapist included as a Random Effect?

We examined the role of therapist in models of symptom outcome. As a first step, we calculated the ICCs for therapist as a measure of variability in BDI-II and BAI scores attributable to between-therapist differences. The ICC with the BDI-II as the outcome was .47 while the ICC with the BAI as the outcome was .24. These ICCs indicate that

<sup>&</sup>lt;sup>15</sup> In order to examine the average relationship between time (time from session 1) and process variables (validation and invalidation) over the four study time-points, we also used Hierarchical Linear Models to test for the fixed effect of time on raw process scores. Both random intercepts and slopes were modeled. Results indicated that the slope of validation was significantly positive (B = .005, SE = .002, t(134) = 2.04, p = .04). For invalidation, the slope did not significantly differ from zero (p = .89). For invalidation, we examined between- and within-client scores from a person mean-centering approach (without also mean centering by time from session 1) as predictors of session to session symptom change. The significance of within- and between-client invalidation scores in this model did not differ from that in our primary models where variables were mean-centered by person and time.

47% of variation in client BDI-II scores was attributable to between-therapist variability while 24% of variation in client BAI scores was attributable to between-therapist variability. Modeling therapist as a random effect did not improve model fit in either the depressive symptom model (p = .33) or the anxiety symptom model (p = .17) but given the high ICCs, in the models that follow, therapist was modeled as a random effect to examine whether or not the significance of findings was maintained with the inclusion of therapist.

# Do Within- or Between-Client Validation scores predict symptom change? Depressive Symptom Model with Validation.

In the model with depressive symptoms as the outcome variable, neither withinclient (B = .74, SE = .46, t(44) = 1.60, p = .12) nor between-client (B = .05, SE = .64, t(44) = .08, p = .94) validation scores significantly predicted outcome. Only prior session depressive symptoms (B = .82, SE = .05, t(44) = 15.72, p < .001) and clinic (B = 4.41, SE = 1.25, t(44) = 3.53, p < .01) significantly predicted depressive symptoms. Specifically, for every one point higher a client's BDI-II score at a given session, the model predicted a .82 point higher BDI-II score at the subsequent session. Further, being in the DBT clinic versus a non-DBT clinic predicted a 4.41 point higher BDI-II score at the subsequent session than expected when controlling for prior session depressive symptoms.<sup>16</sup>

When the interactions between clinic and within- and between-client validation scores were examined along with the main effects of between- and within-client

<sup>&</sup>lt;sup>16</sup> Direction and significance of effects in this model did not change when therapist was modeled as a random effect.

validation scores, prior session depressive symptoms, and clinic, the interaction between clinic and the within-client validation scores was statistically significant (Validation-within\*Clinic; B = 2.80, SE = .86, t(43) = 3.26, p < .01). The interaction of between-client validation scores with clinic was not significant (B = 1.73, SE = 1.24, t(43) = 1.40, p = .17).

When only the interaction of within-client validation scores and clinic (Validation-within\*Clinic) was added into the model with the main effects of within- and between-client validation scores, prior session depressive symptoms, and clinic, it was a significant predictor of subsequent session depressive symptoms (Validationwithin\*Clinic; B = 2.83, SE = .86, t(44) = 3.29, p < .01; Figure 3) as were prior session depressive symptoms (B = .82, SE = .05, t(44) = 15.81, p < .001) and clinic (B = 4.20, SE = 1.25, t(44) = 3.36, p < .01). The within-client (B = -.69, SE = .60, t(44) = -1.14, p = .26) and between-client (B = .23, SE = .63, t(44) = .36, p = .72) components of validation scores remained insignificant.<sup>17</sup> This interaction effect (Validation-within\*Clinic) indicates that for those in the DBT clinic, higher observer-rated validation scores at a given session predicted higher depressive symptoms at subsequent sessions than were predicted from prior session depressive symptom scores. This interaction effect is surprising as validation is theorized to contribute to symptom improvement or at least is not believed to worsen or slow symptom improvement. Specifically, for every one standard deviation increase in observer-rated validation for a client in the DBT clinic, the next session BDI-II score was 2.14 points higher than predicted. For every one standard

<sup>&</sup>lt;sup>17</sup> Direction and significance of effects in this model did not change when therapist was modeled as a random effect.

deviation increase in observer-rated validation for a client in a non-DBT clinic (ASDC or PSC), the next session BDI-II score was .69 points lower than predicted. While the interaction between clinic and within-client validation scores was significant, the conditional effects of within-client validation for both the DBT (p = .82) and non-DBT clinics (p = .91) were not significantly different from zero. We believe this is due to the reduced sample size in each of these groups (DBT clinic: n = 17; non-DBT clinic: n = 34).

### Anxiety Symptom Model with Validation.

In the model with anxiety symptoms as the outcome variable, prior session anxiety symptoms (B = .84, SE = .06, t(68) = 14.50, p < .001) and clinic (B = 2.12, SE = .97, t(44) = 2.19, p =.03) were the only significant predictors of subsequent session anxiety symptoms. Specifically, for every one point higher a client's BAI score at a given session, the model predicted a .84 point higher BAI score at the next session. Being in the DBT versus another clinic was also associated with a 2.12 point higher than predicted BAI score at the next session. Neither within- (B = 1.02, SE = .53, t(68) = 1.93, p = .06) or between-client (B = -.33, SE = .50, t(44) = -.65, p = .52) validation scores significantly predicted anxiety symptoms; however, within-client validation scores were marginally significant. For every 1 standard deviation increase in a client's validation score at a given session, the next session BAI score was 1.02 points higher than predicted, contrary to our expectations. There were no significant interaction effects for either the betweenor within-client validation scores with clinic.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> Direction and significance of effects in this model did not change when therapist was modeled as a random effect.

# Do Within- or Between-Client Invalidation scores predict symptom change? Depressive Symptom Model with Invalidation.

In the model with depressive symptoms as the outcome variable, prior session depressive symptoms (B = .82, SE = .05, t(44) = 15.96, p < .001), clinic (B = 4.94, SE = 1.20, t(44) = 4.10, p < .001) and within-client invalidation scores (B = .94, SE = .42, t(44) = 2.23, p = .03) significantly predicted outcome. Specifically, for every one point higher a client's BDI-II score at a given session, the model predicted a .82 point higher BDI-II score at the next session. Further, being in the DBT clinic versus a non-DBT clinic was associated with a 4.94 point higher than predicted BDI-II score at the next session. Lastly and most relevant to our hypotheses, when a validation rating at a given session was 1 standard deviation higher, the model predicted a .94 point higher BDI-II score at the next session than expected from prior session symptoms. There were no significant interaction effects for either the between- or within-client invalidation scores with clinic.<sup>19</sup>

### Anxiety Symptom Model.

In the model with anxiety symptoms as the outcome variable, only prior session anxiety symptoms significantly predicted subsequent session anxiety symptoms (B = .79, SE = .06, t(68) = 13.33, p < .001). Clinic (B = 1.61, SE = .88, t(44) = 1.83, p = .07) was a marginally significant predictor of anxiety symptoms such that being in the DBT clinic versus a non-DBT clinic was associated with a 1.61 point higher than predicted BAI score at the next session. Neither within- (B= -.38, SE = .60, t(68) = -.63, p = .53) or between-client (B = .56, SE = .42, t(44) = 1.35, p = .18) invalidation scores significantly

<sup>&</sup>lt;sup>19</sup> Direction and significance of effects in this model did not change when therapist was modeled as a random effect.

predicted anxiety symptoms. There were no significant interaction effects for either the between- or within-client invalidation scores with clinic.<sup>20</sup>

# Combined Model with both Validation and Invalidation – is one a stronger predictor of subsequent session depressive symptoms?

The main effects of within-client validation and invalidation scores were entered into the same model with the interaction between clinic and within-client validation, prior session depressive symptoms, and clinic (Table 9). With the interaction between clinic and within-client validation scores (Validation-within\*Clinic) in the model, the main effects of within-client invalidation (B = .66, p = .13) and within-client validation (B = -.35, p = .58) were no longer significant. Only prior session depressive symptoms (B = .82, p < .001), clinic (B = 4.59, p <.001) and the interaction between clinic and withinclient validation (B = 2.33, p = .01) were significant predictors of subsequent session depressive symptoms. That is, the effect of within-client validation on BDI-II scores varied by clinic.

Specifically for every 1 point higher a client's BDI-II score at a given session, the model predicted a .82 point higher BDI-II score at the next session. Further, being in the DBT clinic versus a non-DBT clinic was associated with a 4.59 point higher than predicted BDI-II score at the next session. The interaction was probed to determine the conditional effect of within-client validation scores on BDI-II scores as a function of clinic (Figure 4). In the DBT clinic, for every one standard deviation increase in a client's validation score at a given session, there was a 1.98 point higher than predicted BDI-II

<sup>&</sup>lt;sup>20</sup> When therapist was included in the model as a random effect, direction and significance of effects did not change.

score at the next session. In the non-DBT clinics, for every one standard deviation increase in a client's validation score at a given session, there was a .35 point lower than predicted BDI-II score at the next session. While the interaction between clinic and within-client validation scores was significant, the conditional effects of within-client validation for both the DBT (p = .96) and non-DBT clinics (p = .85) were not significantly different from zero. Again, we believe this is due to the reduced sample size in each of these groups (DBT clinic: n = 17; non-DBT clinic: n = 34).

When the interaction was removed from the model and only the main effects of within-client validation and invalidation were entered into the model with prior session depressive symptoms and clinic, within-client invalidation (B = 1.07, p = .01) was a significant predictor of subsequent session symptoms while within-client validation was marginally significant (B = .86, p = .054; Table 7). Clinic and prior session depressive symptoms remained significant predictors of subsequent session depressive symptoms cores.

There was not a combined model with both validation and invalidation predicting anxiety symptoms as between- and within-client invalidation scores were not significant or even marginally significant predictors of subsequent session BAI scores. Only withinclient validation scores were predictive of subsequent session BAI scores.

### Summary of Findings.

Without disaggregating within- and between-client validation and invalidation scores, different conclusions may have been made. In the repeated measure regression analyses without disaggregation, invalidation was a significant predictor of subsequent session depressive symptoms while validation was not. When validation process scores were disaggregated, the interaction of the within-client validation score with clinic was significantly negatively predictive of subsequent session depressive symptoms. When invalidation process scores were disaggregated, only within-client invalidation scores were significantly predictive of subsequent session depressive symptom scores. It was the variability within as opposed to across clients that was driving the significant findings of the previous analyses without disaggregation.

In the models with anxiety symptoms as the outcome, neither validation nor invalidation were significant predictors of subsequent session anxiety symptoms. When validation process scores were disaggregated, within-client validation scores were marginally significant predictors of subsequent session anxiety symptoms. When invalidation process scores were disaggregated however, neither between- or withinclient invalidation scores were significant or marginally significant predictors of subsequent session anxiety symptoms.

## **Chapter 4: Discussion**

In terms of construct validity, we found that validation could be discriminated from therapist variables (e.g., gender, experience); however, observer-rated validation was not associated with other measures of validation nor was it associated with the TA or empathy. As such, the overall conclusion about the validity of this construct in this sample is somewhat mixed. The discriminant validity findings were consistent with our hypotheses; therapist behavior was not rated as any more or less validating on the basis of therapist variables alone. In our examination of the concurrent validity of observer-rated validation, we did not find any significant main effects for client or therapist ratings of validation and invalidation. These findings highlight the difference in perspective and subjective experience of validation.

One possible explanation for the lack of association between client and observer ratings of validation may be measurement differences as clients and observers rated validation and invalidation with different measures. The client self-report measure may not have appropriately captured the breadth of validation and invalidation as there were only five items to measure each subscale. While the self-report measure of validation and invalidation appears to tap these experiences in experimental manipulations, it is possible that it does not appropriately capture validation and invalidation in the therapy context. Items may not be specific enough to the type of validation and invalidation that can be experienced by the client in therapy. Conversely, the observer measure may have been too detailed and missed the overall experience of the client throughout the therapy session. Although observers rated overall validation and invalidation on a 7-point Likert scale, they did this after having already rated all levels of validation and invalidation. Our findings were contrary to expectations that we would at least find weak associations amongst different measures of therapist validation. Research utilizing a multitraitmultimethod approach often finds associations (albeit low) across raters, despite measurement variance. However, it is possible that clients in the DBT clinic did feel validated and their therapists also felt they were being validating but not in a way that agreed with independent observers.

Further, client ratings of the TA and empathy and therapist ratings of the TA were not significantly associated with observer-rated validation. These findings may indicate that for the average client, validation (as rated by observers) is not relevant to perceptions of empathy or the TA; this was surprising as we anticipated validation would be at least weakly associated with empathy and the TA but these findings indicate that these constructs (at least when assessed by multiple reporters) are distinct. In order to be more confident in the conclusion that validation is distinct from the TA and empathy, in future studies, it would be important to also measure empathy and the TA with ratings by independent observers as our lack of significant findings in this study could be due to different modes of measurement, across client, therapist and observer. While validation and invalidation were measured by the client, therapist and observer, the TA was measured by client and therapist alone and empathy by client report alone.
When interactions with clinic were examined, client ratings of invalidation interacted with clinic such that DBT therapists of clients who reported higher levels of invalidation were rated as more validating by observers. This finding indicates that specifically for the DBT clients, who were more emotionally dysregulated and depressed and who had higher levels of interpersonal problems and borderline symptoms, client and independent observer ratings of therapist behavior were quite different. There are a few potential explanations.

Coders were instructed to rate therapist behavior based on how the average client would react, unless there was an obvious reaction by the client that indicated whether or not she felt validated or invalidated. Clients who have more severe pathology (e.g., clients in the DBT clinic), however, may not experience therapist behavior as "the average person" would. For example, in studies of individuals with BPD or high BPD features, researchers found theory of mind deficits such that recognition of emotions, thoughts and intentions of others was worse than in control participants (Harari, Shamay-Tsoory, Ravid, & Levkovitz, 2010; Preibler, Dziobek, Ritter, Heekeren, & Roepke, 2010). Other research evidence suggests that individuals with BPD have greater access to negative memories, more often evaluate themselves and others in a negative light and make negatively biased interpretations of neutral and ambiguous stimuli (Baer, Peters, Eisenlohr-Moul, Geiger, & Sauer, 2012). Collectively, these findings indicate that individuals with BPD more often have difficulty interpreting another's behavior and are negatively biased in both their interpretation and in their memory recall. This could in turn negatively impact their experience of therapist behavior and their report of that

61

experience. Another possible explanation for the interaction effect is that it may take even higher levels of validation in order for the emotionally dysregulated client to feel validated or it may take more time for the therapist to understand the client's internal experience in order to validate them appropriately.

This study, however, was conducted during early sessions of therapy (sessions 3 -7). Validation is the communication of *understanding* of the client's internal experience. For clients with more severe symptoms and personality pathology, early-session validating behavior by the therapist may be perceived as disingenuous. The client may think that the therapist could not possibly understand her experience in such a short amount of time. For example, in a comparison study of treatment by traditional versus peer providers for clients with severe mental illness, communications from and interactions with peer providers were perceived to be more validating compared to those with traditional treatment providers (Sells, Black, Davidson & Rowe, 2008). These findings indicate that clients may be more receptive to therapists who appear to have had similar experiences. DBT clients in the current study may have viewed their experience and situation as very different from that of their therapist and this may have led to perception of therapist behavior as invalidating.

In analyses of the concurrent and discriminant validity of observer-rated invalidation, findings were more in line with what was anticipated. Observer-rated invalidation was not associated with therapist variables including gender and experience, indicating its discriminant validity. Lower client ratings of validation, TA, and empathy and therapist ratings of the TA were associated with higher observer-rated invalidation demonstrating concurrent validity of observer-rated invalidation. As in the findings of observer-rated validation though, client and therapist ratings of invalidation were not significantly associated with observer-rated invalidation. This is further evidence that clients, therapists, and observers are not aligned in their view of therapist behavior, in this case specifically invalidation. Overall, observer-rated invalidation was inversely associated with therapeutic constructs that are generally perceived to be positive and unrelated to therapist demographic variables. It seems that observers perceive invalidation as a negative construct within the therapy context; invalidating behavior is not empathic and is associated with a weaker TA.

When client characteristics were examined as predictors of observer-rated validation and invalidation, client-reported difficulties in goal-directed behavior and low levels of sociability predicted higher observer-rated validation. Greater borderline disorder symptoms predicted higher observer-rated invalidation and there was a trend toward greater client-reported impulsivity predicting observer-rated invalidation. The therapist tended to be more validating when the client reported struggling in moving towards her goals and when the client reported being less sociable. This validating behavior may be purposeful by the therapist or it may be that the observer is reacting to the client's in-session behavior and rating the therapist efforts as more validating. That is, if a client is less sociable, presumably she would be more withdrawn or detached throughout session. The therapist may then be taking an even more active role, working to draw the client out in-session. This may take the form of the therapist making more observations and posing more questions. When observations and questions are

specifically about the client's internal experience and facilitate a more accurate understanding, they would be rated as validating.

Further, the therapist was rated as more invalidating with clients who reported higher levels of borderline symptoms and impulsivity at study baseline. It may be harder for the therapist to validate the client's internal experience when the client's behavior is impulsive, particularly if impulsive behavior leads to problematic consequences. For example, if a client reported that following a disagreement with her partner, she threw her phone against the wall and began drinking alcohol, the therapist might react to the problematic behaviors without validating the internal experiences of hurt, anger, and urges to act on impulse, in this case an urge to lash out. Thus, although it would not be rated as invalidating to work on problem-solving and solution analysis in this situation, the missed opportunity to validate the internal experience would be coded as invalidating.

Interestingly, at the bivariate level, higher levels of borderline symptoms predicted both higher observer-rated validation and invalidation. When borderline symptoms and difficulties in emotion regulation were entered into the same model, however, neither predicted observer-rated validation. This may be an instance of multicollinearity as borderline symptoms and difficulties in emotion regulation were strongly associated. Affect intensity, difficulties in emotion regulation and interpersonal problems did not predict observer-rated invalidation. Findings indicate that while therapists may be adjusting their behavior, purposefully or not, to be more validating with clients who are less sociable and less goal-directed, they may also meet their client's dysregulation (i.e., impulsivity, borderline symptoms) with more invalidating behaviors.

64

This latter finding could be a demonstration of the transactional model, such that therapists are reacting to their client's dysregulation with invalidation, which may in turn increase dysregulated behavior (Fruzzetti & Worrall, 2010; Fruzzetti, Shenk & Hoffman, 2005).

These findings are preliminary evidence that therapist behavior is responsive to pre-existing client characteristics for better and for worse. To the extent that validation and invalidation are impactful on the client-therapist relationship and the course of treatment, it would be important to make therapists aware of the ways in which they may respond to client characteristics. It may be worthwhile to examine how training in validation strategies could alter therapist behavior and treatment course. As highlighted by Linehan (1997), validation can serve a number of functions including functioning as an acceptance strategy to both balance and encourage change, to teach the client how to validate herself, to strengthen clinical progress by reinforcing goal-aligned behaviors, to provide feedback in therapy about the client and her behavior, and lastly, to strengthen the therapeutic relationship and promote engagement in treatment.

Perhaps the most interesting and critical finding of this study was found when disaggregating within- and between-client process scores in analyses of next session symptoms. In the combined model analysis of the disaggregation of between- and withinclient validation and invalidation scores, only the interaction between within-client validation scores and clinic significantly predicted next session depressive symptoms, when controlling for both clinic and prior session depressive symptoms. In the DBT clinic, higher validating therapist behavior at a given session was associated with higher depressive symptoms at the next session than predicted from the prior session. Contrary to expectation, validation in the DBT clinic specifically predicted worsening of symptoms or slowed improvement. Perhaps this is due to the difference in how validation is perceived by clients in the DBT clinic versus independent observers. When observers rated therapist behavior as validating, clients tended to rate this same behavior as invalidating.

Further, as previously mentioned, in the current study we examined early therapy sessions. It may not be realistic to anticipate that validating therapist behavior could shift symptoms early in treatment. (However, a study of a short-term partial hospitalization treatment for BPD found improvements in mood, emotion dysregulation, nonsuicidal self-injury and symptom severity following 1 month of treatment but this treatment was more intensive than that provided in the current study; Gratz, Lacroce, Gunderson, 2006). Contrary to expectations and theory, validating therapist behavior might increase symptoms in the short-term or slow the rate of symptom improvement as therapists could be validating the experience of depression or anxiety. Shenk and Fruzzetti (2011) discuss how validation is not necessarily intended to change the client's present emotional experience but is rather used to facilitate accepting and experiencing which may increase negative emotions and, in turn, symptoms in the short run. For example, in the context of couples' relationships, Gleason, Iida, Shrout, and Bolger (2008) found that support predicted greater self-reported closeness and higher negative mood. The increase in negative mood resulted even when controlling for number of daily stressors. This does not necessarily mean that symptoms would be exacerbated in the long-term but it is

important to conduct a study of longer duration and examine the course of symptom change across treatment, especially since symptom change is not an early-treatment target in DBT. There could also be a number of other variables that validation positively impacts such as increased engagement, treatment compliance, emotion regulation, or stability of relationships and decreased frequency of self-harm behavior, and these may be more appropriate outcome variables than symptoms. For example, in a study of therapist-client dyads in a DBT program, high therapist instruction coupled with therapist behavior similar to validation (i.e., treating the client as autonomous) was associated with a decrease in suicidal behaviors (Shearin & Linehan, 1992).

Theory suggests that validation is of particular importance to those with higher BPD symptoms as they tend to be more emotionally dysregulated and have more intense and impulsive responses to emotional stimuli (Linehan, 1993). Clients in the DBT clinic were more emotionally dysregulated, depressed, and had higher levels of interpersonal problems and BPD symptoms than clients seen in the ASDC and PSC. Given the higher levels of emotion dysregulation, it is possible that these individuals were more likely to express their emotions inaccurately (e.g., expressing anger instead of sadness; Fruzzetti & Worrall, 2010) and the therapist may then have had greater difficulty accurately validating the internal experience as they may not have been asking the right questions or accurately picking up on cues to validate the client's internal experience. As discussed by Linehan (1993), it can be difficult to uncover the validity within the client's response. Instead, as Fruzzetti and Worrall (2010) note, it becomes easier to invalidate the inaccurate expression of the emotional experience. When the interaction between clinic and within-client validation scores was removed from the combined model of depressive symptoms, within-client invalidation scores predicted depressive symptoms in the anticipated direction. Higher observer-rated invalidation by the therapist was associated with higher depressive symptoms at the subsequent session than predicted from prior session symptoms. This effect was in line with our hypotheses and the underlying theory that invalidation is a negative predictor of treatment course. Further, it is consistent with findings from experimental manipulations suggesting that invalidation contributes to worse affective outcomes (e.g. decreases in positive affect, increases in negative affect, increases in aggressive behavior, delay in recovery to emotional baseline; Herr et al., 2015; Benitez & Cheavens, 2014; Shenk & Fruzzetti, 2011; Stigen & Cheavens, 2011; Woodberry et al., 2008).

#### **Study Limitations**

As noted previously, perhaps the biggest limitation of this study was the low reliability of observer-rated invalidation. Despite this low reliability, analyses yielded significant findings. While these findings should be interpreted with caution given low reliability, it is notable that even given the restricted range of observer-rated invalidation, this variable still predicted subsequent session depressive symptoms.

While a study of longer duration would aid in the examination of long-term symptom course, the current study may also have been limited by not assessing validation and invalidation in the very first therapy sessions. Because study participants were recruited across therapy clinics after initial intake assessments, it was logistically unrealistic to consent and enroll participants (both clients and therapists) prior to session 1 of therapy. This would however be desirable in future studies to assess how the earliest therapist behavior predicts clinical course and to examine if therapist behavior changes over time.

The current study was limited by both sample size and a mixed clinic sample. Despite ongoing enrollment over a period of more than two years, our sample size in this study was modest due to missing data and availability of therapy recordings. It would be important to replicate this study in a larger sample and also examine whether or not findings generalize beyond training clinic populations.

The study sample was also drawn from three different training clinics. While validation can be present in any form of therapy, it is a core component of DBT. Validation was likely not emphasized during training in the same way in the ASDC and PSC clinics as it was in the DBT clinic. Validation may also not be as important for clients who are not as emotionally dysregulated as clients typically seen in a DBT clinic. For these reasons, it would be important to examine therapist validation and invalidation in a DBT sample alone. A sample from multiple clinics complicates our findings. While it is apparent that there are clinic differences, power is restricted to examine therapist behavior and outcome in any one clinic alone.

#### Conclusions

Our results support our initial hypotheses that validation and invalidation are distinct from some therapist variables. Findings demonstrating concurrent validity of these constructs, however, are mixed. While validation was not found to be associated with other therapy constructs including the TA and empathy, invalidation was negatively

associated with these constructs. Further, observer ratings of validation and invalidation were not associated with client and therapist ratings of the same construct. Differences in observer, client and therapist ratings may be particularly important for those who are more emotionally dysregulated or have higher levels of personality pathology. Our hypothesis that therapist behavior would differ as a function of client characteristics was partially supported but not completely in the direction that was anticipated. Therapists were more validating with less sociable and goal-directed clients and more invalidating with more impulsive clients. Interestingly, therapists were both more validating and invalidating with clients with higher levels of BPD symptoms. Findings of the relation between validation and invalidation with outcome were also mixed. While more validating behavior by therapists in the DBT clinic was associated with higher depressive symptoms, more invalidating behavior was associated with higher depressive symptoms across clinics. Future studies need to examine the associations between validation and invalidation with outcome in a DBT sample where validation is presumably more frequent, and in a study of longer duration that tracks therapist behavior from the very beginning of treatment. Despite the limitations of the current study, it is the first to examine observer-rated validation, invalidation, client presentation, and symptom course in the therapy context and provides insight into the dynamic interplay amongst these variables.

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Appendix A. Tables

Descriptive Statistics of Client Characteristics at Study Baseline

Variable	М	SD	Min	Max
AIM Total	3.83	0.60	2.25	5.20
DERS Total – Sum	106.00	23.75	63.00	156.00
DERS Awareness	15.66	4.84	6.00	30.00
DERS Clarity	13.98	4.60	7.00	25.00
DERS Goals	19.10	4.71	9.00	25.00
DERS Impulse	14.85	5.79	6.00	30.00
DERS Nonacceptance	17.11	6.25	6.00	30.00
DERS Strategies	25.32	8.15	11.00	39.00
IIP Total – Mean	1.94	0.56	0.43	3.13
IIP Aggression	1.35	1.00	0.00	3.86
IIP Ambivalence	1.16	0.79	0.20	3.40
IIP Lack of sociability	2.23	1.00	0.00	3.89
IIP Need for social approval	2.58	0.81	0.44	3.89
IIP Sensitivity	2.24	0.69	0.64	3.91
PAIBOR Total – Sum	37.85	11.41	11.00	60.00
PAIBOR Chronic Emptiness	11.67	3.36	3.00	18.00
PAIBOR Impulsivity	3.83	0.60	2.25	5.20
PAIBOR Mood Instability	7.38	2.86	1.00	12.00
PAIBOR Negative Relations	6.05	3.02	1.00	12.00
PAIBOR Reckless Spending	2.79	2.15	0.00	6.00
PAIBOR Separation Concerns	5.11	2.27	0.00	9.00

Descriptive Statistics of self-report and coding data

							S	tudy Session	a Time-point	5						
		А	1			А	2			A	ദ			А	4	
	М	SD	Min	Max	M	SD	Min	Max	М	SD	Min	Max	М	SD	Min	Max
Self-Reports																
BAI	13.74	10.06	0_00	51.00	13_12	9_28	0_00	38.00	13.22	9_72	0_00	46.00	13.64	12.12	0_00	53.00
BDI	18.66	11.81	1.00	46.00	17_28	11.79	1.00	46.00	16.21	11_54	0_00	46.00	<b>16_4</b> 5	13.35	0.00	47.00
CALPAS-C	5_91	0.58	3.88	<b>6</b> .75	5_96	0_78	3.54	6.88	5_91	0_73	3_58	<b>6</b> .75	6.04	80.0	4_13	7.00
CALPAS-T	4_88	0_72	3.00	6.29	5.09	0_72	3.38	6_33	5.04	0_82	2.54	6.63	5.28	0.85	2.91	6.78
RES	61.69	6.95	39.00	71_00	<b>61</b> _53	7.25	38.00	72.00	62.69	6_97	38.00	72.00	63_54	5 <b>.9</b> 7	41_00	72.00
SRVIS-C-Inval	2.34	2.26	0_00	9_00	1_87	2.01	0.00	10.00	1.98	2.55	0_00	10.00	1.67	2.16	0.00	8.00
SRVIS-C-Val	18_57	1.62	13.00	20.00	18_59	2.00	10.00	20.00	18.66	2.15	10.00	20.00	18_92	1.75	11.00	20.00
SRVIS-T-Inval	4_30	2.27	0.00	9.00	4_18	2.28	0.00	9.00	4_13	2.54	0_00	12.00	3.91	2.43	0.00	11.00
SRVIS-T-Val	17.40	1.78	10.00	20.00	17.60	1.28	14.00	20.00	17.52	1.62	14.00	20.00	17.47	1.74	10.00	20.00
Coder Ratings																
Observer-rated Invalidation	1_16	016	1.00	1.60	1_13	015	1.00	1.54	1_18	0_20	1.00	2.13	1.17	0.23	1.00	2.03
Observer-rated Validation	3.36	0.55	2.42	5.08	3_37	0_42	2.40	4_50	3.40	0.60	2.50	5.21	3.46	0.66	2.59	5.22

Combined Model with Interaction Effects for Concurrent and Discriminant Validity of Observer-rated Validation

Effect	В	SE	df	t	р
Intercept	3.20	0.10	19.20	32.49	<.001
Clinic	0.52	0.20	13.90	2.54	0.02
RES	-0.004	0.01	122.00	-0.29	0.77
SRVIS-C-Inval	-0.03	0.03	139.00	-1.11	0.27
SRVIS-C-Val	0.05	0.04	139.00	1.14	0.26
RES*Clinic	-0.02	0.02	135.00	-0.81	0.42
SRVIS-C-Inval*Clinic	0.13	0.05	115.00	2.88	< .01
SRVIS-C-Val*Clinic	0.05	0.07	136.00	0.68	0.50

Table	4
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Combined Model of Concurrent Validity of Observer-rated Invalidation

Effect	В	SE	df	t	р
Intercept	1.15	0.02	42	74.51	<.001
SRVIS-C-Val	-0.04	0.01	136	-3.03	<.01
SRVIS-C-Inval	0.00	0.008	138	0.12	0.91
CALPAS-C	0.13	0.04	108	3.54	<.001
CALPAS-T	-0.04	0.02	99.6	-2.23	0.03
RES	-0.007	0.004	121	-1.77	0.08

Client Characteristics as Predictors of Observer-rated Validation: Subscales

Effect	В	SE	df	t	р
Intercept	3.32	0.07	24	46.83	<.001
DERS-Goals	0.02	0.01	58.6	1.90	0.06
DERS-strategies	0.006	0.01	56.8	-0.62	0.54
IIP-Lack sociability	0.11	0.06	54.5	1.80	0.08
PAI-BOR-Mood	0.03	0.02	50.8	1.34	0.19
PAI-BOR-Emptiness	0.01	0.02	58.7	0.43	0.67

Interactions					
Effect	В	SE	df	t	р
Intercept	3.26	0.07	33.1	46.01	<.001
Clinic	0.48	0.13	44.8	3.54	<.001
AIM-Total	0.02	0.12	64.4	0.21	0.84
DERS-Goals	0.03	0.01	63.1	1.92	0.06
DERS-Impulse	0.01	0.02	54.6	0.74	0.46
DERS-Strategies	-0.01	0.01	59.2	-0.65	0.52
IIP-Sociability	0.14	0.06	59.1	2.26	0.03
PAI-BOR-Emptiness	-0.02	0.02	62.1	-0.76	0.45
PAI-BOR-Mood	0.02	0.03	53.7	0.87	0.39
PAI-BOR-Neg Relations	0.02	0.02	55.5	0.69	0.49
AIM-Total*Clinic	-0.16	0.19	60.2	-0.83	0.41
DERS-Goals*Clinic	-0.03	0.03	60.8	-0.98	0.33
DERS-Impulse*Clinic	-0.02	0.02	51.5	-0.77	0.45
PAI-BOR-Neg Relations*Clinic	-0.06	0.04	43.5	-1.49	0.14

Client Characteristics as Predictors of Observer-Rated Validation: Main effects and Interactions

Means and *SD*s of Clients' Raw Observer-rated Process Measure and Clientreported Symptom Scores at Study Time-points

	Assessments							
	1	2	3	4				
	<i>n</i> = 47	<i>n</i> = 49	n = 50	n = 40				
Validation	3.35 (.58)	3.38 (.44)	3.41 (.61)	3.48 (.67)				
Invalidation	1.15 (.15)	1.13 (.16)	1.17 (.19)	1.16 (.20)				
BDI-II	17.51 (11.87)	15.85 (11.13)	14.47 (11.16)	14.67 (12.74)				
BAI	12.27 (8.47)	11.78 (7.62)	11.84 (8.07)	11.00 (9.00)				

Descriptive statistics: Means and *SD*s of the Observer-rated Within- and Betweenclient Process Scores.

	Between-client scores	Within-cli	ent scores
	M (SD)	M (average SD)	Range of SD
Validation	3.39 (.48)	0 (.23)	.0255
Invalidation	1.15 (.11)	0 (.11)	.0050

Note: For the *SD of* within-client scores, the *SD* for each client was calculated and then averaged. The range of *SDs* reflects the range of *SDs* across clients.

Combined Models of Within-client Validation and Invalidation as Predictors of Depressive Symptom Change

Effect	В	SE	df	t	р			
Model 1 – with Clinic Interaction								
Intercept	0.37	0.84	45	0.44	0.66			
BDI_prior	0.82	0.05	45	16.53	<.001			
Clinic	4.59	1.18	45	3.90	<.001			
Validation-within	-0.35	0.61	45	-0.56	0.58			
Invalidation-within	0.65	0.43	45	1.53	0.13			
Validation-within*Clinic	2.33	0.88	45	2.65	0.01			
Model 2 – without Clinic Interacti	on							
Intercept	0.43	0.86	45	0.50	0.62			
BDI_prior	0.81	0.05	45	15.89	<.001			
Clinic	4.93	1.21	45	4.09	<.001			
Validation-within	0.86	0.43	45	1.98	0.054			
Invalidation-within	1.07	0.42	45	2.57	0.01			

Appendix B. Figures



Figure 1. BDI-II Scores across Study Time-points by Clinic



Figure 2. BAI Scores across Study Time-points by Clinic

Figure 3. Interaction of Clinic with Within-client Validation Scores Predicting BDI-II Scores



HLM 2-Way Interaction Plot

X1 = Observer-rated Within-client Validation scores

#### X2 = Clinic

1 = non-DBT; BDI = .54 + -.69\*x1; p = .91 2 = DBT; BDI = 4.74 + 2.14\*x1; p = .82

Y = BDI-II scores

Figure 4. Combined Model: Interaction of Clinic with Within-client Validation Scores Predicting BDI-II scores



HLM 2-Way Interaction Plot

X1 = Observer-rated Within-client Validation scores

X2 = Clinic

1 = non-DBT; BDI = .37 + -.35\*x1; *p* = .96 2 = DBT; BDI = 4.96 + 1.98\*x1; *p* = .85

Y = BDI-II scores

Appendix C. Study Forms

# Mood and Personality Studies

-Validation and Invalidation Coding Manual-
# Summary of Levels of Validation and Invalidation

# VALIDATION

Level 1:	Attentive Listening
Level 2:	Acknowledging/ Reflecting/ Functionally Responding
Level 3:	Clarifying/Therapeutic Mind Read
Level 4:	Recontextualizing (makes sense given situation)
Level 5:	Normalizing (makes sense at any time)
Level 6:	Radical Genuineness
Level 7:	Reciprocal Vulnerability (other-focused)

# INVALIDATION

Level 1:	Inattention
Level 2:	Missed Opportunities/Functional Unresponsiveness
Level 3:	Insisting, "Teachy," Judgmental Spin
Level 4:	Increasing Negative Emotion, Judgments (that 个 NA),
	"Kicking the person when down"
Level 5:	Pathologizing
Level 6:	Attacking/ Fragilizing/ Serious Missed Opportunity
Level 7:	"Leaving the client hanging out to dry"/ assuming more
	powerful position

# **General Guidelines for Coding**

- In most cases, base your rating on how the *typical person* would react in response to the therapist, unless:
- If an obvious, visible/verbal response is made by the client, you should rate based upon their reaction.
- Start with the category (low, medium, or high), then assign a numerical rating (1-7).

- If trying to decide between two quality/severity ratings, go with the more extreme.

- In order to get a high global score, you need to get at least one Validation/Invalidation at levels 4, 5, 6 or 7.
- Determine ratings based upon FUNCTION, not CONTENT or INTENT.
- Be sure to assign ratings for entire 10-minute segment, not just the last few minutes.
- Rate the 10 minute chunk no matter what (even if in middle of statement). Don't include comments begun but not completed (but also don't code invalidation for not responding, etc.)
- -Rate based upon the presence/absence of the behaviors; did it occur or not?
- -If on the border between segments, omit and do not rate partial or unclear statements/ interactions.

# VALIDATION

### Validation- Level 1: Attentive Listening

Record a V1 if:

- Therapist is listening well to client's responses

- Therapist appears interested in what the client has to say

- Body turned toward client, open posture, leaning forward, eye contact

- Nodding head, "mmm-hmms/yeps/yeahs/sure" (an appropriate amount) to indicate that therapist is following client

#### Validation- Level 2: Acknowledging/ Reflecting/ Functionally Responding

Record a V2 if:

- Therapist re-states or acknowledges client's important thoughts, assumptions, interpretations, action urges, feelings, or emotions
- Such reflections demonstrate understanding of the client's perspective and tracking of the conversation
- Therapist observes, comments upon client's non-verbals (facial expression, body language, posture) e.g. I noticed your facial expression there. You just laughed when you said that.
- Reflections are accurate (not changing the content of the client's message; use client's response to determine accuracy)
- Therapist correctly labels primary emotions (when non-verbal but obvious e.g. smiling
- "It clearly made you happy")

- Therapist distinguishes appraisals from facts, emotions from thoughts (e.g. The client says "I'm such an idiot" and the therapist says "So you had that thought")

- Responding directly, entering problem-solving mode (when appropriate; e.g. acknowledgment and reflection *with* problem solving for problem that needs to be solved right now such as failing to do homework)

Note: Problem is client-generated

# Validation- Level 3: Clarifying/Therapeutic Mind Read

Record a V3 if:

-Therapist is asking questions, working to understand client's experience

-Therapist accurately reads unarticulated emotions or thoughts

- "Reaches" beyond what has been indicated previously (verbally or non-verbally) Note: Do *not* code as V3 if obvious

-Therapist asks about shifts in client's affect (facial expression, body language, posture)

- Mindreading must be accurate, as indicated by client's reactions
- Adds something new, clarifies what was said, expands upon what was said
- Profound or unique to that particular client's situation

- Asking questions that demonstrate therapist's desire to truly understand client's worldview

-Accurately guessing the client's wants, feelings, or thoughts in an empathic, noninsisting way

Note: Needs to be behaviorally specific. Do **not** code response as validating if it does not get at behaviorally specific emotion/feeling. E.g. Was that overwhelming for you?...uncomfortable, good, bad, etc. (not a V3 because **not** behaviorally specific). V3 could be "How did that feel for you?", "Tell me more about it" OR "I can imagine that made you feel anxious. Is that right?"

# Validation- Level 4: Recontextualizing (makes sense given the situation)

Record a V4 if:

- Therapist indicates that client's actions/thoughts/emotions make sense given the client's particular situation
- Can validate based upon: client's own history (inc. learning), the illness (psychological, biological or genetic)
- What has occurred is a natural consequence of the events that preceded it
- Therapist reduces negative emotion by putting a positive spin on the situation

# Validation- Level 5: Normalizing (makes sense at any time/ for anyone)

Record a V5 if:

- Therapist indicates that client's responses would make sense for everyone/at any time/ in that particular situation ("anyone would...")
- Emphasizing the "of-courseness" or reasonableness of their

thoughts/emotions/actions

- Exclamations of unconditional understanding- "Of course!" "Absolutely!"
- Can validate aspects of behaviors that have desirable short-term consequences but undesirable long-term consequences ("yes-buts." Point out okay aspects, then highlight the long-term negative outcomes

## Validation- Level 6: Radical Genuineness

Record a V6 if:

- Taking the client seriously; treating the client as equal and this comes across as authentic

- Therapist treats the client in a natural, engaged manner, as if they were a friend
- Behaving as if they truly believe the client has the capacity to change
- Therapist lets their own personality shine through, rather than playing a role
- Cheering on the client in a genuine manner ("I knew you could do it!")
- Indicating confidence in ability of their collaboration to achieve the goals
- Sharing their own thoughts and emotions with the client, when appropriate
- Invalidating the truly invalid and it is accomplished with client agreement
- Therapist stays with/explores the client's valid negative emotion, communicating that he/she is not fragile, but competent

Note: Although there are different styles of radical genuineness, it should be easily detectable.

# Validation – Level 7: Reciprocal Vulnerability

- Communicating how much the client is valued/cared for by matching the client's level of vulnerability

- Can include confiding or disclosing one's thoughts, feelings and desires in the context of client's vulnerability (other-focused)

- "Me too" responses made in way that therapist is made vulnerable e.g. Client says "This destroyed me" and therapist replied "Me too."

Note: Therapist needs to make herself vulnerable.

# **INVALIDATION**

#### **Invalidation- Level 1: Inattention**

Record an IV1 if:

- Therapist appears not to be paying much attention to the client
- Body turned away, arms crossed, leaning back too much, little eye contact
- Looking excessively at clock, notes, floor, window, etc.
- Appearing bored, fidgety, restless, uninterested, distracted
- Over-uses minimal encouragers ("mmm-hmms, yeps, yeahs")
- Asks questions that show Therapist was not paying attention
- Interrupting, changing the subject (in abrupt and unhelpful way)
- Appearing to be "half-listening," waiting to make his/her point
- Therapist is doing nearly all of the talking (i.e. more than 75%)

# Invalidation- Level 2: Missed Opportunities to Reflect/Functional Unresponsiveness

Record an IV2 if:

- Therapist misses important opportunities to reflect, respond in helpful way
- Reflections are 100% "parroting" and it's obvious more could be said
- Therapist is doing all the talking (i.e. 95%)
- Therapist never reflects or reflects so much it hinders treatment
- Making an inaccurate reflection, with no attempt to revise and understand
- Attempting to reflect and *really* missing the mark

## Invalidation- Level 3: Insisting, "Teachy," Judgmental Spin

Record an IV3 if:

- Therapist insists upon their interpretations of a situation/plan for action
- Sticking to agenda without checking in
- Missed opportunity to notice shifts in affect
- Tells the client what they should want, how they should be feeling
- Problem-solving without problem assessment
- Therapist appears to negatively judge a client's actions, thoughts, emotions, etc.
- Client disagrees with therapist's mindread, and therapist insists upon it
- Sticking to/pressing therapy agenda or technique, at expense of client
- Sarcastic, critical, or irritated statements

#### **Invalidation- Level 4: Increasing Negative Emotion**

Record an IV4 if:

- Agreeing with client's self-invalidation
- Increasing the client's existing negative emotion rather than working to reduce it
- "Kicking the client when down"
- Judging the client in ways that increase negative emotion (eg. "It seems pretty conceited to think of it that way.")

## Invalidation- Level 5: Pathologizing

Record an IV5 if:

- Criticizing/pathologizing client's valid public or private behaviors
- Making a big deal out of small occurrences (insisting something's wrong when client says otherwise)
- "Gaslighting:" Treating the client as if they are over-reacting for raising a concern, rather than acknowledging one's own therapy-interfering behaviors

# Invalidation- Level 6: Attacking/ Fragilizing/ <u>Serious</u> Missed Opportunity/Distancing

Record an IV6 if:

- Therapist appears phony or standoffish
- Therapist is patronizing or condescending
- Maintaining an overly professional reserve (hiding behind the therapist role) and creating distance between therapist and client
- Genuine but in a mean-spirited way (condescending, harsh, cruel)
- Therapist validates the invalid
- Overly sweet (treating as fragile, in need of protection from negative emotion)
- Extreme instances of missed opportunities to validate client's valid behaviors/emotions/thoughts (*painfully long silences or no response* from the therapist which appears to leave the client feeling alone, misunderstood, or overly vulnerable)

## Invalidation – Level 7: Leaving the other hanging out to dry

Record an IV 7 if:

- Therapist leaves the client hanging out to dry by assuming a more powerful position
- Instances of a "power-play" by the therapist: using their position against the client
- Therapist is unresponsive to vulnerable self-disclosures of the client

# **Therapist Ratings**

Each therapist will also receive a score, using a 1-7 scale for likeability. Therapists will receive an overall rating for each session. A description of this rating is below.

#### Likeability (rated on 1-7 scale)

The degree to which the therapist would be perceived as likeable within the general social context.

**Low** - Not likeable. You do not want to spend time with the therapist or get to know her better.

Medium - Somewhat likeable. Feel lukewarm about this therapist.

**High** – Highly likeable. You feel like you want to get to know this person better.

# **Client Ratings**

Each client will also receive a score, using a 1-7 scale for engagement, likeability, distress, and intensity of topics. Clients will receive an overall rating for each session. A description of each of these ratings is below.

#### Engagement (rated on 1-7 scale)

The degree to which the client is interested and following along. How active/invested the client is in the session.

**Low** – Lack of engagement.

Medium – Moderately engaged.

High – Highly engaged.

#### Likeability (rated on 1-7 scale)

The degree to which the client would be perceived as likeable within the general social context.

**Low** - Not likeable. You do not want to spend time with the client or get to know her better.

Medium - Somewhat likeable. Feel lukewarm about this client.

**High** – Highly likeable.. You feel like you want to get to know this person better.

#### Distress (rated on 1-7 scale)

Emotional reactions/state during the session (<u>regardless</u> of situation's objective severity). How *upset* is the client during the session?

Low – Not distressed.

Medium - Mild to moderate distress.

High – Highly distressed.

#### Severity (rated on 1-7 scale)

Gravity of the client's situation/ circumstances being addressed in-session, relative to the norms of the general social context. (i.e. How bad would this be to most people?)

Low – Not severe. Common, low-grade issues.

Medium – Moderate severity. Mid-level concerns.

High – High severity. More extreme situations/circumstances.

# **DVD Ratings**

#### Audio quality: Therapist (rated on a 1-7 scale)

Sound quality of therapist's voice.

Low - Extremely poor, could not understand or did not understand major portions

Medium – Understood a good deal but with a lot of difficult

High – Understood everything said or understood everything but a few short phrase

#### Audio quality: Client (rated on a 1-7 scale)

Sound quality of client's voice.

Low - Extremely poor, could not understand or did not understand major portions

Medium – Understood a good deal but with a lot of difficult

High – Understood everything said or understood everything but a few short phrases

#### Video quality: Therapist (rated on a 1-7 scale)

How clearly the therapist (specifically her face) could be seen.

Low – Extremely poor and could not see most.

Medium – Could see therapist or client about half the time.

**High** – Could see therapist or client all of the time.

#### Video quality: Client (rated on a 1-7 scale)

How clearly the client (specifically her face) could be seen.

**Low** – Extremely poor and could not see most.

**Medium** – Could see therapist or client about half the time.

**High** – Could see therapist or client all of the time.

## VALIDATION AND INVALIDATION CODING WORKSHEET- MAPS LAB

Therapist	Occurrences/ Notes	Level	Level
Validation		Quality	Quality
		Range	(1-7)
		*code N/A	*code 0 if
		if none	none
V1: Attentive		Low	
Listening			
		Medium	
		High	
		N/A	
V2:		Low	
Acknowledging,			
Reflecting,		Modium	
Functionally		Wealdin	
Responding			
		High	
		N/A	
V3: Clarifying,		Low	
Mindreading,			
Asking about		Medium	
shifts in affect			
		High	
		N/A	

Therapist Validation	Occurrences/ Notes	Level Quality Range *code N/A if none	Level Quality (1-7) *code 0 if none
Recontextualizing (given client's particular situation)		Medium High N/A	
V5: Normalizing (at any time/ for anyone)		Low Medium High N/A	
V6: Radical Genuineness (cheerleading, treating as capable); Invalidating the invalid		Low Medium High N/A	
V7: Reciprocal Vulnerability (other-focused); "me too" responses		Low Medium High N/A	

Therapist Invalidation	Occurrences/ Notes	Level Severity	Level Severity
		Range	(1-7)
		*code N/A	*code 0 if
N/1: Inattention		If none	none
TV1. mattention		Medium	
		High	
		N/A	
IV2: Missed Opportunities to reflect,		Low Medium	
Unresponsiveness		High	
		N/A	
		Low	
("teachy," agenda/technique > client), judgmental spin;		Medium	
Missed opportunity to ask about shifts in		High N/A	
affect			

Therapist	Occurrences/ Notes	Level	Level
Invalidation		Severity	Severity
		Range	(1-7)
		*code N/A	*code 0
		if none	if none
IV4: Increasing		Low	
Negative			
Emotion; "Kicking		Medium	
down"			
down		High	
		N/A	
IV5:		Low	
Pathologizing;			
Gaslighting		Medium	
		High	
		ingn	
		N/A	
IV6: Extreme		low	
missed			
opportunity:			
Attacking;		Medium	
Fragilizing;			
Distancing		High	
		N/A	
N/7: Not			
responding		2011	
to/validating			
vulnerable self-		Medium	
disclosures –			
"Hanging out to		High	
dry", Assuming			
more powerful		N/A	
position			

Global Validation Quality Ratings									
		Low		Medi	um		High		
Segment 1 (00:00 - 10:00)	1	2	3	4	5	6	7	N/A	
Segment 2 (10:00 - 20:00)	1	2	3	4	5	6	7	N/A	
Segment 3 (20:00 - 30:00)	1	2	3	4	5	6	7	N/A	
Segment 4 (30:00 - 40:00)	1	2	3	4	5	6	7	N/A	
Segment 5 (40:00 - 50:00)	1	2	3	4	5	6	7	N/A	
Segment 6 (50:00 – 1:00:00)	1	2	3	4	5	6	7	N/A	
Segment 7 (1:00:00 – 1:10:00)	1	2	3	4	5	6	7	N/A	
Segment 8 (1:10:00 – 1:20:00)	1	2	3	4	5	6	7	N/A	
Segment 9 (1:20:00 – 1:30:00)	1	2	3	4	5	6	7	N/A	
Segment 10 (1:30:00 - 1:40:00)	1	2	3	4	5	6	7	N/A	
Segment 11 (1:40:00 - 1:50:00)	1	2	3	4	5	6	7	N/A	
Segment 12 (1:50:00 – 2:00:00)	1	2	3	4	5	6	7	N/A	
Overall Rating	1	2	3	4	5	6	7		

\*Note: For global validation and invalidation ratings, 1 = "absence of" and 7 = "extreme"

Global Invalidation Severity Ratings								
		Low		Medi	um		High	
Segment 1 (00:00 - 10:00)	1	2	3	4	5	6	7	N/A
Segment 2 (10:00 - 20:00)	1	2	3	4	5	6	7	N/A
Segment 3 (20:00 - 30:00)	1	2	3	4	5	6	7	N/A
Segment 4 (30:00 - 40:00)	1	2	3	4	5	6	7	N/A
Segment 5 (40:00 - 50:00)	1	2	3	4	5	6	7	N/A
Segment 6 (50:00 – 1:00:00)	1	2	3	4	5	6	7	N/A
Segment 7 (1:00:00 – 1:10:00)	1	2	3	4	5	6	7	N/A
Segment 8 (1:10:00 – 1:20:00)	1	2	3	4	5	6	7	N/A
Segment 9 (1:20:00 – 1:30:00)	1	2	3	4	5	6	7	N/A
Segment 10 (1:30:00 - 1:40:00)	1	2	3	4	5	6	7	N/A
Segment 11 (1:40:00 – 1:50:00)	1	2	3	4	5	6	7	N/A
Segment 12 (1:50:00 – 2:00:00)	1	2	3	4	5	6	7	N/A
Overall Rating	1	2	3	4	5	6	7	

Therapist Ratings							
	Low Medium				High		
Likeability	1	2	3	4	5	6	7

Client Ratings									
	Low Medium					High			
Engagement	1	2	3	4	5	6	7		
Likeability	1	2	3	4	5	6	7		
Distress	1	2	3	4	5	6	7		
Severity	1	2	3	4	5	6	7		

#### **DVD Ratings**

#### Please circle your response to the following questions. Circle N/A for part b if not applicable.

#### 1. Audio Quality:

Therapist: What was the sound quality of the therapist's voice?		
a. Could you understand the therapist at least 75% of the time?	No	Yes
b. If not, what percentage of the time could you understand the thera	apist?	
N/A		

<u>Client</u>: What was the sound quality of the client's voice? a. Could you understand the client at least 75% of the time? No Yes b. If not, what percentage of the time could you understand the therapist? \_\_\_\_\_\_ N/A

#### 2. Video Quality:

<u>Therapist</u>: How clearly could the therapist (and specifically his or her face) be seen?

- a. Could you see the therapist (specifically his or her face) at least 75% of the time? No Yes
- b. If not, what percentage of the time could you see the therapist? \_\_\_\_\_ N/A

<u>Client</u>: How clearly could the client (and specifically his or her face) be seen? a. Could you see the client (specifically his or her face) at least 75% of the time? No Yes

b. If not, what percentage of the time could you see the client? N/A

# Self-Reported Validation Invalidation Scale - Client (SRVIS-C)

Please rate the following ten statements using the scale below:

- 0 Never 1 – Rarely 2 – Sometimes 3 – Often 4 – Almost Always/Always
- 1) Was your therapist paying attention to you?
- 2) Did your therapist increase your negative feelings?
- \_\_\_\_\_3) Did your therapist see your responses as abnormal or inaccurate?
- 4) Did your therapist tell you what you should think or feel?
- \_\_\_\_\_5) Was your therapist interested in what you had to say?
- \_\_\_\_\_ 6) Did your therapist take your responses seriously?
- \_\_\_\_\_7) Was your therapist condescending or contemptuous toward you?
- 8) How much of the time did you feel understood by your therapist?
- 9) Was your therapist responsive to your emotions?

\_\_\_\_/ \_\_\_\_

10) Did your therapist see you as more fragile than you really are?

113

# Self-Reported Validation Invalidation Scale - Therapist (SRVIS-T)

0 – Never 1 – Rarely 2 – Sometimes 3 – Often 4 – Almost Always/Always

Please rate the following ten statements using the scale below, regarding your most recent therapy session with this client.

- 1) Were you paying attention to your client?
- \_\_\_\_\_2) Did you increase your client's negative feelings?
- \_\_\_\_\_3) Did you see your client's responses as abnormal or inaccurate?
- 4) Did you tell your client what they should think or feel?
- 5) Were you interested in what your client had to say?
- \_\_\_\_\_\_6) Did you take your client's responses seriously?
- \_\_\_\_\_7) Were you condescending or contemptuous toward your client?
- 8) How much of the time did you understand your client?
- \_\_\_\_\_9) Were you responsive to your client's emotions?
- 10) Did you see your client as more fragile than they really are?

\_\_\_\_\_/ \_\_\_\_\_