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**UNRESOLVED ATTACHMENT AND ALLIANCE IN THREE**

**TREATMENTS FOR BORDERLINE PERSONALITY DISORDER**

A Thesis in

Psychology

by

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# ABSTRACT

Therapeutic alliance is an important predictor of outcome in psychotherapy (Castonguay et al., 2006; Martin et al., 2000). However, patient differences in capacity to form an alliance likely influence this relationship between alliance and outcome (Clarkin & Levy, 2003). Levy and colleagues (2011) found that attachment security predicts better outcome. In a follow-up meta-analysis, they found that self-reported insecure attachment predicted poorer alliance (Bernecker et al., 2014). However, few studies have examined the role of unresolved attachment organization in predicting alliance and outcome in psychotherapy. Unresolved attachment organization, which indicates the presence of unresolved loss or trauma, has been associated with higher rates of psychopathology and other negative outcomes (Riggs et al., 2007), and may predict difficulty effectively engaging in treatment (Korfmacher et al., 1997). In the present study we examine how unresolved attachment impacts early alliance in three treatments for BPD. Ninety patients from a randomized controlled trial (RCT) comparing transference-focused psychotherapy (TFP), dialectical behavior therapy (DBT), and supportive psychotherapy (SPT) (Clarkin et al., 2007) were assessed for attachment organization using the Adult Attachment Interview (AAI). Patients were classified as unresolved with regard to loss or trauma if they exhibited disorganization, dissociation or lapses in monitoring their speech or reasoning when discussing past trauma and/or losses during the AAI. For each patient, three early sessions were coded for alliance by trained raters with the Working Alliance Inventory (WAI): two at about one month into treatment, and a third about three months into treatment. Ratings from the first two sessions were averaged into a single time point in order to control for any discrepancy resulting from a focus on setting the therapeutic frame. A two-way (unresolved organization x treatment group) ANOVA was used in order to assess whether there is any interaction between unresolved attachment organization and treatment orientation in predicting the quality of the therapeutic alliance. The main effects of

treatment and unresolved attachment on alliance were nonsignificant at both time points. At the

first time point, there was a significant interaction between unresolved attachment and treatment

group. There was also a trend-level interaction between these variables at the second time point.

Findings from this study could potentially have both prognostic implications regarding the risk

presented by unresolved attachment and prescriptive value for patient treatment matching to

enhance alliance for those with unresolved trauma or loss.

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# Chapter 1

# Background

According to Bordin's (1979; 1994) trans-theoretical model, the therapeutic alliance is comprised of three main components: bond, the mutual liking, trust and respect between patient and therapist; goal, the agreement about the goals of therapy; and task, the agreement about the tasks used in therapy to work toward those goals. Alliance is one of the most commonly studied variables in psychotherapy research (Castonguay, Constantino, & Grosse Holtforth, 2006), likely because a stronger alliance has been associated with better outcome across a range of diagnoses and treatments (Horvath, Del Re, Flückiger, and Symonds, 2011) and has been described as an important common factor in psychotherapy (Castonguay & Beutler, 2006).

Patients likely differ in their ability to establish an effective alliance with a therapist (Clarkin & Levy, 2003). Because of the interpersonal nature of the therapeutic alliance, some clinical writers and researchers have hypothesized that the patient's interpersonal functioning may relate to the therapeutic alliance (e.g., Farber, Lippert, & Nevas, 1995; Levy, 2005; Piper et al., 1991). One patient variable associated with interpersonal functioning that may influence the ability to form an alliance is attachment organization; meta-analytic studies have found that greater security of attachment is associated with better alliance (Bernecker, Levy, & Ellison, 2014; Diener & Monroe, 2011). Attachment organization concerns an individual's characteristic way of thinking about self and other in close relationships, influences both interpersonal functioning and adjustment (Bowlby, 1973; 1977), and tends to be relatively stable over the lifespan (Waters, Merrick, Treboux, Crowell, & Albersheim, 2000; Weinfeld, Sroufe, & Egeland, 2000).

The relationship between attachment organization and therapeutic alliance is especially relevant to the treatment of BPD, given the nature of the disorder and the difficulties associated

with its treatment. BPD is a highly prevalent and debilitating disorder characterized by chronic disruptions in self-concept, affect regulation, and interpersonal functioning (APA, 2013), and has consistently been associated with high rates of attachment insecurity (Levy, 2005). Furthermore, the characteristics of the disorder, including stormy interpersonal relationships and intense anger, likely contribute to the challenges involved in developing a solid therapeutic alliance with BPD patients noted by a number of clinical writers (Adler, 1985; Gunderson, 1984; Kernberg, 1984; Linehan, 1993; Masterson, 1978). The current study aims to examine the relationship between attachment organization and therapeutic alliance, and whether this relationship differs according to treatment modality, in the context of treatment for BPD.

## Borderline Personality Disorder

BPD is a disorder characterized by chronic interpersonal difficulties, impulsivity, and affective instability (APA, 2013). The interpersonal difficulties typical of BPD include splitting (rapid shifts between highly positive and highly negative views of significant others), intense anger, frantic efforts to avoid abandonment, and unstable, intense and stormy relationships. The impulsivity associated with BPD can manifest in potentially harmful behaviors such as substance abuse or gambling. BPD is also associated with non-suicidal self-injury (Clarkin et al., 1983) and suicidality (Paris, 2005). The rate of completed suicide among individuals with BPD is estimated as being between 3 and 10% (Pompili et al., 2005), making BPD a potentially lethal disorder. Additionally, BPD is associated with functional impairment, such as missed work, hospitalizations, and poor quality of life (Asnaani et al., 2007), as well as a greater frequency of negative life events (Gleason, Powers, & Oltmanns, 2012). Even subthreshold levels of BPD symptoms appear to be related to functional impairment (Zimmerman, Chelminski, Young, Dalrymple, & Martinez, 2012).  BPD is therefore a highly debilitating disorder.

The prevalence of BPD is estimated at approximately 1-6% in the general population (Grant et al., 2008; Lenzenweger et al., 2007; Zanarini et al., 2011), 10-23% among psychiatric

outpatients (Korzekwa, Dell, Links, Thabane, & Webb, 2008; Zimmerman et al., 2005; Magnavita, Levy, Critchfield, & Lebow, 2010), 20-25% among psychiatric inpatients (Oldham et al., 1995; Zanarini et al., 2004), and 6-18% among primary care patients (Gross et al., 2002; Sansone, Whitecar, Meier, & Murray, 2001). BPD can therefore be considered to be highly prevalent, particularly in mental health care settings.

In addition to being highly prevalent, BPD is highly comorbid with Axis I disorders. In particular, BPD is frequently comorbid with mood disorders, anxiety disorders, post-traumatic stress disorder, eating disorders, and substance use disorders (Zanarini et al., 2004); it is therefore comorbid with both internalizing and externalizing disorders. This high rate of comorbidity has important implications for the treatment of Axis I disorders in patients with BPD. When BPD is present in addition to Axis I disorders, it typically predicts a poorer prognosis (Skodol et al., 2002); this has been found to be the case with depression (Ilardi et al., 1997; Sullivan et al., 1994), panic disorder (Noyes et al., 1990), eating disorders (Gartner et al., 1989), obsessive-compulsive disorder (Baer et al., 1992), and alcohol abuse (Verheul et al., 1998). Conversely, the presence of Axis I disorders does not influence the course of BPD; Gunderson and colleagues (2004) found that improvements in BPD symptoms predicted improvements in major depression, but improvements in major depression did not predict improvements in BPD symptoms. Similarly, while patients with both bipolar disorder and BPD differ from those with only bipolar disorder (George, Miklowitz, Richards, Simoneau, & Taylor, 2003), the presence of bipolar disorder does not influence the course of BPD (Gunderson et al., 2006). Given the chronic and pervasive nature of BPD symptoms, the potential for lethality, high rates of prevalence in community and clinical samples, the comorbidity with Axis I disorders and the implications of that comorbidity, BPD represents an important public health issue.

A number of efficacious treatments exist for BPD, notably transference-focused psychotherapy (TFP; Clarkin et al., 2006), dialectical behavior therapy (DBT; Linehan, 1993),

schema-focused therapy (SFT; Young et al., 2006), and mentalization-based treatment (MBT;

Bateman & Fonagy, 2004). Other treatments that have shown efficacy include Systems Training

for Emotional Predictability and Problem Solving (STEPPS; Blum et al., 2002) and Dynamic

Deconstructive Psychotherapy (DDP; Gregory et al., 2008). However, these treatments are not

efficacious for all BPD patients with many studies demonstrating a response rate of only 50% of

patients (Bateman & Fonagy, 2008; Bohus et al., 2000; Linehan, Armstrong, Suarez, Allmon, &

Heard, 1991; Linehan, Kanter, & Comtois, 1999), suggesting that about half of all patients may

not recover after a course of therapy. Furthermore, for patients who respond to treatment, the

response is often a transient and partial one that does not result in improvements in overall quality

of life or functioning (Levy, 2008). Effect sizes for the treatment of BPD tend to be small to

moderate; in a meta-analysis, Levy and colleagues (2012) found a mean effect size of .24.

Furthermore, there are high rates of dropout in this population. McMurran and colleagues (2010)

found a median non-completion rate of 32% across 13 studies of BPD treatment. By comparison,

in a meta-analysis of 669 studies including a range of treatments and diagnoses, Swift and

Greenberg (2012) found a mean non-completion rate of 19.7% for psychotherapy in general.

They also found that personality disorder diagnoses were associated with a higher rate of dropout.

Accordingly, while efficacious treatments for BPD are available, they do not have a full effect on

all patients, and many patients may drop out of treatment before they can benefit from it.

**Therapeutic Alliance**

The therapeutic alliance is one of the most commonly studied variables in psychotherapy

research (Castonguay, Constantino, & Grosse Holtforth, 2006). The idea that the formation of a

positive working relationship between patient and therapist would promote better outcomes

originated in Freud's early writings about the importance of patients forming positive attachments

toward their therapists (Freud, 1958). Bordin (1979) argued that this psychoanalytic concept of

the working alliance could be generalized to all modalities of psychotherapy, and developed a

trans-theoretical model of the alliance. This model represents one of the most commonly used views of the alliance in recent research. According to Bordin's (1979) model, the alliance can be understood as being comprised of three main components: bond, goal, and task. The bond component is characterized by mutual liking, respect, and trust between therapist and patient, and grows out of the shared activity of therapy. The goal component involves an agreement between patient and therapist on the goals of therapy, and on the importance of those goals. The task component involves an agreement between patient and therapist on the tasks involved in therapy that are designed to facilitate the attainment of those goals.

Consistent with the idea that it is important for patients to form a positive attachment toward their therapist (Freud, 1958), the therapeutic alliance has been described as an important common factor in predicting outcome (Castonguay & Beutler, 2006). Supporting this, a number of meta-analyses have shown that more positive therapeutic alliance has been shown to modestly but consistently predict better outcomes across a variety of diagnoses and treatments. Meta-analyses examining the relationship between alliance and outcome have found effect sizes ranging between .22 and .27 (Horvath et al., 2011; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Consistent with the idea that a stronger alliance predicts better outcome, in a large mixed-diagnosis sample from a number of independent practice settings, Castonguay and colleagues (2010) found that therapeutic events related to the alliance were often rated by both patients and therapists as being either helping or hindering events (depending on the event's impact on the alliance) in psychotherapy. However, there is some evidence that the exact relationship between alliance and outcome may differ based on treatment modality (Ulvenes et al., 2012). This may imply that, although alliance is a common factor in the sense that it is important across treatment modalities, the way in which it is important may differ based on treatment modality.

Not only is a strong therapeutic alliance associated with better outcome, but a poor working alliance predicts a greater dropout risk. In a study of patients with mixed diagnoses randomly assigned to different treatments (psychodynamic, cognitive-behavioral, supportive, or interpersonal-experiential), therapists rated the alliance as being poorer in the dropout group as compared with completers who had a good outcome, while patients in the dropout group rated the alliance as being poorer than those in the completer groups, regardless of outcome (Samstag, Batchelder, Muran, Safran, & Winston, 1998). In a study of college students presenting with personal concerns, Tryon and Kane (1995) found that weaker ratings of the alliance by both therapists and patients predicted unilateral termination by the patient. These findings suggest that a stronger therapeutic alliance is associated with lower rates of dropout and a greater length of time spent in treatment, which could contribute to patients staying in treatment long enough to gain from it.

Unsurprisingly, higher levels of patient interpersonal problems predict weaker therapeutic alliance. In a study of inpatients, Dinger et al. (2009) found that severe interpersonal problems negatively impacted the alliance. In a study of patients with chronic depression, patients with an affiliative impact on the therapist reported a higher early alliance (Constantino et al., 2008). Small amounts of disaffiliative interactions were found to contribute to poorer alliance in psychodynamic psychotherapy for avoidant personality disorder (Schut et al., 2005). A lack of comfort with closeness or depending on others may also negatively impact the alliance (Byrd, Patterson, & Turchik, 2010). Furthermore, there is some evidence that the relationship between patient characteristics and alliance may be moderated by treatment type. In a study of patients with bulimia nervosa, Constantino, Arnow, Blasey, and Agras (2005) found that higher levels of self-reported interpersonal problems prior to the start of treatment predicted poorer therapeutic alliance after 12 sessions in interpersonal therapy (IPT), but not cognitive-behavioral therapy (CBT). These findings suggest that a patient's interpersonal difficulties may influence the

therapeutic relationship, leading to poorer alliance, and that treatment modality may moderate the relationship between interpersonal difficulties and alliance.

## Attachment

Attachment theory is concerned with the affective bond that emerges between child and caregiver early in development and the implications of this bond for the individual's self-concept, capacity to self-regulate, and adult relationships (Bowlby, 1973, 1977, 1980). Bowlby (1973) speculated that attachment patterns were relatively stable across the lifespan once established. For example, a child who was excessively anxious about caregivers' availability would tend to grow into an adult who worried about being abandoned by romantic partners. Bowlby (1973) hypothesized this continuity of attachment style based on the idea that early interactions with caregivers contributed to a child's "internal working models," which are similar to the concept of schemas in cognitive psychology. More specifically, these internal working models consist of schemas of the self and other in relationship that contain both cognitive and affective components and contribute to shaping future relationships.

Although John Bowlby was a psychiatrist, two research traditions within attachment theory have emerged from different fields: the first from developmental psychology, and the second from social psychology. These research traditions use different terminology and measures; the developmental psychology tradition discusses attachment in terms of organization and uses observational or interview measures (Main et al., 2008), while the social psychology tradition discusses attachment in terms of style and uses primarily self-report measures designed to assess ways of behaving in romantic relationships (Hazan & Shaver, 1987).

From a developmental psychology perspective, attachment organization in adults is assessed using interview measures. The most commonly used measure is the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). The AAI assesses attachment organization based on patterns of speech observed when an individual responds to a set series of questions

concerning his or her experiences with childhood caregivers and the influence of these experiences on his or her adult personality. There are three main AAI classifications: secure, preoccupied, and dismissing (Main et al., 2008). Secure individuals can discuss both positive and negative childhood memories coherently and openly, and appear to reflect on their thinking as they speak. Preoccupied individuals discuss childhood memories in an incoherent manner that suggests a lack of distance or perspective (for example, reversions to childlike speech or confusion regarding present and past relationships). Dismissing individuals discuss attachment relationships in either a devaluing or an idealized manner, with little use of concrete examples to support their view. In contrast to the secure, preoccupied, and dismissing classifications, which are organized classifications, the unresolved classification is considered to be disorganized (Main et al., 2008). This classification represents a lack of resolution of experiences related to loss or trauma. Unresolved individuals exhibit lapses in the monitoring of speech or reasoning while discussing potentially traumatic experiences. The manifestations and implications of the unresolved classification will be described in more detail below.

From a social psychological perspective, a number of self-report measures have been developed to assess adult attachment in terms of a pattern of behaving in romantic or other significant relationships. These measures assess attachment style using questions concerning an individual's attitudes about or behaviors in close relationships. While the first self-report measures of attachment used categories based on AAI classifications (Hazan & Shaver, 1987), dimensional measures are more commonly used in recent research. Although a number of different dimensional models have been used to assess attachment, Fraley, Waller, and Brennan (2000) found using factor analysis that orthogonal dimensions of attachment anxiety and avoidance best explained the pattern of results obtained using a wide range of self-report attachment measures. Individuals high in attachment anxiety tend to display more worry in the context of close relationships, are especially worried about being abandoned, and use emotion

regulation strategies that intensify affect, while those high in avoidance are uncomfortable with closeness, highly value their sense of independence, and use emotion regulation strategies that inhibit affect related to attachment relationships (Mikulincer & Shaver, 2007).

Regardless of how attachment is assessed, insecure attachment patterns have been associated with poorer outcomes and interpersonal functioning than secure patterns. Attachment insecurity has been associated with higher levels of psychological distress (Davila & Bradbury, 2001; Perrier, Boucher, Etchegary, Sadava, & Molnar, 2010) and increased incidence of a number of mental disorders (Dozier, Stovall-McClough, & Albus, 2008) as well as certain physical health problems (McWilliams and Bailey, 2010). Furthermore, attachment anxiety and avoidance have been associated with poorer interpersonal functioning (Bowlby, 1973; 1977; Gallo, Smith, & Ruiz, 2003). One potential explanation for these findings is that, in contrast to the way in which secure attachment allows for effective affect regulation and engagement in non-attachment-related activities, attachment anxiety contributes to hypervigilance toward cues related to attachment or threat, while avoidance contributes to distancing from such cues (Mikulincer, Shaver, & Pereg, 2003). Attachment insecurity could therefore contribute to an impaired ability to effectively invest in non-attachment-related activities and to respond to interpersonal conflict.

Given the interpersonal difficulties associated with insecure attachment, attachment insecurity may negatively impact psychotherapy process and outcome. Consistent with this idea, greater attachment security has been associated with better outcome. In a meta-analysis of 14 studies consisting of a total of 19 distinct therapy samples, Levy, Ellison, Scott and Bernecker (2011) found a correlation of .18 between attachment security and outcome. In a follow-up meta-analysis of 22 studies, Bernecker, Levy, and Ellison (2014) found a correlation of -.13 between attachment anxiety and alliance and a correlation of -.14 between avoidance and alliance. Similarly, Diener and Monroe (2011) found a correlation of .17 between attachment security and alliance in a meta-analysis of 17 separate samples. This suggests that greater security of

attachment predicts a better therapeutic alliance. Given the robust correlation between therapeutic

alliance and outcome (Horvath et al., 2011), the relationship between attachment security and

outcome may be partially mediated by the quality of the therapeutic alliance. Consistent with this,

Byrd and colleagues (2010) found that the relationship between comfort with closeness

(characteristic of secure attachment) and outcome was partially mediated by alliance in patients

presenting with depression, anxiety disorders, or personal concerns. Attachment insecurity and

associated interpersonal difficulties may also influence other aspects of psychotherapy process.

Mohr, Gelso, and Hill (2005) found that volunteer clients and therapists rated first sessions as

being less smooth when client was high in both attachment anxiety and avoidance. Combined

with findings concerning the relationship between attachment insecurity and poorer alliance, this

suggests that attachment insecurity may negatively impact multiple elements of psychotherapy

process.

**Unresolved Attachment**

On the AAI, individuals with unresolved attachment exhibit lapses in the monitoring of

reasoning or speech in discussing traumatic events such as loss or abuse (Main et al., 2008).

These lapses are thought to reflect a lack of coherence in the representation of experiences in

close relationships and intrusions from contradictory internal working models (Hesse & Main,

2000; Main & Goldwyn, 1994), which would indicate a lack of an organized attachment pattern.

This lack distinguishes unresolved attachment from the organized insecure classifications

(preoccupied and dismissing). Preoccupied or dismissing individuals display an organized or

consistent, though insecure, attachment pattern. This means that they have relatively consistent,

though representationally incoherent, internal working models and correspondingly consistent

responses to situations that activate the attachment system (such as an impending separation from

an attachment figure). By contrast, unresolved attachment is considered disorganized because of

the presence of moments in which these lapses and interferences from contradictory internal

working models disrupt an otherwise organized pattern of behavioral responses to activation of the attachment system. Unresolved attachment is believed to be associated with lapses into dissociated or compartmentalized states of mind both when discussing traumatic experiences during the AAI (Main et al., 2008) and outside of the context of the AAI (Lyons-Ruth et al., 1999).

Consistent with this idea, unresolved attachment is associated with higher rates of psychopathology. In a study of inpatients, Riggs and colleagues (2007) found that unresolved attachment was related to higher rates of dissociation and post-traumatic stress disorder (PTSD), and higher schizotypal and borderline personality disorder symptoms. In a non-clinical sample, women classified as unresolved reported the highest rates of having previously been in individual psychotherapy (Riggs, Jacobvitz, & Hazen, 2002), which could be an indication that they were more likely to experience psychological difficulties. In a study of adolescents admitted to treatment centers, Adam, Sheldon-Keller, and West (1996) found that 73% of adolescents with a history of suicidal behavior were classified as unresolved compared with 44% of a clinical comparison group of adolescents with no history of suicidal behavior or ideation. Stovall-McClough and Cloitre (2006) found that, among women who had experienced childhood abuse, those with unresolved attachment were dramatically more likely to carry a diagnosis of PTSD and to exhibit avoidant symptoms. These findings suggest that individuals with an unresolved attachment organization may be more likely to experience psychological difficulties.

Unresolved attachment is also related to impaired interpersonal functioning. Unresolved attachment in a parent is associated with disorganized attachment patterns in his or her infant (van IJzendoorn, 1995) and with unresponsive or frightening parenting behavior (Hesse & Main, 2006; Lyons-Ruth et al., 1999; Madigan et al., 2006). Unresolved attachment is also related to difficulties in romantic relationships. In a sample of college students, Creasey (2002) found that unresolved individuals displayed a number of potentially problematic conflict management

behaviors within a couple. Relative to insecurely attached individuals who were not unresolved, those who were both insecurely attached and unresolved displayed more domineering behavior and fewer positive behaviors during conflict management. Among women who had experienced intimate partner violence, those who were classified as unresolved were more likely to have been abused by multiple partners (Alexander, 2009).

Given the association between unresolved attachment and higher levels of psychopathology and interpersonal dysfunction, it seems probable that unresolved attachment would be related to psychotherapy process and could increase the risk of poor outcome (Levy, 2005; Levy et al., 2006). Korfmacher and colleagues (1997) studied the relationship between unresolved attachment and therapeutic process in the context of an intervention to help mothers adopt a more responsive caregiving style with their infants. Mothers who were classified as unresolved had poorer relationships with therapists, faced a greater number of obstacles to treatment, needed more crisis intervention, and demonstrated lower participation in and commitment to treatment. This suggests that unresolved attachment poses to treatment that may impact therapeutic alliance.

<p style="text-align:center"><strong>Alliance, Attachment, and Borderline Personality Disorder</strong></p>

**Alliance and borderline personality disorder**

One difficulty inherent in treating BPD is that the features associated with the disorder, such as affective lability, anger, stormy relationships, and suicidality may challenge clinicians and limit patients' ability to engage in treatment. Therefore, the disorder itself may interfere with psychotherapy process and treatment completion, making recovery less likely. A number of authors have argued that establishing an effective therapeutic alliance with BPD patients is especially difficult. Yeomans, Gutfreund, Selzer, & Clarkin (1994) found that patient impulsivity predicted difficulties in the therapeutic alliance and earlier dropout. Many patients with BPD experience difficulty with feeling alone, which can lead to conflicts over the therapist's

availability (Gunderson, 1996). This could contribute to alliance ruptures. Consistent with this, Little (2011) found that patients with BPD experienced more alliance rupture and repair episodes in DBT than did patients without BPD. Furthermore, difficulties in building an alliance with BPD patients may be more pronounced than current studies suggest, given the association between poor alliance and dropout (e.g., Wasserman, 2011). For example, while Gunderson, Najavits, Leonhard, Sullivan, and Sabo (1997) found an increase in alliance over time in the treatment of BPD, they also documented a high dropout rate, which might indicate poor alliance among patients who dropped out. More broadly, a number of other writers (Adler, 1985; Gunderson, 1984; Kernberg, 1984; Linehan, 1993; Masterson, 1978) have noted that the interpersonal difficulties characteristic of BPD contribute to challenges in forming a stable working alliance with BPD patients. This may be especially difficult in psychodynamic psychotherapies; Gabbard and colleagues (1994) noted that transference interpretation tends to elicit a more dramatic reaction (either positive or negative) from BPD patients than other interventions. This could make it difficult to establish a stable alliance in treatments that use transference interpretation. Patients with BPD often exhibit poor compliance and dissatisfaction with therapy, which may contribute to poor alliance (Gunderson et al., 1989; Kelly et al., 1992; Skodol, Buckley, & Charles, 1983; Waldinger & Gunderson, 1984). However, there is some evidence that treatment modality and individual differences may interact to influence alliance; Hirsh, Quilty, Bagby, and McMain (2012) found that, among BPD patients, higher agreeableness was associated with steeper increases in alliance throughout treatment in DBT, but not in a psychiatric management condition.

This difficulty in building a therapeutic alliance with BPD patients likely undermines the efficacy of BPD treatments, since a strong therapeutic alliance consistently predicts better treatment outcome (Castonguay et al., 2006; Horvath, Del Re, Flückiger, & Symonds, 2011). This influence of alliance on outcome across treatments conditions has also been seen in BPD

treatments; in a study comparing DBT and client-centered therapy, Turner (2000) found that therapeutic alliance accounted for as much variance in outcome as treatment group across conditions. Marziali, Munroe-Blum, and McCleary (1999) found that better alliance ratings predicted better outcomes in BPD patients in both individual and group therapy. Similarly, Wasserman (2011) found that better alliance predicted greater improvement in symptom severity across three treatments for BPD. There is also evidence that a stronger alliance may help prevent BPD patients from prematurely dropping out of treatment, which could allow them to receive a sufficient dose of treatment. In a study of BPD patients, therapist contribution to working alliance predicted a greater length of time spent in treatment (Yeomans et al., 1994). In a study of inpatients with BPD treated using DBT, Leerer (1997) found that those who perceived the therapeutic alliance as positive experienced greater symptom reduction. These results suggest that alliance generally predicts better outcome in BPD treatment.

Findings from studies with BPD patients suggests that, consistent with findings from other patient populations, therapeutic alliance tends to increase over time and predict treatment retention, in addition to predicting better outcomes. In a study of BPD patients using a sample from the same RCT as the current study, Wasserman (2011) found that higher ratings of therapeutic alliance predicted treatment retention. Hilsenroth, DeFife, Blake and Cromer (2007) found that therapeutic alliance tended to increase over time in therapy for BPD patients, as did Gunderson and colleagues (1997), although given the high dropout rate in this study, it is possible that only patients with a relatively strong alliance remained in treatment. These are consistent with Dinger and colleagues' (2009) findings that alliance tended to increase over time in a sample of patients with mixed diagnoses.

Given the consistent relationship between the therapeutic alliance and outcome, the alliance disruptions associated with the interpersonal difficulties characteristic of BPD present a challenge to therapists and may increase the risk of poor outcome. However, these disruptions

may present an opportunity for change, if they are managed correctly. The effective resolution of disruptions in the therapeutic alliance has been found to predict better outcome; in a meta-analysis of eight studies, Safran and colleagues (2011) found that training therapists to repair alliance ruptures resulted in a small but significant improvement in outcome. In fact the presence of rupture-repair episodes may contribute to better outcome; across three studies, Safran and colleagues (2011) found a correlation of .24 between rupture-repair episodes and outcome. In the context of BPD, where disruptions in interpersonal relationships are characteristic of the disorder, corrections of these disruptions may allow for improvement in the therapeutic alliance. In unpublished data from a sample of BPD patients, increased stability in the patients' views of self and others predicted improvement in the alliance (K. N. Levy, personal communication, May 20, 2013). These findings suggest that effective management of alliance disruptions secondary to the interpersonal difficulties characteristic of BPD may be essential to positive outcomes.

Given the association between therapeutic alliance and outcome, and the potential for repairs of alliance ruptures to contribute to better outcome, it is hardly surprising that techniques aimed at fostering an effective therapeutic alliance are incorporated into discussions of BPD treatment (e.g., Linehan, 1993; Young et al., 2006; Kernberg, 1984). Additionally, a number of studies have examined the development and predictors of the therapeutic alliance in BPD. In a study of inpatients, a comorbid diagnosis of a cluster B personality disorder (which included a significant proportion of BPD diagnoses) was associated with poorer therapeutic alliance for patients with an Axis I diagnosis other than a psychotic disorder (Clarkin, Hurt, & Crilly, 1987). In a study of BPD patients, Levy, Beeney, Wasserman and Clarkin (2010) found the tendency to shift rapidly between opposing mental states (such as idealization and denigration), which contributes to interpersonal dysfunction in BPD, predicted poorer alliance across three treatments. These interpersonal difficulties also translate into mental health care settings other than psychotherapy. Studies of nursing staff found that they reported less willingness to help patients

with BPD (Forsyth, 2007), reported more negative experiences with these patients and were least

optimistic about their prognosis (Markham, 2003). These results could suggest that therapists may

tend to have more negative feelings toward BPD patients, which, if improperly managed, could

contribute to alliance ruptures. There is some evidence that treatment modality may influence

these negative feelings. Cottraux and colleagues (2009) found that therapists administering

cognitive therapy to treat BPD viewed their patients more positively than those administering

Rogerian supportive therapy. Meehan, Levy, and Clarkin (2012) found that therapists

administering TFP experienced more negative affect in treatment than those administering DBT

or SPT. These results suggest that treatment modality may moderate the extent to which

therapists experience negative feelings toward BPD patients.

**Attachment and borderline personality disorder**

As might be expected given the interpersonal difficulties characteristic of the disorder,

BPD is associated with maladaptive attachment patterns. Although BPD is associated with very

low rates of secure attachment, it is not associated with any insecure attachment style in particular

(Levy, 2005). While BPD may initially appear to be synonymous with unresolved attachment

(given the affective lability, splitting, and transient dissociative states associated with the

disorder), and a number of studies have shown high rates of unresolved attachment in BPD

patients, others show lower rates consistent with other clinical populations (Levy, 2005).

Furthermore, given that the coding of the unresolved classification on the AAI requires the

experience of trauma or loss (Main et al., 2008), and not all BPD patients have had such

experiences (Paris, 2004), a significant proportion of BPD patients cannot receive this

classification. Choi-Kain, Fitzmaurice, Zanarini, Laverdière, and Gunderson (2009) found that

BPD participants had higher ratings on scales assessing preoccupied and fearful (high in both

avoidance and anxiety) attachment styles using a self-report measure than either participants with

major depressive disorder or a non-borderline and non-depressed comparison group. Furthermore,

higher ratings on these scales were associated with the interpersonal disturbances characteristic of

BPD. This suggests that, not only is BPD associated with insecure attachment, but that insecure

attachment in BPD contributes to the interpersonal difficulties typical of the disorder.

# Chapter 2

# Current Study

Despite the potential for unresolved attachment to be a risk factor for poor outcome and to interfere with the therapeutic alliance, few studies to date have examined the relationship between unresolved attachment and alliance, and none have done so in the context of BPD. Furthermore, existing research concerning how the relationship between attachment patterns and outcome may be moderated by treatment has been limited. McBride, Atkinson, Quilty, and Bagby (2006) found that, in a study of patients with major depression, patients who were high in attachment avoidance responded better to cognitive behavioral therapy than to interpersonal therapy, which suggests that treatment modality may moderate the relationship between attachment and outcome, at least under certain circumstances. However, it is unclear whether similar results would apply to the treatment of BPD, and no study to date has examined the interaction between unresolved attachment and treatment modality in predicting alliance. Determining whether BPD patients with different attachment patterns develop a stronger alliance in certain treatments could have important implications for prognosis and treatment recommendations given the association between alliance and outcome.

More generally, given findings that different treatments may result in variable changes on different outcome measures (e.g., Goldman & Gregory, 2010; Levy et al., 2006), it is important to identify how treatment and patient characteristics influence outcome. Understanding how treatment and patient characteristics may interact to predict alliance is an important step toward understanding how these interactions may relate to outcome, given the association between alliance and outcome. Few studies have examined how treatment may relate to differences in alliance in treating BPD. Spinhoven and colleagues (2007) found that both patients and therapists rated alliance as being higher in SFT than in TFP. However, given that therapists' alliance ratings

of patients who dropped out of TFP in the first three months were made after the patients dropped out (which could have biased these ratings), it is unclear what conclusions can be drawn from this finding. In the sample used in the current study, Wasserman (2011) found no difference in therapeutic alliance across treatments.

In the current study, we examined the relationship between unresolved attachment and therapeutic alliance across three treatments for BPD: TFP (Clarkin et al., 2006), DBT (Linehan, 1993), and supportive psychotherapy (SPT; Appelbaum, 2005). Using a sample from a year-long RCT comparing the efficacy of these three treatments (Clarkin et al., 2007), we compared early alliance (measured twice at around one month, and a third time about three months into treatment) across these treatments and compared patients with unresolved attachment to those with a different classification.

**Hypothesis 1**

The first aim of this study is to assess the relationship between unresolved attachment and alliance in the context of treatment for BPD. Given that unresolved attachment is associated with higher levels of interpersonal dysfunction and psychopathology, and that some research suggests that unresolved patients may be less committed to treatment and experience a poorer relationship with clinicians (Korfmacher et al., 1997), we predicted that, across all treatments, therapeutic alliance would be lower in unresolved patients.

**Hypothesis 2**

The second aim of the study is to assess whether the relationship between unresolved attachment and alliance differs according to treatment. Given the additional vulnerability that unresolved attachment represents, we anticipated that patients with unresolved attachment would have variable alliance across treatment groups, while patients without unresolved attachment would be better able to adapt to the context of each treatment and exhibit less variance in alliance across treatments. We anticipate that alliance among patients with unresolved attachment will be

lower for patients in TFP and higher for patients in DBT and SPT. This would be consistent with Gabbard and colleagues' (1994) finding that transference interpretation, which is a technique used in TFP but not DBT or SPT, had a more markedly positive and/or negative impact on the alliance than other interventions. While this finding applied to a sample that presumably included patients with and without unresolved attachment, and there were no differences in therapeutic alliance across treatment groups in the sample used in the current study (Wasserman, 2011), the segregated internal working models associated with unresolved attachment would likely make those patients more vulnerable to drastic alliance disruptions associated with transference interpretation.

# Chapter 3

## Method

### Participants

The sample consists of a subset of 90 patients who were treated in an RCT examining three treatments for BPD (Clarkin et al., 2007; Levy et al., 2006); a total of 78 patients had data available for both attachment classification and alliance, and therefore could be included in the present study. All patients were reliably diagnosed as having BPD by trained clinicians using structured clinical interviews as described below. In addition to a number of primary and secondary outcome measures, all patients were assessed using the Adult Attachment Interview (AAI; George et al., 1985). Patients were randomized into one of three treatments for a no-cost year-long treatment: TFP, DBT, or SPT. Of the 78 patients included in the study, 22 (26.8%) were classified as unresolved on the AAI.

Demographic characteristics of the sample are presented in Table 1. The sample consisted of 83 (92.2%) women and 7 (7.8%) men between the ages of 15 and 50 (M = 30.9, SD = 7.8). In the overall sample, 7 (7.7%) were married, 40 (44.4%) were divorced, 11 (12.2%) were living with a partner, and 21 (23.3%) were in a relationship without cohabitation. On average, patients had at least completed some college education: 3 (3.3%) did not complete high school, 7 (7.8%) graduated from high school, 28 (31.1%) completed some college, 6 (6.7%) completed an Associate's degree, 29 (32.2) completed an undergraduate degree, and 17 (18.9%) had some form of graduate training. In terms of employment, 30 (33.3%) were employed full-time and 23 (25.6%) were employed part-time. In terms of ethnicity, 61 (67.8%) were Caucasian, 9 (10.0%) were African American, 8 (8.9%) were Hispanic, 5 (5.6%) were Asian, and 7 (7.8%) were of another ethnicity. Only 15 (16.7%) of patients had no history of suicidal or parasuicidal behavior, with 51 (56.7%) having a history of suicidal behavior and 56 (62.2%) having a history of

parasuicidal behavior. Most patients had a history of an Axis I disorder, with 69 (76.7%) having a

history of mood disorders, 43 (47.8%) having a history of anxiety disorders, 30 (33.3%) having a

history of eating disorders, and 34 (37.8%) having a history of alcohol/substance abuse or

dependence.  Exclusion criteria for this RCT consisted of the presence of: psychotic disorder,

bipolar I disorder, current substance dependence, and IQ below 80.  Further information on

patient characteristics can be found elsewhere (Critchfield, Levy, Lenzenweger, & Kernberg,

2007).

**Table 1**. Demographic characteristics of the sample.

|  | *n* | *%* | *M* | *SD* |
|---|---|---|---|---|
| **Sex** | | | | |
| Female | 83 | 92.2 | | |
| Male | 7 | 7.8 | | |
| **Age** | | | 30.9 | 7.8 |
| **Marital Status** | | | | |
| Married | 7 | 7.7 | | |
| Divorced | 40 | 44.4 | | |
| Living with partner | 11 | 12.2 | | |
| In a relationship without cohabitation | 21 | 23.3 | | |
| **Education** | | | | |
| High school diploma | 7 | 7.8 | | |
| Some college | 28 | 31.1 | | |
| Associate's degree | 6 | 6.7 | | |
| Undergraduate degree | 29 | 32.2 | | |
| Graduate education | 17 | 18.9 | | |
| **Employment** | | | | |
| Full-time | 30 | 33.3 | | |
| Part-time | 23 | 25.6 | | |
| **Ethnicity** | | | | |
| Caucasian | 61 | 67.8 | | |
| African-American | 9 | 10.0 | | |
| Hispanic | 8 | 8.9 | | |
| Asian | 5 | 5.6 | | |
| Other | 7 | 7.8 | | |
| **History of suicidal/parasuicidal behavior** | | | | |
| History of suicidal behavior | 51 | 56.7 | | |
| History of parasuicidal behavior | 56 | 62.2 | | |
| No history of either | 15 | 16.7 | | |
| **Axis I diagnosis** | | | | |
| Mood disorders | 69 | 76.7 | | |
| Anxiety disorders | 43 | 47.8 | | |
| Eating disorders | 30 | 33.3 | | |
| Substance use disorders | 34 | 37.8 | | |

**Treatments**

**Transference-Focused Psychotherapy**

TFP (Clarkin et al., 2006) is a manualized psychodynamic treatment for BPD. Its primary focus is on the affectively laden themes that arise in the relationship between the patient and the therapist as the therapy progresses. This treatment modality views many aspects of BPD psychopathology as stemming from the experiential avoidance of certain aspects of views about self and others; because these aspects that are avoided or "split off" are often highly negative, this avoidance serves the purpose of preventing negative aspects from contaminating positive aspects of one's view of self and others. This contributes to an unstable view of self, which then leads to interpersonal difficulties, extreme behavior, and suicidal or parasuicidal behavior. The primary goal of TFP is to reduce BPD symptoms and self-destructive behaviors by helping the patient to put these avoided aspects of one's view of self and other into a perspective that allows him or her to integrate them with experiences of self and other in a way that does not contaminate positive aspects of these experiences. Difficulties that develop in the therapeutic relationship are used as in-vivo examples of difficulties that may develop in the patient's other relationships. Patients in this treatment group had two individual sessions per week.

**Dialectical Behavior Therapy**

DBT (Linehan, 1993) is a manualized cognitive-behavioral treatment for BPD that includes both individual therapy and group skills training. This treatment modality views BPD psychopathology as stemming from an innate predisposition to emotional instability combined with an environment in childhood in which the child's feelings are often invalidated (for example, parents denying that the feelings are real or important, or acting as though the child feels something different). Growing up in such an environment leaves the individual without a proper understanding of his or her feelings or healthy strategies for dealing with them, which can have serious consequences for individuals already prone to emotional instability. BPD symptoms are

understood as attempts to regulate one's unstable emotions. One key principle of DBT is finding a balance between accepting the patient as he/she is at the moment and striving for change. The individual component of DBT focuses on reducing and gradually eliminating target behaviors (e.g., life-threatening behaviors, therapy-interfering behaviors, and behaviors that diminish quality of life). There is also a focus on behavioral analysis of suicidal and parasuicidal behaviors in order to help the patient identify the triggers of these behaviors and better ways of coping. The group component of DBT focuses on teaching the patient skills related to distress tolerance, emotion regulation, management of one's own behavior and cognitions, and interpersonal interaction. Patients in this treatment group had one individual session and one group skills training session each week.

**Supportive psychotherapy**

SPT (Rockland, 1992) is a manualized dynamically-oriented therapy modified for the treatment of BPD. This treatment modality is based on the idea that a supportive approach, as opposed to a more predominantly exploratory approach (as in TFP, for example) is most appropriate for many BPD patients. The primary focus of this approach is to build a collaborative relationship with the patient, to strengthen adaptive responses to the demands of everyday life as well as one's own emotions and anxiety, and to help replace self-destructive acting out with verbal expression. Patients in this treatment group generally had one individual session per week, but could be increased to two sessions per week if the therapist deemed it appropriate.

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**Measures**

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**Diagnostic Assessment**

*Axis I*

The Structured Clinical Interview for the DSM-IV (SCID; First, Gibbon, Spitzer, & Williams, 1997) was used to assess Axis I diagnoses. The SCID is a semi-structured diagnostic interview that covers a wide range of Axis I pathology (mood disorders, psychotic disorders,

substance use, eating disorders, anxiety disorders, etc.). In this sample, kappa values were as follows: 0.84 for psychotic disorders, 0.78 for bipolar affective disorders, 0.74 for unipolar affective disorders, 0.59 for anxiety disorders, 0.68 for alcohol/substance abuse, 1.00 for alcohol/substance dependence, and 0.90 for eating disorders (Critchfield et al., 2007). Based on the standards outlined by Landis and Koch (1977), all of the kappa ratings listed above represent moderate or better reliability, with only one rating (anxiety disorders) indicating less than substantial reliability.

*Axis II*

The International Personality Disorder Examination (IPDE; Loranger, 1999) was used to assess Axis II pathology. The IPDE is a semi-structured diagnostic interview that consists of 99 items arranged in six themes (e.g., Relationships, Self, Affect). In the current sample, the kappa value for BPD diagnosis was 0.64, which corresponds to a substantial agreement according to the standards described by Landis and Koch (1977). The intraclass correlation coefficient (ICC) for dimensional BPD criteria ratings was 0.86. The ICC values for criteria of other personality disorders ranged from 0.67 (schizotypal personality disorder criteria) to 0.93 (paranoid personality disorder criteria). According to the standards described by Fleiss (1986), the ICC values ranged from fair to excellent.

**Attachment organization**

The Adult Attachment Interview (AAI; George et al., 1985) was used to assess attachment organization. The AAI is a semi-structured interview consisting of twenty questions in a predetermined order with set probes. The interview is intended to assess an individual's state of mind with regard to early attachment relationships. This interview is transcribed verbatim and rated by trained coders. AAI classifications do not appear to be influenced by social desirability, intelligence, or autobiographical memory not related to attachment experiences (Bakermans-Kranenburg & van IJzendoorn, 1993). Bakermans-Kranenburg and van IJzendoorn (1993) found

that 78% of participants received the same AAI classification twice when tested two months apart

when unresolved status was not taken into account, while only 61% received the same

classification twice when unresolved status was taken into account. This suggests that the

unresolved classification may be somewhat less stable than the main AAI classifications, likely

because it may depend on whether lapses in monitoring of reasoning or discourse occur during a

given interview.

**Working alliance**

The Working Alliance Inventory - Observer Version (WAI-O; Horvath & Greenberg,

1989) was used to assess alliance. Based on Bordin's (1979) pantheoretical model of working

alliance, the WAI consists of three subscales that assess the bond, task, and goal components of

alliance, each consisting of 12 items rated on a seven-point Likert scale. The WAI-O has

demonstrated high internal validity ($\alpha$=.98; Tichenor & Hill, 1989). The use of an observer-rated

alliance measure allows for an assessment of alliance that depends on the behavior of therapists

and patients, rather than their assessment of these behaviors after each session. This may be

particularly important when assessing alliance in the treatment of BPD, which is characterized by

instability in interpersonal relationships (Clarkin et al., 1983). Furthermore, there is evidence that

observer-rated alliance is a better predictor of outcome than either therapist-rated or patient-rated

alliance, particularly when objective outcome measures are employed (Fenton et al., 2001;

Horvath & Symonds, 1991).

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**Procedure**

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Diagnostic interviews (SCID and IPDE) were carried out as part of the recruitment

process for the RCT. Patients' attachment organization was assessed using the AAI prior to the

beginning of treatment. Ratings of working alliance were made by three clinical psychology

doctoral students who were trained to reliability on the WAI-O. Each rater had at least two years

of psychotherapy experience and had previously treated patients with BPD. Raters were trained as

a group on a weekly basis over a four-month period until they met an adequate level of pre-study reliability (ICC >.70), and then met weekly while coding to prevent rater drift and to receive supportive training. The mean ICC across all items for the sessions under study was .83.

Sessions five and seven were selected for rating whenever possible. When this was not possible, two non-consecutive sessions at the beginning of treatment were selected for rating. A third session at about three months into treatment was also rated. Ratings from the first two sessions were averaged in order to minimize any early variations in alliance that may be related to setting the therapeutic frame, which is likely to still be ongoing at that stage of treatment. The average of the first two sessions was used as the first time point (T1), and the third session was used as the second time point (T2).

## Data Analytic Approach

**Specific Aim 1: To examine the relationship between unresolved attachment and alliance across treatments.**

In order to test that hypothesis that unresolved attachment status will predict lower ratings of alliance, a one-way (unresolved status) ANOVA will be used to assess differences in the overall score on the WAI. These analyses will be completed separately for each time point.

**Specific Aim 2: To examine the interaction between unresolved attachment and treatment in predicting alliance.**

In order to test the hypothesis that the relationship between unresolved attachment and alliance differs according to treatment type (such that, for patients without unresolved attachment, alliance will be similar across treatments, while for patients with unresolved attachment, alliance will be higher in DBT and SPT and lower in TFP), a two-way (unresolved status x treatment) ANOVA will be used to assess differences in the overall score on the WAI. These analyses will be completed separately for each time point.

# Chapter 4

# Results

Descriptive statistics for the current sample by treatment group, unresolved attachment classification, and treatment group by attachment classification, are presented in Table 2. Of the original 90 patients in the sample, a total of 78 patients had data on both alliance and attachment classification and could be used in analyses at the first time point; of these, 53 patients also had alliance data at the second time point (three months into treatment) and could be used in analyses at the second time point.

Across the whole sample, alliance at the first time point was normally distributed, with a skewness of -.48 (SE = .27) and kurtosis of .11 (SE = .54). Alliance at the second time point was non-normally distributed, with a skewness of -1.01 (SE = .33) and kurtosis of 1.08 (SE = .64). Given the negative skew at the second time point, alliance scores were transformed prior to analyses using a logarithmic transformation. Transformed scores were normally distributed, with alliance scores at the first time point having a skewness of .18 (SE = .33) and kurtosis of -.19 (SE = .64), and alliance scores at the second time point having a skewness of -.19 (SE = .27) and kurtosis of .17 (SE = .54). All reported descriptive statistics refer to untransformed variables.

**Table 2.** Estimated marginal means for alliance for the whole sample, by treatment group, by

attachment status, and by attachment status within each treatment group.

|  | *M* | *SE* |
|---|---|---|
| **Whole Sample** | | |
| T1 alliance | 5.00 | .06 |
| T2 alliance | 5.11 | .09 |
| **By treatment group** | | |
| **TFP** | | |
| T1 alliance | 4.87 | .10 |
| T2 alliance | 5.07 | .16 |
| **DBT** | | |
| T1 alliance | 4.98 | .09 |
| T2 alliance | 5.01 | .15 |
| **SPT** | | |
| T1 alliance | 5.14 | .11 |
| T2 alliance | 5.26 | .15 |
| **By attachment status** | | |
| **Unresolved** | | |
| T1 alliance | 4.92 | .10 |
| T2 alliance | 5.07 | .15 |
| **Other** | | |
| T1 alliance | 5.08 | .06 |
| T2 alliance | 5.16 | .10 |
| **By attachment status and treatment group** | | |
| **TFP - Unresolved** | | |
| T1 alliance | 4.61 | .16 |
| T2 alliance | 4.69 | .26 |
| **TFP - Other** | | |
| T1 alliance | 5.14 | .10 |
| T2 alliance | 5.45 | .17 |
| **DBT – Unresolved** | | |
| T1 alliance | 4.84 | .14 |
| T2 alliance | 5.20 | .24 |
| **DBT - Other** | | |
| T1 alliance | 5.12 | .11 |
| T2 alliance | 4.82 | .19 |
| **SPT - Unresolved** | | |
| T1 alliance | 5.31 | .19 |
| T2 alliance | 5.32 | .26 |
| **SPT - Other** | | |
| T1 alliance | 4.98 | .09 |
| T2 alliance | 5.21 | .15 |

**Between-Group Comparisons**

**Specific Aim 1: To examine the relationship between unresolved attachment and alliance across treatments.**

A one-way ANOVA (unresolved attachment classification) was performed in order to assess the impact of unresolved attachment classification on alliance at each time point. Results of this analysis are presented in Table 3. The difference in alliance between these groups of patients was only significant at a trend level at the first time point, $F(1,76) = 2.90$, $p = .093$. Unresolved patients ($M$=4.92, $SD$=.10) had marginally lower alliance than did patients with other attachment classifications ($M$=5.08, $SD$=.06). There was no difference between the two groups at the second time point.

**Table 3.** Results of one-way analysis of variance examining the relationship of unresolved attachment and alliance across patients from all treatment groups.

| Time 1 | | | | |
|---|---|---|---|---|
| Source | $df$ | $F$ | $\eta^2$ | $p$ |
| Between Groups | 1 | 2.901 | 0.036 | .093 |
| Within Groups | 76 | | | |

| Time 2 | | | | |
|---|---|---|---|---|
| Source | $df$ | $F$ | $\eta^2$ | $p$ |
| Between Groups | 1 | 0.211 | 0.004 | .648 |
| Within Groups | 51 | | | |

**Specific Aim 2: To examine the interaction between unresolved attachment and treatment in predicting alliance.**

A two-way ANOVA (treatment group by unresolved attachment classification) was performed in order to assess the impact of unresolved attachment and treatment group on alliance at each time point. Results of this analysis are presented in Table 4. At the first time point, while the main effects of treatment group and unresolved attachment classification were both nonsignificant, the interaction between the two variables was significant, $F(2,72) = 4.15$, $p = 0.020$, $\eta_p^2 = .103$. This interaction is displayed in Figure 1. Unresolved patients in SPT ($M=5.31$, $SE=.19$) had higher alliance than those in TFP or DBT ($M=4.61$, $SE=.16$; $M=4.84$, $SE=.14$); there were no differences across treatment groups for patients with other attachment classifications. Within treatments, unresolved patients in TFP and DBT had lower alliance than those with other attachment classifications. However, within SPT, unresolved patients had higher alliance than those with other attachment classifications.

At the second time point, the main effects of treatment group and unresolved attachment classification were both nonsignificant, while the interaction between the two variables was only significant at a trend level, $F(2,47) = 2.91$, $p = 0.064$, $\eta_p^2 = .110$. At this time point, unresolved patients in TFP ($M=4.69$, $SE=.26$) had lower alliance than those in SPT or DBT ($M=5.32$, $SE=.26$; $M=5.20$, $SE=.24$). Among patients with other attachment classifications, those in DBT ($M=4.82$, $SE=.19$) had lower alliance than those in TFP or SPT ($M=5.45$, $SE=.17$; $M=5.21$, $SE=.15$). Within treatments, unresolved patients had lower alliance than did those with other attachment classifications in TFP, while the opposite was true in DBT.

**Table 4.** Results of two-way analysis of variance (unresolved attachment by treatment group) of alliance.

| Time 1 | | | | |
|---|---|---|---|---|
| Source | $df$ | $F$ | $\eta_p^2$ | $p$ |
| Unresolved Attachment | 1 | 1.828 | 0.025 | .181 |
| Treatment Group | 2 | 1.487 | 0.040 | .233 |
| Unresolved Attachment * Treatment Group | 2 | 4.146 | 0.103 | .020 |
| Time 2 | | | | |
| Source | $df$ | $F$ | $\eta_p^2$ | $p$ |
| Unresolved Attachment | 1 | 0.138 | 0.003 | .712 |
| Treatment Group | 2 | 0.477 | 0.020 | .624 |
| Unresolved Attachment * Treatment Group | 2 | 2.912 | 0.110 | .064 |

**Figure 1.** Interaction between treatment group and unresolved attachment classification in predicting alliance at A) T1 and B) T2.
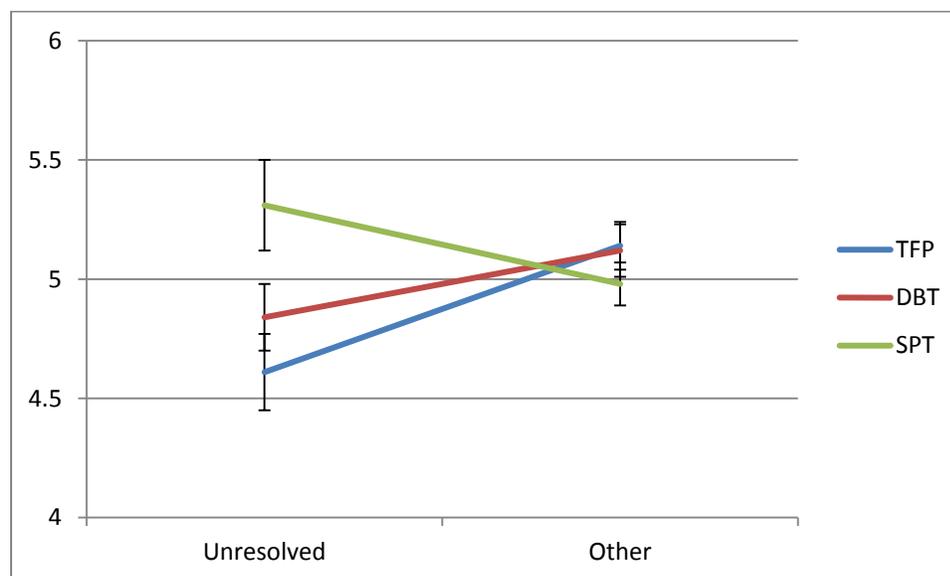


A) Interaction at T1.
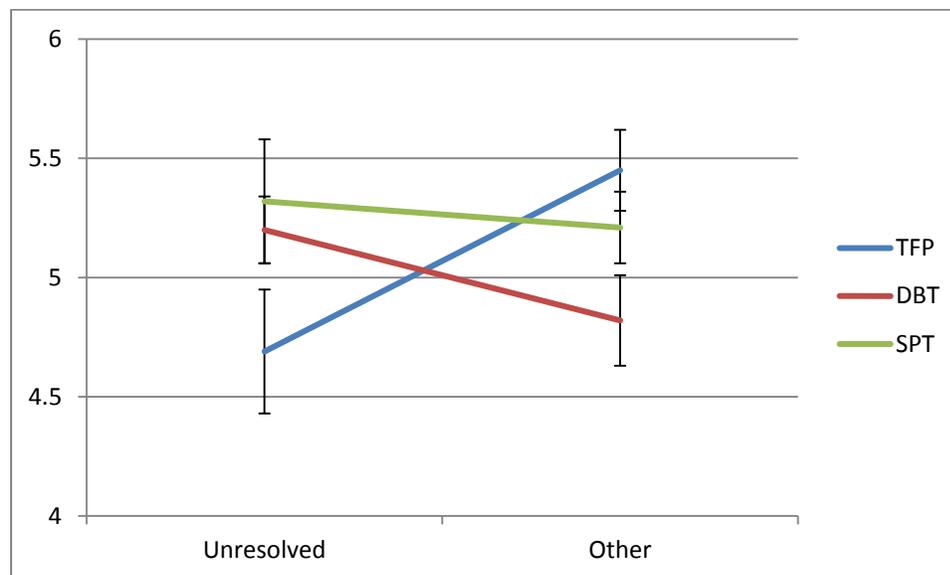


B) Interaction at T2.

## Drop-Out Analyses

Given that previous research has found an association between poor alliance and drop-out (Castonguay et al., 2006; Clarkin et al., 1994; Wasserman, 2011), one-way ANOVAs were used to assess whether drop-outs and completers differed in terms of alliance at each time point. The difference between these groups at the first time point was only significant at a trend level, $F(1,76) = 3.38$, $p = .070$. Drop-outs had lower alliance scores ($M=4.83$, $SD= .45$) than did completers ($M =5.08$, $SD=.44$). At the second time point, drop-outs ($M=4.55$, $SD=.79$) had significantly lower alliance than did completers ($M=5.28$, $SD=.49$), $F(1,51) = 10.59$, $p = 0.002$.

Additionally, a logistic regression was used in order to assess whether alliance predicted dropout in this sample when accounting for alliance at both time points. Results of this analysis are presented in Table 5. Results suggest that, when alliance at both time points was accounted for, only alliance at the second time point predicted a greater risk for later dropout.

**Table 5.** Logistic regression analysis of drop-out status.

| Independent Variable | β | $SE$ | Wald | df | $p$ | Exp(β) |
|---|---|---|---|---|---|---|
| Alliance – T1 | 1.20 | 1.44 | .70 | 1 | $ns$ | 3.32 |
| Alliance – T2 | -2.55 | 1.06 | 5.83 | 1 | .016 | .078 |
| Constant | 5.04 | 4.82 | 1.09 | 1 | .296 | 154.71 |
| Model $\chi^2$ | 10.89, $p = 0.004$ | | | | | |
| Pseudo $R^2$ | .311 | | | | | |
| $n$ | 53 | | | | | |

# Chapter 5

## Discussion

The goal of the present study was to assess the impact of unresolved attachment classification and treatment group on early alliance in psychotherapy for BPD. The main effects for treatment group and unresolved attachment on alliance were nonsignificant at both time points, suggesting that, on their own, these factors were not a significant predictor of early alliance. At the first time point (around sessions 5 to 7), there was a significant interaction between unresolved attachment and treatment group; unresolved patients in SPT had higher alliance than those in TFP or DBT, while there were no differences between treatment groups among patients with other attachment classifications. At the second time point (around three months into treatment), there was only a trend-level interaction between attachment classification and treatment group; unresolved patients in TFP had lower alliance than those in SPT or DBT, while, among patients with other attachment classifications, those in DBT had lower alliance than those in the other two treatment groups.

These results were not entirely consistent with our first hypothesis, which predicted that alliance would be lower in unresolved patients across all treatment groups. When only the impact of unresolved attachment was analyzed, patients with unresolved attachment had only marginally lower alliance at the first time point, and did not differ from patients with other attachment classifications at the second time point. Consistent with this, in the analyses including both unresolved attachment and treatment group, at both time points, the main effect of unresolved attachment on alliance was nonsignificant. At the first time point, while unresolved patients in both TFP and DBT had lower alliance than patients with other attachment classifications, unresolved patients in SPT had higher alliance than those with other attachment classifications. At the second time point, while unresolved patients in TFP had lower alliance than those with other attachment classifications, unresolved patients in DBT had higher alliance than those with

other attachment classifications, and there was no significant difference in alliance between the two groups of patients in SPT. Thus, while unresolved patients in TFP consistently had lower alliance than did patients with other attachment classifications, this pattern was only observed very early in treatment for DBT patients, and was never observed in SPT patients.

One possible explanation for these findings is that, while unresolved attachment is associated with greater interpersonal dysfunction, psychopathology, and difficulties in committing to treatment (Creasey, 2002; Korfmacher et al., 1997; Riggs et al., 2007), these characteristics are also associated with BPD (APA, 2013; Little, 2011). Accordingly, the influence of these characteristics of unresolved attachment may have been overshadowed by the influence of the disorder itself. If this is the case, this could suggest that the impact of unresolved attachment on alliance could be greater in other clinical populations than in BPD patients. Additionally, the low average alliance rating of patients with other attachment classifications in DBT at the second time point may have obscured an overall association between unresolved attachment and alliance. Given that many of these patients later went on to drop out of treatment (the drop-out rate for DBT was 50.0% for patients both with and without an unresolved attachment classification), there may have been other factors at work within this treatment group that were not accounted for by randomization to treatment and monitoring of adherence and competence.

Similarly, the results were only somewhat consistent with our second hypothesis, which predicted that unresolved patients would have greater variability in alliance across treatment groups and that they would have lower alliance in TFP than in the two other treatment groups. While unresolved patients did appear to have more variability in alliance across treatment groups at the first time point, the opposite was observed at the second time point. However, this could be due to the low alliance scores of patients in DBT who did not have an unresolved attachment classification. Consistent with this second hypothesis, unresolved patients had lower alliance in

TFP than in the other treatment groups at both time points, although this difference was only significant at a trend level at the second time point. As TFP is the only treatment modality that included the use of transference interpretation, which has been described as a high risk, high reward intervention within psychotherapy for BPD patients (Gabbard et al., 1994), one possibility is that the use of this technique contributed to lower alliance in patients with unresolved attachment.

However, recent experimental work has shown that transference-based treatments are related to good outcome in the treatment of BPD (Clarkin et al., 2007; Doering et al., 2010; Levy et al., 2006). Further, there is evidence that the impact of transference interpretation is sensitive to the accuracy of the interpretations (Crits-Cristoph, Cooper, & Luborsky, 1988), as well as to patient characteristics and context (Levy & Scala, 2012; Schut & Castonguay, 2001). Accordingly, the impact of transference interpretations on outcome may be different for patients with poorer interpersonal relationships and views of self and other, which could include those with unresolved attachment.  Previous research has found that patients with more disturbed interpersonal relationships improved more after dynamic psychotherapy with transference interpretations than to therapy without transference interpretations (Høglend, Johannson, Marble, Bøgwald, & Amlo, 2007). While some studies found that the number of transference interpretations correlated negatively with outcome (e.g., Connolly et al., 1999; Ogrodniczuk & Piper, 1999), this may be an artifact of using bivariate correlations. If, for example, low-to-moderate use of transference interpretation (1-3 interpretations per session) is more helpful than not using transference interpretation, but using too many transference interpretations relates to poorer outcome, the overall correlation between the number of transference interpretations and outcome is likely to be negative (Levy & Scala, 2012). Consistent with this, in the same sample where patients with more troubled interpersonal relationships experienced greater improvement when treated with a dynamic psychotherapy with transference interpretations (Høglend et al.,

2007), the overall correlation between the number of transference interpretations and outcome was negative (Høglend & Gabbard, 2012), suggesting that correlations do not accurately reflect the impact of this technique on outcome. Another potential explanation for this discordance is that, in naturalistic studies of transference interpretation, higher use of the technique may be confounded with patient variables (such as resistance or interpersonal hostility) that may contribute directly to poorer outcome (Høglend & Gabbard, 2012), highlighting the importance of experimental designs in assessing the impact of a technique.

Additionally, there is evidence that, in the context of patients with more disturbed interpersonal relationships, low alliance is not necessarily related to poorer outcome, and may in fact interact with the use of techniques such as transference interpretation to predict better outcome. Høglend and colleagues (2011) found that transference interpretations related to better outcome in the context of poor quality of object relations and poor alliance, while they related negatively to outcome with patients with more mature object relations and a stronger alliance. More generally, as the alliance-outcome correlation is weaker in BPD treatment (Scala, Ellison, & Levy, 2014), it may be inaccurate to assume that poorer alliance will lead to poorer outcome. Regarding the findings of the current study, these results suggest that the lower alliance observed in TFP for patients with unresolved attachment may not necessarily predict poorer outcome.

Broadly, these results suggest that it cannot be assumed that unresolved patients will respond in the same way to interventions as will patients with other attachment classifications, or that they will respond in the same manner to different treatment approaches. More specifically, these results could have implications for treatment selection and implementation when working with BPD patients with unresolved attachment.

Unresolved patients in TFP had lower alliance than those in the other treatment groups at both time points. Given the importance of transference interpretation within TFP, and its absence from the other two treatment groups, this could suggest that use of this technique may contribute

to lower alliance in patients with unresolved attachment. If this is the case, one potential clinical

implication of these findings could be that such interventions should be given with more care

when working with unresolved patients, for example by using preparatory interventions that

could help the patient more readily accept the transference interpretation (Levy & Scala, 2012).

Another possible source of the difference are other process elements that are common to DBT

and SPT, but not to TFP, such as the therapist adopting a supportive stance (Levy, Clouthier,

Wasserman, Beeney, & Clarkin, in preparation). This supportive stance may contribute to a more

positive alliance for BPD patients with unresolved attachment. If this is so, this would suggest

that such patients may be experience a stronger alliance in a treatment involving a more

supportive stance, or that therapists using treatment modalities that do not emphasize a supportive

stance (such as TFP) should integrate supportive techniques into treatment in the interest of

improving alliance.

Because alliance is not unequivocally related to outcome in this sample (Wasserman,

2011), and the alliance-outcome relationship may be weaker in BPD treatment (Scala et al.,

2014), it is unclear whether the results of the present study have any implications for treatment

outcome in patients with unresolved attachment. Therefore, it could be the case that, while

unresolved patients in TFP had lower alliance (and presumably a more difficult treatment

experience), they may not have experienced poorer outcomes, which could be consistent with

previous research in which transference interpretations predicted better outcome in the context of

low alliance and the patient having poorly defined views of self and other (Høglend et al., 2011).

If this is the case, being aware that low alliance may not predict poor outcome under these

circumstances could help guide clinical decision-making. Nonetheless, given the association

between alliance and drop-out (e.g., Samstag et al., 1998), attention to alliance maintenance is

warranted in order to increase the chances of patients receiving an adequate dose of treatment.

One of the primary strengths of this study is its relatively large ($N = 78$) sample of patients who are reliably diagnosed with BPD, but differ in terms of exposure to traumatic events and their response to this trauma. Additionally, alliance and attachment were both assessed by trained observers, rather than using self-report measures, which is especially important in a study of BPD patients, given that the unstable views of self and other and interpersonal dysfunction characteristic of the disorder (APA, 2013) could interfere with accurate self-reports of these variables. Also, alliance was measured later in treatment than in many other studies of alliance (as late as three months into treatment). Finally, because high levels of interpersonal dysfunction, including in a treatment setting, are typical in BPD, examining the role of unresolved attachment in predicting alliance in this population makes it more likely that the results are due to the unresolved attachment itself, and not the increased interpersonal dysfunction associated with it.

However, while the overall sample was relatively large, the subsamples (broken down by unresolved attachment classification and treatment group) were much smaller, resulting in lower power. In particular, the interaction between unresolved attachment and treatment group at the second time point was only marginally significant, and it is unclear whether it would generalize to other samples. Additionally, while alliance was measured later in treatment than in many other alliance studies, alliance was not assessed in middle or late treatment. Finally, while there is an advantage to examining the relationship between unresolved attachment and alliance in a sample of BPD patients, as noted above, the baseline level of interpersonal dysfunction and difficulty engaging in treatment typical of this population could obscure associations between unresolved attachment and alliance that might be found in other clinical populations.

One more specific factor that could have impacted the results is that a greater proportion of patients dropped out of DBT (50.0%) than out of TFP (22.7%) or SPT (26.1%). Additionally, while unresolved patients dropped out at a higher rate in both TFP (40% vs. 15.8%) and SPT (25.0% vs. 14.3%), the drop-out rate in DBT did not differ based on unresolved attachment

classification. Given this, it is possible that there were differences in the patients in the DBT treatment group that were not controlled for by randomization or monitoring of adherence and competence, and that might not apply to other groups of BPD patients treated with DBT. However, it should be noted that this drop-out rate is consistent with the rate found in a study of DBT conducted within the UK National Health Service, where over half (56%) of the patients assigned to DBT dropped out within a year (Feigenbaum et al., 2012). Some other studies of DBT have also found drop-out rates ranging from 37% to 45% (Linehan et al., 1999; Verheul et al., 2003).

Given the findings, future research is needed to confirm if treatment recommendations for BPD patients should be made on the basis of unresolved attachment classification. Measuring alliance using intensive repeated measures throughout treatment may be one direction for future research, since measuring only one or two sessions per phase of treatment may provide too narrow a slice of data to see variations. For example, more intensive data would be needed in order to pick up greater instability in alliance or a greater frequency of alliance ruptures. Another future direction for research would be to assess whether the differences in alliance related to unresolved attachment and treatment group hold later in treatment (or whether, for instance, unresolved patients may simply take longer to establish the same level of alliance in certain treatments). Future research could also examine the alliance from multiple perspectives (patient, therapist, observer), given that there may be differences among these perspectives (Tichenor & Hill, 1989). Finally, it would be important to establish whether interactions between unresolved attachment and treatment group would apply to other clinical populations; while the findings of the present study were somewhat equivocal, the impact of unresolved attachment may be more pronounced in clinical populations with less interpersonal dysfunction, clinical severity, and treatment difficulties than BPD. If this is the case, and if interactions with treatment group were to be found, this could have important implications for making treatment recommendations, as

well as for including the assessment of attachment organization into intake procedures for relevant clinical populations. In summary, this study provides initial evidence that 1) patients with unresolved attachment may not respond the same way to interventions as patients with other attachment classifications and 2) patients with unresolved attachment may not respond the same way to different treatment approaches. Further research could help more precisely identify differences in response to treatment associated with unresolved attachment that could inform clinical decision-making.

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