Running Head: Alliance rupture and repair in BPD

Title: Alliance rupture and repair processes and therapeutic change in youth with borderline personality disorder

Elon Gersh[1,2,3], Carol Hulbert[1], Ben McKechnie[3], Reem Ramadan[3], Tamara Worotniuk[3], Andrew Chanen[2,3,4§]

[1] Melbourne School of Psychological Sciences, The University of Melbourne, Parkville, Australia

[2] Orygen, the National Centre of Excellence in Youth Mental Health

[3] Orygen Youth Health, Northwestern Mental Health, Melbourne, Australia

[4] Centre for Youth Mental Health, The University of Melbourne, Parkville, Australia.

Word count (excluding references, tables and figures): 5000

Tables: 4

Figures: 2

[§]Correspondence: Professor Andrew Chanen, Orygen the National Centre of Excellence in Youth Mental Health, Locked Bag 10, Parkville, Victoria, Australia (E-mail: andrew.chanen@orygen.org.au)

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/papt.12097

Received Date: 14-Aug-2015

Revised Date: 02-Mar-2016

Accepted Date: 09-Mar-2016

Article Type: Research Paper

Abstract

Objectives: This study aimed to investigate alliance rupture and repair processes in psychotherapy for youth with borderline personality disorder. It sought to examine whether alliance processes differ between treatments, across the phases of therapy, and what associations these processes might have with therapeutic outcomes.

Design: The study involves repeated measurement of both process and outcome measures. Hypotheses were addressed using within and between subjects analyses.

Methods: Forty-four people, aged 15-24, with a diagnosis of BPD were randomised to receive either 16 sessions of Cognitive Analytic Therapy (CAT) or a supportive treatment known as Befriending. In addition to pre-post outcome assessments, alliance processes were rated using the observer-based Rupture Resolution Rating Scale.

Results: Results indicated that CAT and Befriending did not differ in terms of number of ruptures, although CAT was associated with more stages of rupture resolution. Examination of alliance processes across time pointed to increasing ruptures, more frequent confrontation ruptures and increasing rupture resolution, suggesting increased volatility, directness and productivity in the therapeutic process across time. Contrary to hypotheses, there was no consistent link between alliance processes and outcome. However, two specific phases were significant. Early treatment ruptures were associated with poor outcome whereas greater late treatment resolution was associated with better outcomes.

Conclusions: This study suggests that alliance processes can differ across treatments and the phases of therapy in psychotherapy for youth with BPD. Alliance ruptures are

more likely to be problematic early in therapy but later in therapy, they appear to be opportunities for therapeutic growth.

Keywords: Alliance, borderline personality disorder, psychotherapy process, rupture and repair, Cognitive Analytic Therapy, psychotherapy

Practitioner Points

- Alliance ruptures are more likely than not to occur in any given session with a young person with Borderline Personality Disorder.
- Early in therapy, withdrawal type ruptures are more frequent, whereas late in therapy, confrontation ruptures are more frequent.
- Late in therapy, alliance ruptures should be viewed as opportunities for therapeutic change, rather than barriers to good outcomes.

Borderline personality disorder (BPD) is a severe mental disorder that is characterised by a pervasive pattern of impulsivity, emotional instability, interpersonal dysfunction and disturbed self-image (Leichsenring, Leibing, Kruse, New, & Leweke, 2011). BPD is associated with a suicide rate around 8% and with high levels of distress and disability and poor long term outcomes in the interpersonal and vocational domains (Gunderson et al., 2011; Oldham, 2006; Pompili, Girardi, Ruberto, & Tatarelli, 2005; Zanarini, Frankenburg, Reich, & Fitzmaurice, 2010). The psychotherapy literature for adults with BPD has blossomed in the last 20 years and a number of efficacious treatments have been developed (Bateman, Gunderson, & Mulder, 2015; Leichsenring et al., 2011; Linehan, 1993; NHMRC, 2012). By contrast, psychotherapy research for adolescents and youth with BPD is in its infancy (Chanen, 2015). This is notable, given that BPD typically has its onset and highest prevalence among young people and that there are good prospects for early intervention (Chanen & McCutcheon, 2013).

It is clear that the quality of the therapeutic relationship is a specific focus for all effective treatments for BPD (Livesley, 2012; McMain, Boritz, & Leybman, 2015; Weinberg, Ronningstam, Goldblatt, Schechter, & Maltsberger, 2011). BPD clients can be challenging to manage as core aspects of their pathology involve instability in interpersonal functioning (Jeung & Herpertz, 2014; Lazarus, Cheavens, Festa, & Rosenthal, 2014; Skodol et al., 2002) and high levels of aggression (Kernberg, 2012). The affective instability that is characteristic of the disorder (Carpenter & Trull, 2013; Nica & Links, 2009) can pose challenges to maintaining consistent treatment processes. BPD is associated with metacognitive deficits including difficulties integrating self states (Semerari et al., 2005, 2014, 2015), and these deficits can impact on the therapeutic alliance (Levy, Beeney, Wasserman, & Clarkin, 2010). Additionally, frequent suicidality, self-harm and other difficult behaviours can pose challenges to the therapeutic process (Bender, 2005; Black, Blum, Pfohl, & Hale, 2004; Pompili et al., 2005; Yeomans et al., 1994). Young people with BPD can be especially challenging to engage, and can have higher rates of dropout from therapy (McCutcheon, Chanen, Fraser, Drew, & Brewer, 2007; Smith, Koenigsberg, Yeomans, Clarkin, & Selzer, 1995; Thormählen, Weinryb, Norén, Vinnars, & Bågedahl-Strindlund, 2003).

In order to better understand therapeutic processes, researchers have examined common mechanisms or principles of change that might occur across different treatment modalities (Castonguay & Beutler, 2006). The most promising example of such a common factor is the therapeutic alliance, which has been defined as the quality of the collaborative relationship between therapist and client (Bordin, 1979). Meta-analyses demonstrate that the alliance is a reliable predictor of outcome across treatments (Horvath, Del Re, Fluckiger, & Symonds, 2011; Martin, Garske, & Davis, 2000).

Additionally, it is clear that the alliance commonly undergoes periods of rupture and repair or strain and resolution, and it has been argued that working through these relational impasses is crucial for treatment retention and also offers an arena for altering maladaptive interpersonal schema (Safran & Muran, 2000). A meta-analysis of data from 148 participants found that the relationship between alliance rupture and repair episodes and therapeutic outcome is statistically significant with a medium effect size (r=.24, Safran, Muran, & Eubanks-Carter, 2011). This meta-analysis was limited by the fact that only three studies (Stevens, Muran, Safran, Gorman, & Winston, 2007; Stiles et al., 2004; Strauss et al., 2006) were identified as being sufficiently rigorous to be included in the analysis. Nevertheless, these findings provide an empirical basis to consider alliance rupture and repair processes as a promising mechanism of therapeutic change.

This is especially relevant in BPD, where alliance ruptures occur frequently (Bender, 2005; Cash, Hardy, Kellett, & Parry, 2013) and can be challenging to address (McMain et al., 2015). There is empirical evidence that individuals with personality disorders have higher rupture intensity early in therapy than those without personality disorders (Tufekcioglu, Muran, Safran, & Winston, 2013).

Stevens and colleagues (2007) stated that in understanding the link between alliance processes and outcome, researchers need to develop models that offer a more nuanced account of the frequency, depth and timing of alliance ruptures. This type of sophisticated analysis appears to be more promising than summary approaches that aggregate process to a single measure of the alliance taken at a session-by-session level. Previous research has examined how fluctuations in within session variables including emotional processing (Kramer, Pascual-Leone, Despland, & de Roten, 2014) and mental state vacillations (Levy et al., 2010) impact on the alliance.

Similarly, in examining alliance rupture and repair, process based research that examines how multiple alliance processes can occur within a single session is likely to provide important insights.

A number of studies have examined how the alliance develops over time in therapy (for a review see Stiles & Goldsmith, 2010). The link between positive outcome and increasing, rather than U-shaped, alliance trajectories has been a key finding (de Roten et al., 2004). Yet, the trajectory of alliance rupture and repair sequences across time in therapy has not yet been investigated.

Further investigation is needed to explore exactly how the process of resolving alliance ruptures might be therapeutic and also whether this process is specific to certain types of treatment. To date, a link between alliance rupture and repair processes has been established in the context of Cognitive Analytic Therapy (CAT; Daly, Llewelyn, McDougall, & Chanen, 2010), Cognitive Behavioural Therapy (CBT; Stiles et al., 2004; Strauss et al., 2006) and Psychodynamic-Interpersonal therapy (Stiles et al., 2004). It is unclear whether this pattern might also apply to a basic supportive therapy like Befriending (Bendall, Killackey, Jackson, & Gleeson, 2003), where the explicit exploration of negative affect and therapy relational processes are avoided.

This study examines alliance processes in a sample of young people who have been diagnosed with BPD. Specifically, it seeks to clarify the dynamics of the alliance rupture and repair process with a focus on CAT (Ryle & Kerr, 2002; Ryle, 1997a). CAT is one of a number of empirically supported treatments for youth with BPD (Chanen et al., 2008; Chanen, Jackson, et al., 2009; Chanen & Thompson, 2014; Chanen, 2015). It is a brief, time-limited treatment that is typically offered for 16-24 sessions (Chanen et al., 2015; Ryle, 1997a). This is consistent with other youth focussed BPD treatments such as Emotion Regulation Training (17 sessions; Schuppert et al., 2009, 2012) and Dialectical Behaviour Therapy for Adolescents (19 sessions: Mehlum et al., 2014).

CAT is well suited to studying alliance processes in young people with BPD for two reasons. First, it places a relational understanding at the heart of its formulation of BPD (Ryle, 1997a, 1997b) and its treatment approach is highly collaborative and focused on the therapeutic relationship (Denman, 2001; Kellett,

2011; Ryle & Kerr, 2002). Secondly, it has a growing body of alliance focused research (Rayner, Thompson, & Walsh, 2010; Shine & Westacott, 2010) and an empirically derived model of rupture resolution (Bennett, Parry, & Ryle, 2006). The model of rupture resolution (see figure one) was developed using a task analysis (Greenberg, 2007) of a combination of poor and good outcome cases of 6 people with BPD.

This study seeks to answer three research questions. First, do alliance processes differ between treatments? The study compares CAT (Ryle & Kerr, 2002) and Befriending (Bendall et al., 2003), which has been selected as a comparison treatment because it controls for common factors, including therapist warmth, time, and client expectancy (Bendall et al., 2003). Additionally, Befriending has an evidence base demonstrating its effectiveness as an intervention in its own right (Jackson et al., 2008; Mead, Lester, Chew-Graham, Gask, & Bower, 2010). It is hypothesised that, given that CAT is a more demanding therapy, it will be associated with a higher number of ruptures than Befriending. It is also hypothesized that, given CAT's active focus on rupture resolution and developed framework for this task (Bennett et al., 2006), ruptures will be associated with more stages of resolution in CAT than in Befriending.

Second, how do alliance processes change across time in therapy? The most common trajectory of the alliance is of linear increase across time (Florsheim, Shotorbani, Guest-Warnick, Barratt, & Hwang, 2000; Kramer, De Roten, Beretta, Michel, & Despland, 2009; Stiles & Goldsmith, 2010). Consequently it is hypothesised that there will be a declining proportion of sessions with a high number of ruptures from early to mid to late treatment sessions. Additionally, it is predicted that the extent to which alliance ruptures are repaired will increase from early to mid to late sessions. Safran and Muran (2000) distinguish between confrontation ruptures, such as attacking the therapist, and withdrawal ruptures, such as becoming minimally responsive. This study will examine how frequent each type of rupture is in the different phases of therapy.

Third, are alliance rupture repair processes associated with therapeutic outcomes? A review found that rupture resolution is positively associated with good outcomes (Safran et al., 2011). It is hypothesised that a higher numbers of ruptures across all phases of therapy will be associated with worse outcomes. It is also

predicted that higher levels of rupture resolution across all phases of therapy will be associated with better outcomes.

Method

Participants

Participants were 44 people (36 female), aged 15-24 (M=18.20, SD=2.81) at baseline assessment, who were consecutive cases drawn from a randomised controlled clinical trial (Chanen et al., 2015) that recruited from a public mental health service with a specialised personality disorders clinic (Chanen, McCutcheon, et al., 2009). Participants were screened using the Structured Clinical Interview for DSM-IV Axis II disorders (SCID-II) Personality Questionnaire (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) and those scoring above 12 were administered a full SCID-II. Inclusion criteria for the present study were: being aged 15-24 and meeting DSM-IV-TR BPD criteria, as assessed by the SCID-II (First et al., 1997). Exclusion criteria were meeting criteria for a first episode psychosis; Bipolar Disorder I or II; psychiatric condition due to a medical condition; or a lifetime Schizophrenia Spectrum Disorder diagnosis.

Twenty-one (48%) of the participants received CAT treatment and within this group, 16 completed treatment and five dropped out of treatment. Twenty-three participants (52%) received befriending treatment, 15 of whom completed treatment and eight of whom dropped out. Overall 29.5% of participants dropped out, with dropout defined as withdrawing from treatment prior to the completion of the eighth session of 16.

The sample demographic data are presented in Table 1. The most common co-morbid diagnoses in the sample were Major Depressive Disorder (77.3%), Post Traumatic Stress Disorder (34.1%), Agoraphobia (34.1%), and Generalised Anxiety Disorder (31.8%).

Treatment

All participants received treatment in a specialised, multi-disciplinary, early intervention service for youth with BPD, known as the Helping Young People Early (HYPE) clinic (Chanen, McCutcheon, et al., 2009). HYPE integrates individual psychotherapy, assertive case management, general psychiatric care, crisis care and

psychosocial recovery (Chanen, McCutcheon, et al., 2009). Families could also be engaged in the case management sessions. In the randomized control trial, participants received 16 sessions of either CAT or Befriending.

CAT

CAT offers a theoretically integrated approach to the treatment of BPD that incorporates object relations theory, cognitive theory and Vygotsky's activity theory (Ryle, 1997a). CAT is a time-limited approach that places a strong focus on collaborative work and was developed for delivery in public health settings (Ryle & Kerr, 2002). CAT treatment is characterized by three overlapping processes: reformulation, recognition and revision (Ryle & Kerr, 2002). Early in therapy, a reformulation is developed collaboratively with the client and presented in diagrammatic and narrative (letter) forms, with the aim of building a shared understanding of the client's situation and an agenda for therapy. This shared formulation is also used to avoid collusive interpersonal interactions between therapists and client, or to recover from these, and to maintain a collaborative stance (Kerr, 2005). During the recognition phase, procedures and patterns that might not have been understood at a fully conscious level are identified. Finally, techniques derived from cognitive therapy and the relational focus of psychoanalytic therapy are used to revise these recurrent problematic interpersonal patterns.

In this study, CAT therapists had advanced training in CAT and came from psychology or social work backgrounds. All five therapists received regular expert supervision in CAT. CAT has been manualised (Ryle & Kerr, 2002; Ryle, 1997a). One of the therapists saw 12 clients, one saw four clients, two saw two clients and one saw one client.

Befriending

Befriending has been used both as an intervention in itself and as a control treatment in RCT research for a range of mental health issues. It has been described as a supportive relationship between two people where regular interactions provide a sense of companionship (Mitchell & Pistrang, 2011). Bendall and colleagues' (2003) Befriending manual specifies one-on-one sessions with the tone of a friendly interaction, directing practitioners to avoid explicit problem solving, or expressing and exploring negative affect. The nine therapists providing befriending in the current

study were provisionally registered psychologists and all received regular supervision to assist with treatment adherence. One of the Befriending therapists saw six clients, one saw five clients, two saw three clients, one saw two clients and four saw one client.

Measures

Rupture identification

Ruptures in the alliance were identified using the observer-based Rupture Resolution Rating System (3RS; Eubanks-Carter, Muran, & Safran, 2009). The 3RS was designed for use by graduate students, and has demonstrated high inter-rater reliability (ICC=0.73-0.96; Coutinho, Ribeiro, Sousa, & Safran, 2014). The rater listens to the entire therapy session and codes a rupture when there is "a deterioration in the alliance between patient and therapist, manifested by a lack of collaboration on tasks or goals or a strain in the emotional bond" (Eubanks-Carter et al., 2009, p. 4).

Ruptures are classified as either being confrontation or withdrawal types. Withdrawal ruptures might involve the client moving away from the therapist, for example by becoming minimally responsive, or, alternatively, moving towards the therapist in a manner that denies the client's experience, for example by engaging in avoidant storytelling. Confrontation ruptures involve the client moving against the therapist, for example by personally attacking the therapist. At the end of the session, the rater also makes a holistic rating on a five-point scale regarding the extent to which ruptures were significant in indicating difficulties in the alliance. According to the 3RS manual the significance rating addresses the extent to which the rupture markers that were present "indicate a strain in the bond and/or a problem with collaboration on tasks and goals."

Resolution rating

Two measures quantified the quality of resolution of ruptures. The first was an adaptation of the observer-based rating procedures described by Daly and colleagues (2010). This involved rating how many of the nine specific stages from the empirically derived CAT model of rupture resolution (Bennett et al., 2006) were present for each rupture that was present (see Figure 1). This approach has demonstrated evidence of inter-rater reliability, as well as construct validity (Daly et

al., 2010). Each session was then summarised using two variables. The average number of stages of resolution for each rupture and the peak number of stages, which was the highest number of stages (up to nine) reached among all the ruptures in a given session.

The second part of the resolution rating form involved using the resolution component of the Rupture Resolution Rating System (3RS; Eubanks-Carter, Muran, & Safran, 2009). The 3RS involves a global assessment of the extent to which ruptures were resolved during the session, which is made on a five-point scale.

BPD symptoms

The Borderline Personality Disorder Severity Index IV (BPDSI-IV; Arntz et al., 2003) is a semi-structured interview that measures each of the nine DSM-IV BPD criteria and yields a quantitative rating to assess overall BPD severity. The measure demonstrates strong internal consistency (alpha=0.85), as well as discriminant, concurrent and construct validity (Giesen-Bloo, Wachters, Schouten, & Arntz, 2010).

Social functioning

The Social Adjustment Scale - Self Report (SAS-SR Weissman & Bothwell, 1976) is a 54 item self-report measure that is rated on a five-point scale, with higher scores indicating greater impairment. It measures functioning in six domains: Primary Relationship, Work, Social and Leisure, Extended Family, Parental and Family Unit. A total score is calculated by averaging all applicable items. Previous studies have demonstrated adequate internal consistency for overall scores (alpha=0.74) as well as good temporal stability over a two-week period (Edwards, Yarvis, Muellller, Zingale, & Wagman, 1978) and evidence of concurrent validity in differentiating between depressed and normal populations (Weissman, Prusoff, Thompson, Harding, & Myers, 1978).

Procedure

The project was approved by the Melbourne Health Human Research and Ethics Committee.

Selection of sessions

For the purposes of quantifying rupture and repair processes, an early treatment session, session three, was selected for CAT and Befriending participants. This is consistent with common practice in measuring the alliance (de Roten et al., 2004), and allows for sufficient time for the relationship to begin to develop.

CAT is a treatment with a clear relational focus and procedures for addressing ruptures in the alliance and consequently this treatment was the focus of the study, and sessions were selected across the phases of treatment for the CAT group only. Session 15, which was the penultimate session, was selected as a representative late treatment session to capture the late therapy process without including the final session of therapy, which might involve different processes. Session nine was selected as a mid-treatment session as this was equidistant from the early and late treatment sessions. When sessions were counted but not recorded, or when the participants dropped out before the requisite session occurred, session selection procedures developed prior to the study were applied.

Rating sessions

Sessions were rated using audio recordings of sessions. Rater training involved reading and discussing relevant references and manuals (Bennett et al., 2006; Daly et al., 2010; Daly, 2008; Eubanks-Carter et al., 2009; Muran, Safran, & Eubanks-Carter, 2010; Samstag, Muran, & Safran, 2004), followed by a period of joint and then separate rating of sessions not used in the study until adequate reliability was achieved. Rupture and resolution processes were rated separately. Sixteen sessions (23% of the final sample) were rated for ruptures by two independent trained raters (EG and BM). Resolution ratings could only be made for sessions where at least one rupture was present. Twelve sessions (31% of the total sessions rated for resolution status) were rated by the primary rater (EG) and six each by two other raters (RR and TW). Session audio was de-identified so that the raters were not informed of the participant's identity, session number or therapy type. Inter-rater reliability co-efficients ranged from 0.64-0.90 indicating good to excellent reliability, intra-class correlation was used for all variables with the exception of type of rupture (confrontation or withdrawal), which is a categorical variable so Cohen's Kappa was used (Fleiss, 1981; Landis & Koch, 1977).

Results

Data preparation and analysis

Several variables collected were not normally distributed. Consequently, authors followed Tabachnick & Fidell's (2007) directions for transforming distributions with skewness and kurtosis in order that distributions could more closely approximate normality and statistical tests would be more robust. Following transformation, no univariate outliers were detected.

Missing data

All baseline client characteristics were complete. All observer-based process ratings were complete with the exception of two late therapy sessions, where a recording was not available either due to non-attendance or technical recording issues. For the outcome measures the overall completion rate was 90%.

Missing outcome data were addressed using the closest match approach. For each case with a missing six-month outcome measure, the closest match is the case with the lowest sum of absolute differences across baseline and 3-month assessments. In these cases, the six-month score for the closest match case on the relevant measure replaces the missing data. This approach has been demonstrated to be highly effective in repeated measures psychiatric research (Pringle, Harmer, & Cooper, 2010) and to be superior to common approaches, such as listwise deletion, regression imputation and last value carried forward (Elliott & Hawthorne, 2005).

Frequency of ruptures

At least one rupture was evident in 39 (53%) of the 74 sessions in the overall study. There was at least one rupture in 31 (61%) of the 51 CAT sessions and in 8 (35%) of the 23 befriending sessions. The distribution of rupture frequencies was positively skewed, representing the fact that most sessions involve few or no ruptures whereas a small number involved a large number of ruptures.

Comparison between CAT and befriending

In order to determine whether different relational processes were evident in the two treatment conditions, a series of independent samples t-tests were performed (see Table 2).

Comparisons were made based only on early treatment sessions, as this was the only time point where ratings were made for both groups. Contrary to the hypothesis predicting a greater number of ruptures in CAT sessions, there was no statistically significant difference between the groups in terms of the number of ruptures evident.

The hypothesis that there would be a higher number of resolution stages present in CAT, compared with Befriending was supported, as shown in Table 2. There were a greater number of average stages in the resolution model and higher peak number of resolution stages reached in the CAT session, compared with befriending sessions.

Alliance processes across time in therapy

To examine the trajectory in terms of number of ruptures across time in therapy, sessions were classified as having either a low (0 ruptures), moderate (1-2 ruptures) or high (3 or more ruptures) number of ruptures. The proportions for each of these categories are presented in Table 3. A chi-squared test indicated that there was a statistically significant relationship between phase of therapy and number of ruptures ($\chi^2(4)=11.23$, $p<.05$, Cramer's $V=.28$). The hypothesis that there would be a decreasing proportion of sessions with a high number of ruptures was not supported, with results indicating an increasing proportion of sessions with a high number of ruptures, across time in therapy.

It was hypothesised that the degree to which alliance ruptures are resolved would increase across time in therapy. This was operationalised as the average number of stages of the resolution model (Bennett et al., 2006) evident in each session, and sessions were classified according to whether the average resolution was low (1 or less stages on average) or high (more than one stage). In early treatment the ratio of low to high resolution sessions was 53% to 47%, in mid treatment 15% of sessions were low resolution and 85% high resolution and in late treatment, 100% of sessions were rated as high resolution. Consistent with the hypothesis, a chi-squared test indicates that across time in therapy, there was a higher proportion of high resolution sessions, involving several stages of rupture resolution ($\chi^2(2)=9.73$, $p<.05$, Cramer's $V=.50$).

In the CAT completion group, the type of ruptures also varied across time. Figure 2 shows an increasing proportion of confrontation ruptures and reduced proportion of withdrawal ruptures. A chi-square test indicated that there was a statistically significant interaction between type of rupture and time of treatment ($\chi^2(2)=6.18$, $p<.05$, Cramer's $V=.26$), reflecting the growing proportion of confrontation ruptures across time.

Alliance processes and therapeutic change

It was hypothesised that more ruptures across all stages of therapy would be associated with poorer outcomes and that higher levels of rupture resolution would be associated with better outcomes across all phases of therapy.

Change scores were calculated by subtracting baseline scores from post treatment (6 month follow up scores). A Pearson's correlation was calculated between a range of rupture and resolution related variables and symptomatic and functional change to assess whether these alliance processes were associated with therapeutic change. The results for alliance ruptures and resolution are presented in Table 4.

The hypotheses were only partially supported as there was no consistent pattern across time and most correlations were not in the statistically significant range. Higher numbers of ruptures in early sessions were significantly associated with poorer outcomes in social functioning.

Results suggested that, in late sessions, greater resolution, in terms of both average stages of the resolution model and peak stages reached, was strongly associated with reductions in BPD symptoms. Overall, the direction of the results was consistent with the hypotheses. However, the results were not consistent across time in therapy.

Discussion

This novel study of alliance rupture resolution found that alliance rupture and resolution processes can differ to some extent between CAT and Befriending while also demonstrating a degree of overlap. The data demonstrated that across time in CAT, there were more alliance ruptures, more confrontation ruptures and a greater level of rupture resolution. Findings indicated that there was no consistent relationship between alliance processes and therapy outcome, however, early ruptures

were associated with poorer outcomes and greater resolution of ruptures late in therapy was associated with superior therapy outcomes.

The results of this study reinforce previous findings suggesting that ruptures in the alliance are frequent when measured from the perspective of a third-party observer (Eames & Roth, 2000; Muran et al., 2009). Ruptures occurred in the majority of sessions, although the rates of 53% of overall sessions and 61% of CAT sessions are lower than the rate of 77% reported by Sommerfeld and colleagues (2008). Psychodynamically oriented therapy was offered in Sommerfeld's (2008) study, whereas the current study involved CAT and Befriending. Previous research has demonstrated that different therapies can be associated with different rupture frequencies (Muran et al., 2009).

Broadly speaking, the present findings reinforce previous findings that different alliance rupture and repair processes can occur within different treatments (Baillargeon, Cote, & Douville, 2012; Muran et al., 2009; Stiles et al., 2004). The lack of a statistically significant difference in terms of number of ruptures is an interesting and unexpected finding. It suggests that ruptures might be an inevitable aspect of working with young clients with BPD. The relational instability that is characteristic of BPD (Lazarus et al., 2014; Skodol et al., 2002) appears to manifest in the therapeutic relationship, regardless of the mode of therapy. The finding that ruptures were evident in a less demanding intervention like Befriending, reinforces the view that ruptures can be expected across BPD interventions.

The finding of greater rupture resolution in CAT is consistent with a number of task analytic studies that have demonstrated that different approaches to addressing ruptures in different treatments (Bennett et al., 2006; Cash et al., 2013; Safran, 1993). For example, cognitive behavioural therapies are associated with strategies such as validation and revising therapeutic tasks (Aspland, Llewelyn, Hardy, Barkham, & Stiles, 2008), whereas in CAT, there is more focus on directly exploring the rupture and linking it to the shared reformulation of the client's patterns (Bennett et al., 2006). In measuring the number of stages of resolution in the present study, a CAT specific model of rupture resolution was used (Bennett et al., 2006). Therefore, it is not surprising that CAT therapists achieved more stages of this model than Befriending therapists. Nevertheless, it is worth noting that, despite being advised not to work through negative emotions, Befriending therapists often did achieve some level of

resolution and, at times, worked through a small number of stages of resolution, including firstly acknowledging the rupture.

The ability of this study to examine the alliance processes across different phases of therapy was a design strength that yielded interesting findings. It was evident that the proportion of sessions with a high number of ruptures increased from early to mid to late therapy, which was opposite to the predicted pattern. The findings indicated that the extent of resolution also increased over time and this trend was consistent with the hypothesis. Taken together, these findings point to increased levels of volatility in the relationship with concomitant increased productivity in addressing alliance strains.

This study's data suggest that the typical pattern of alliance stability or linear growth found in many studies (Florsheim et al., 2000; Kramer et al., 2009; Stiles & Goldsmith, 2010), might in fact obscure an underlying process of therapeutic progress marked by increased ruptures and resolution across time in therapy. This underscores the benefits of examining within-session therapy processes. Nevertheless, further evidence is required to replicate this pattern in a variety of contexts beyond youth with BPD, and ideally this research will involve rating each therapy session. The findings of this study contrast with those of Westra, Constantino and Aviram (2011) who reported that the proportion of clients experiencing ruptures reduced across time. This might be attributable to the different treatment model and client population, with Westra and colleagues examining an eight-session CBT treatment for generalized anxiety disorder. It might also be attributable to the method of that study, which defined ruptures by fluctuations in alliance scores, rather than using an observer-based method, as in the present study.

The type of ruptures identified in the present study also changed across time, with early sessions characterised by more withdrawal ruptures and later sessions associated with more confrontation ruptures. This suggests that not only do more ruptures occur with time but that clients are better able to express their dissatisfaction or distress in a direct manner. This might be particularly characteristic of a youth population, who might have some difficulty engaging in therapy in the early phase (Constantino et al., 2010; Crawford et al., 2009; Johnson, Mellor, & Brann, 2009). The differences in types of ruptures that predominate in the different phases of therapy is particularly notable in light of the evidence that withdrawal and

confrontation ruptures are typically resolved in different manners (Muran et al., 2010; Safran & Muran, 1996, 2000). This suggests that therapists' modes of responding to ruptures might also need to evolve across time in therapy.

Contrary to our hypotheses, the results of this study did not provide a consistent pattern of associations between alliance rupture and repair processes and outcome. This contrasts with previous studies that found a link between rupture resolution and positive outcome (Daly et al., 2010; McLaughlin, Keller, Feeny, Youngstrom, & Zoellner, 2014; Muran et al., 2009; Safran et al., 2011). However, the associations that were demonstrated in this study point to some important therapeutic dynamics. Correlational findings suggested that the experience of a higher number of ruptures in early sessions was associated with a poorer outcome, whereas a higher number of stages of resolution late in therapy was associated with better outcomes.

It is also possible that the significant correlation between rupture resolution and positive outcome was limited to late sessions, as these sessions were the most proximal to the post-therapy outcome assessment. It might be that resolution in early and middle sessions was associated with therapeutic change but that this effect attenuated over time and was not evident at six month follow up. This is supported by other studies where alliance processes have been linked to the more proximal, session level outcomes (Crits-Cristoph, Gibbons, Hamilton, Ring-Kurtz, & Gallop, 2011; Falkenström, Granström, & Holmqvist, 2013).

The results suggest that therapists should expect alliance ruptures to occur relatively frequently and that this process is unlikely to be uniform across time. A greater number of early therapy ruptures were associated with poorer outcomes on social and occupational functioning. This is consistent with Muran and colleagues (2009) study of personality disorders, which found that higher early rupture intensity was associated with poorer outcomes on interpersonal functioning. Given other evidence that has demonstrated that unresolved ruptures are predictive of poor outcomes (McLaughlin et al., 2014) but resolved ruptures can predict better outcomes (Safran et al., 2011), the number of ruptures might not be the only important variable.

Nevertheless, the present study's findings suggest that limiting the number of early ruptures might be a fruitful approach. Other studies have suggested that this could be achieved by such techniques as working on expectations (Connolly-Gibbons

et al., 2003), formulating personally meaningful goals (Diamond, Liddle, Hogue, & Dakof, 1999), and the therapist taking up a flexible and warm stance (Ackerman & Hilsenroth, 2003). To the extent that these techniques minimize the incidence of early ruptures in the alliance, they are supported by the findings of the current study. Results also suggest that in the early phase, it is particularly important to focus on withdrawal type ruptures, where clients might express their dissatisfaction indirectly. These might be addressed by exploring the client's avoidance and assisting them to recognise the underlying wish or need that they might be struggling to express (Muran et al., 2010; Safran & Muran, 2000).

By contrast, in later stages of therapy, this study's findings suggests that therapists should expect more ruptures but they need not focus on blocking them. Rather, they should emphasise actively working to resolve ruptures as a central technique that can catalyse therapeutic change. During this stage, confrontation ruptures might be particularly prevalent and challenging. However the data do not support the view that these ruptures are predictive of negative outcomes. If addressed proactively, these rupture markers might be seen as opportunities for deeper therapeutic engagement.

The findings need to be interpreted within the limitations of the study. The sample was a relatively small one, which can cause problems in terms of the reliability of findings. The dropout rate of 29.5%, is slightly higher than the overall estimate for dropout rate of 25% found in a meta-analytic review of treatments for BPD (Barnicot, Katsakou, Marougka, & Priebe, 2011). Participants were 82% female, which is a gender imbalance that may limit the generalizability of findings. One therapist saw 57% of CAT clients, which might complicate the interpretation of whether findings relate to CAT as a treatment of to therapist effects.

The correlational design of the study prevents the drawing of causal inferences regarding the relationship between alliance processes and outcome. Comparisons between CAT and Befriending were limited to early therapy sessions and were not made across all the phases of therapy. The therapy sessions in the present study were audio recordings that were not transcribed and did not involve video recordings, which have been used in some previous studies of alliance processes (McEwan, 2005). This limited the raters' access to non-verbal cues, including body language and necessitated a focus on language, tone and the prosodic qualities of speech (Leiman &

Stiles, 2001). Although this approach was uniform across all ratings, elements of the interaction might have been missed by this form of audio analysis and future research should incorporate video recordings, in order to maximize the proximity of ratings to the actual therapeutic interaction.

Additionally, it would be helpful for future research to continue to compare alliance rupture and repair processes across different treatments. This can be advanced using quantitative methods and also by analysing ruptures qualitatively and then coding their features. Investigations of predictors or moderators of alliance processes should also include patient factors such as impulsivity and dysregulation (Tufekcioglu et al., 2013), or metacognitive deficits (Semerari et al., 2005, 2014, 2015), and how these may be addressed therapeutically in order to foster strong alliances (Dimaggio, Montano, Popolo, & Salvatore, 2015).

This study is the first, to the authors' knowledge, to utilise an observer-based approach to measuring alliance rupture and repair processes, to examine how these processes unfold across time in therapy. Results suggest an increasingly volatile, direct and productive relational process across the phases of therapy in CAT for young people with BPD. The phase specific relationship of alliance processes and outcome has implications for therapists, suggesting that they should attend to ruptures and seek to minimize ruptures early in therapy. By contrast, late ruptures should not be seen as indicative of negative processes, but rather should be conceptualised as important opportunities for therapeutic change.

References

Ackerman, S. J., & Hilsenroth, M. J. (2003). A review of therapist characteristics and techniques positively impacting the therapeutic alliance. Clinical Psychology Review, 23, 1–33.

Arntz, A., Van Den Hoorn, M., Cornelis, J., Verheul, R., Van Den Bosch, W. M. C., & De Bie, A. J. H. T. (2003). Reliability and validity of the borderline personality disorder severity index. Journal of Personality Disorders, 17(1), 45–59.

Aspland, H., Llewelyn, S., Hardy, G. E., Barkham, M., & Stiles, W. (2008). Alliance ruptures and rupture resolution in cognitive-behavior therapy: a preliminary task analysis. Psychotherapy Research, 18(6), 699–710.

Baillargeon, P., Cote, R., & Douville, L. (2012). Resolution process of therapeutic alliance ruptures: A review of the literature. Psychology, 3(12), 1049–1058.

Barnicot, K., Katsakou, C., Marougka, S., & Priebe, S. (2011). Treatment completion in psychotherapy for borderline personality disorder: a systematic review and meta-analysis. Acta Psychiatrica Scandinavica, 123(5), 327–338.

Bateman, A., Gunderson, J., & Mulder, R. (2015). Treatment of personality disorder. The Lancet, 385, 735–743.

Bendall, S., Killackey, E., Jackson, H. J., & Gleeson, J. (2003). Befriending manual. Melbourne Australia: Orygen Research Centre.

Bender, D. S. (2005). The therapeutic alliance in the treatment of personality disorders. Journal of Psychiatric Practice, 11(2), 73–87.

Bennett, D., Parry, G., & Ryle, A. (2006). Resolving threats to the therapeutic alliance in cognitive analytic therapy of borderline personality disorder: a task analysis. Psychology and Psychotherapy, 79(3), 395–418.

Black, D. W., Blum, N., Pfohl, B., & Hale, N. (2004). Suicidal behavior in borderline personality disorder: prevalence, risk factors, prediction, and prevention. Journal of Personality Disorders, 18(3), 226–239.

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. Psychotherapy Theory Research Practice, 16(3), 252–260.

Carpenter, R. W., & Trull, T. J. (2013). Components of emotion dysreguation in borderline personality disorder. Current Psychiatry Reports, 15(1), 335.

Cash, S. K., Hardy, G. E., Kellett, S., & Parry, G. (2013). Alliance ruptures and resolution during cognitive behaviour therapy with patients with borderline personality disorder. Psychotherapy Research.

Castonguay, L. G., & Beutler, L. E. (2006). Principles of therapeutic change: a task force on participants, relationships, and techniques factors. Journal of Clinical Psychology, 62(6), 631–638.

Chanen, A. M. (2015). Borderline personality disorder in young people: Are we there yet? Journal of Clinical Psychology, 71, 778–791.

Chanen, A. M., Jackson, H., Cotton, S. M., Gleeson, J., Davey, C. G., Betts, J., … McCutcheon, L. (2015). Comparing three forms of early intervention for youth with borderline personality disorder (the MOBY study): Study protocol for a randomised controlled trial. Trials, 16, 476–486.

Chanen, A. M., Jackson, H. J., McCutcheon, L. K., Jovev, M., Dudgeon, P., Yuen, H. P., … McGorry, P. D. (2008). Early intervention for adolescents with borderline personality disorder using cognitive analytic therapy: randomised controlled trial. The British Journal of Psychiatry, 193(6), 477–484.

Chanen, A. M., Jackson, H. J., McCutcheon, L. K., Jovev, M., Dudgeon, P., Yuen, H. P., … McGorry, P. D. (2009). Early intervention for adolescents with borderline personality disorder: quasi-experimental comparison with treatment as usual. The Australian and New Zealand Journal of Psychiatry, 43(5), 397–408.

Chanen, A. M., & McCutcheon, L. K. (2013). Prevention and early intervention for borderline personality disorder: Current status and recent evidence. The British Journal of Psychiatry, 202, s24–s29.

Chanen, A. M., McCutcheon, L. K., Germano, D., Nistico, H., Jackson, H. J., & McGorry, P. D. (2009). The HYPE clinic: An early intervention service for Borderline Personality Disorder. Journal of Psychiatric Practice, 15, 163–172.

Chanen, A. M., & Thompson, K. (2014). Preventive strategies for borderline personality disorder in adolescents. Current Treatment Options in Psychiatry, 1, 358–368.

Connolly-Gibbons, M. B., Crits-Cristoph, P., de la Cruz, J. P., Barber, J. P., Siqueland, L., & Gladis, M. (2003). Pretreatment expectations, interpersonal functioning, and symptoms in the prediction of the therapeutic alliance across supportive-expressive psychotherapy and cognitive therapy. Psychotherapy Research, 13(1), 59–76.

Constantino, M. J., Castonguay, L. G., Zack, L. G., & DeGeorge, J. (2010). Engagement in psychotherapy: Factors contributing to the facilitation, demise and restoration of the therapeutic alliance. In D. Castro-Blanco & M. S. Carver (Eds.), Elusive alliance: Treatment engagement strategies with high-risk adolescents (pp. 199–209). Washington, DC: American Psychological Association.

Coutinho, J., Ribeiro, E., Sousa, I., & Safran, J. D. (2014). Comparing two methods of identifying alliance rupture events. Psychotherapy, 51(3), 434–442.

Crawford, M. J., Price, K., Gordon, F., Josson, M., Taylor, B., Bateman, A., … Moran, P. (2009). Engagement and retention in specialist services for people with personality disorder. Acta Psychiatrica Scandinavica, 119, 304–311.

Crits-Cristoph, P., Gibbons, M. B. C., Hamilton, J., Ring-Kurtz, S., & Gallop, R. (2011). The Dependability of Alliance Assessments: The Alliance–Outcome Correlation Is Larger Than You Might Think. Journal of Consulting and Clinical Psychology, 79(3), 267–278.

Daly, A. M. (2008). Rupture resolution in cognitive analytic therapy for adolescents at risk of borderline personality disorder. (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses Database.

Daly, A. M., Llewelyn, S., McDougall, E., & Chanen, A. M. (2010). Rupture resolution in cognitive analytic therapy for adolescents with borderline personality disorder. Psychology and Psychotherapy, 83(3), 273–288.

de Roten, Y., Fischer, M., Drapeau, M., Beretta, V., Kramer, U., Favre, N., & Despland, J.-N. (2004). Is one assessment enough?: Patterns of helping alliance development and outcome. Clinical Psychology and Psychotherapy, 11, 324–331.

Denman, C. (2001). Cognitive-analytic therapy. Advances in Psychiatric Treatment, 7(4), 243–252.

Diamond, G. M., Liddle, H. A., Hogue, A., & Dakof, G. A. (1999). Alliance-building interventions with adolescents in family therapy: A process study. Psychotherapy: Theory, Research, Practice, Training, 36(4), 355–368.

Dimaggio, G., Montano, A., Popolo, R., & Salvatore, G. (2015). Metacognitive interpersonal therapy for personality disorders: A treatment manual. New York, NY: Routledge.

Eames, V., & Roth, A. (2000). Patient attachment orientation and the early working alliance-a study of patient and therapist reports of alliance quality and ruptures. Psychotherapy Research, 10(4), 421–434.

Edwards, D., Yarvis, R., Muelller, D., Zingale, H., & Wagman, W. (1978). Test-Taking and the Stability of Adjustment Scales Can We Assess Patient Deterioration? Evaluation Review, 2(2), 275–291.

Elliott, P., & Hawthorne, G. (2005). Imputing missing repeated measures data: How should we proceed? Australian and New Zealand Journal of Psichiatry, 39, 575–582.

Eubanks-Carter, C., Muran, J. C., & Safran, J. D. (2009). Rupture resolution rating system (3RS): Manual. New York: Beth Israel Medical Centre.

Falkenström, F., Granström, F., & Holmqvist, R. (2013). Therapeutic Alliance Predicts Symptomatic Improvement Session by Session. Journal of Counseling Psychology, 60(3), 317–328.

First, M. B., Gibbon, M., Spitzer, R. L., Williams, J. B. W., & Benjamin, L. S. (1997). *User's guide for the structured clinical interview for DSM*-IV Axis II personality disorders. Washington, DC: American Psychiatric Press.

Fleiss, J. L. (1981). Statistical methods for rates and proportions (2nd ed.). New York: Wiley.

Florsheim, P., Shotorbani, S., Guest-Warnick, G., Barratt, T., & Hwang, W. C. (2000). Role of working alliance in the treatment of delinquent boys in community-based programs. Journal of Clinical Child Psychology, 29(1), 94–107.

Giesen-Bloo, J. H., Wachters, L. M., Schouten, E., & Arntz, A. (2010). The Borderline Personality Disorder Severity Index-IV: Psychometric evaluation and

dimensional structure. Personality and Individual Differences, 49(2), 136–141.

Greenberg, L. S. (2007). A guide to conducting a task analysis of psychotherapeutic change. Psychotherapy Research, 17(1), 15–30.

Gunderson, J. G., Stout, R. L., McGlashan, T. H., Shea, M. T., Morey, L. C., Grilo, C. M., … Skodol, A. E. (2011). Ten-year course of borderline personality disorder: Psychopathology and function from the Collaborative Longitudinal Personality Disorders Study. Archives of General Psychiatry, 68(8), 827–837.

Horvath, A. O., Del Re, A. C., Fluckiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. Psychotherapy, 48(1), 9–16.

Jackson, H. J., McGorry, P. D., Killackey, E., Bendall, S., Allott, K., Dudgeon, P., … Harrigan, S. (2008). Acute-phase and 1-year follow-up results of a randomized controlled trial of CBT versus Befriending for first-episode psychosis: the ACE project. Psychological Medicine, 38(5), 725–735.

Jeung, H., & Herpertz, S. C. (2014). Impairments of interpersonal functioning: empathy and intimacy in borderline personality disorder. Psychopathology, 47(4), 220–234.

Johnson, E., Mellor, D., & Brann, P. (2009). Factors associated with dropout and diagnosis in child and adolescent mental health services. Australian and New Zealand Journal of Psychiatiry, 43, 431–437.

Kellett, S. (2011). Cognitive Analytic Therapy. In C. Feltham & I. Horton (Eds.), Handbook of counselling and psychotherapy. London, UK: Sage.

Kernberg, O. F. (2012). The inseparable nature of love and aggression: Clinical and theoretical perspectives. Arlington, VA: American Psychiatric Publishing.

Kerr, I. B. (2005). Cognitive Analytic Therapy. Psychiatry, 4(5), 28–33.

Kramer, U., De Roten, Y., Beretta, V., Michel, L., & Despland, J.-N. (2009). Alliance patterns over the course of short-term dynamic psychotherapy: the shape of productive relationships. Psychotherapy Research, 19(6), 699–706.

Kramer, U., Pascual-Leone, A., Despland, J. N., & de Roten, Y. (2014). Emotion in an alliance rupture and resolution sequence: A theory-building case study. Counselling and Psychotherapy Research, 14(4), 263–271.

Landis, J. R., & Koch, G. G. (1977). The measurement of observor agreement for

categorical data. Biometrics, 33(1), 159–174.

Lazarus, S. A., Cheavens, J. S., Festa, F., & Rosenthal, M. Z. (2014). Interpersonal functioning in borderline personality disorder: A systematic review of behavioral and laboratory-based assessments. Clinical Psychology Review, 34(3), 193–205.

Leichsenring, F., Leibing, E., Kruse, J., New, A. S., & Leweke, F. (2011). Borderline Personality Disorder. Lancet, 377, 74–84.

Leiman, M., & Stiles, W. B. (2001). Dialogical sequence analysis and the zone of proximal development as conceptual enhancements to the assimilation model: The case of Jan revisited. Psychotherapy Research, 11(3), 311–330.

Levy, K. N., Beeney, J. E., Wasserman, R. H., & Clarkin, J. F. (2010). Conflict begets conflict: Executive control, mental state vacillations, and the therapuetic alliance in treatment of borderline personality disorder. Psychotherapy Research, 20(4), 413–422.

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

Livesley, W. J. (2012). Integrated treatment: a conceptual framework for an evidence-based approach to the treatment of personality disorder. Journal of Personality Disorders, 26(1), 17–42.

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: a meta-analytic review. Journal of Consulting and Clinical Psychology, 68(3), 438–450.

McCutcheon, L. K., Chanen, A. M., Fraser, R. J., Drew, L., & Brewer, W. (2007). Tips and techniques for engaging and managing the reluctant, resistant or hostile young person. Medical Journal of Australia, 187, S64–S67.

McEwan, J. (2005). Repairing therapeutic alliance ruptures: An evaluation of observer-rated rupture and repair processes, cleitn and therapist alliance, and outcome. Unpublished doctoral dissertation, Long Island University, Brooklyn, New York.

McLaughlin, A. A., Keller, S. M., Feeny, N. C., Youngstrom, E. A., & Zoellner, L. A. (2014). Patterns of therapeutic alliance: Rupture–repair episodes in prolonged exposure for posttraumatic stress disorder. Journal of Consulting and Clinical

Psychology, 82(1), 112–121.

McMain, S. F., Boritz, T. Z., & Leybman, M. J. (2015). Common strategies for cultivating a positive therapy relationship in the treatment of borderline personality disorder. Journal of Psychotherapy Integration, 25(1), 20–29.

Mead, N., Lester, H., Chew-Graham, C., Gask, L., & Bower, P. (2010). Effects of befriending on depressive symptoms and distress: systematic review and meta-analysis. The British Journal of Psychiatry, 196(2), 96–101.

Mehlum, L., Tormoen, A., Ramberg, M., Haga, E., Diep, L., Laberg, S., … Groholt, B. (2014). Dialectical behavior therapy for adolescents with recent and repeated self-harming behavior and borderline traits - First randomized controlled trial. Journal of the American Academy of Child and Adolescent Psychiatry, 53(10), 1082–1091.

Mitchell, G., & Pistrang, N. (2011). Befriending for mental health problems: Processes of helping. Psychology and Psychotherapy, 1(2), 151–169.

Muran, J. C., Safran, J. D., & Eubanks-Carter, C. (2010). Developing therapist abilities to negotiate alliance ruptures. In J. C. Muran & J. P. Barber (Eds.), The therapeutic alliance: An evidence based guide to practice (pp. 320–340). New York: Guilford Press.

Muran, J. C., Safran, J. D., Gorman, B. S., Samstag, L. W., Eubanks-Carter, C., & Winston, A. (2009). The relationship of early alliance ruptures and their resolution to process and outcome in three time-limited psychotherapies for personality disorders. Psychotherapy: Theory Research Practice Training, 46(2), 233–248.

NHMRC. (2012). Clinical practice guideline for the management of borderline personality disorder. Melbourne: National Health and Medical Research Council.

Nica, E. I., & Links, P. S. (2009). Affective instability in borderline personality disorder: Experience sampling findings. Current Psychiatry Reports, 11(1), 74–81.

Oldham, J. M. (2006). Borderline personality disorder and suicidality. The American Journal of Psychiatry, 163(1), 20–26.

Pompili, M., Girardi, P., Ruberto, M., & Tatarelli, R. (2005). Suicide in borderline personality disorder: A meta-analysis. Nordic Journal of Psychiatry, 59, 319–324.

Pringle, A., Harmer, C. J., & Cooper, M. J. (2010). Investigating vulnerability to eating disordes: biases in emotional processing. Psychological Medicine, 40, 645–655.

Rayner, K., Thompson, A. R., & Walsh, S. (2010). Clients' experience of the process of change in cognitive analytic therapy. Psychology and Psychotherapy, 84(3), 299–313.

Ryle, A. (1997a). Cognitive analytic therapy and borderline personality disorder: The model and the method. Chichester, UK: Wiley and Sons.

Ryle, A. (1997b). The structure and development of borderline personality disorder: a proposed model. The British Journal of Psychiatry, 170, 82–87.

Ryle, A., & Kerr, I. B. (2002). Introducing Cognitive Analytic Therapy: Principles and practice. Chichester, UK: John Wiley & Sons.

Safran, J. D. (1993). Breaches in the therapeutic alliance: An arena for negotiating authentic relatedness. Psychotherapy Theory Research Practice Training, 30(1), 11–24.

Safran, J. D., & Muran, J. C. (1996). The resolution of ruptures in the therapeutic alliance. Journal of Consulting and Clinical Psychology, 64(3), 447–458.

Safran, J. D., & Muran, J. C. (2000). Negotiating the therapeutic alliance: A relational treatment guide. New York: The Guilford Press.

Safran, J. D., Muran, J. C., & Eubanks-Carter, C. (2011). Repairing alliance ruptures. Psychotherapy, 48(1), 80–87.

Samstag, L. W., Muran, J. C., & Safran, J. D. (2004). Defining and identifying alliance ruptures. In D. Charman (Ed.), Core processes in brief psychodynamic psychotherapy (pp. 187–214). Hillsdale, NJ: Erlbaum.

Samstag, L. W., Safran, J. D., & Muran, J. C. (2006). The rupture resolution scale and coding manual. Unpublished Manuscript.

Schuppert, H. M., Giesen-Bloo, J., Van Gemert, T. G., Wiersema, H. M., Minderaa, R. B., Emmelkamp, P. M. G., & Nauta, M. H. (2009). Effectiveness of an

emotion regulation group training for adolescents: A randomized controlled pilot study. Clinical Psychology & Psychotherapy, 16(6), 467–478.

Schuppert, H. M., Timmerman, M. E., Bloo, J., van Gemert, T. G., Wiersema, H. M., Mineraa, R. B., … Nauta, M. H. (2012). Emotion regulation training for adolescents with borderline personality disorder traits: A randomized controlled trial. Journal of the American Academy of Child & Adolescent Psychiatry, 51, 1314–1323.

Semerari, A., Carcione, A., Dimaggio, G., Nicoló, G., Pedone, R., & Procacci, M. (2005). Metarepresentative functions in borderline personality disorder. Journal of Personality Disorders, 19(6), 690–710.

Semerari, A., Colle, L., Pellecchia, G., Buccione, I., Carcione, A., Dimaggio, G., … Pedone, R. (2014). Metacognitive dysfunctions in personality disorders: Correlations with disorder severity and personality styles. Journal of Personality Disorders, 28, 751–766.

Semerari, A., Colle, L., Pellecchia, G., Carcione, A., Conti, L., Fiore, D., … Pedone, R. (2015). Personality disorders and mindreading: Specific impairments in patients with borderline personality disorder compared to other PDs. Journal of Nervous and Mental Disease, 203(8), 626–631.

Shine, L., & Westacott, M. (2010). Reformulation in cognitive analytic therapy: effects on the working alliance and the client's perspective on change. Psychology and Psychotherapy, 83, 161–177.

Skodol, A. E., Gunderson, J. G., McGlashan, T. H., Dyck, I. R., Stout, R. L., Bender, D. S., … Oldham, J. M. (2002). Functional impairment in patients with schizotypal, borderline, avoidant, or obsessive-compulsive personality disorder. The American Journal of Psychiatry, 159(2), 276–83.

Smith, T. E., Koenigsberg, H. W., Yeomans, F. E., Clarkin, J. F., & Selzer, M. A. (1995). Predictors of dropout in psychodynamic psychotherapy of borderline personality disorder. Journal of Psychotherapy Practice and Research, 4(3), 205–213.

Sommerfeld, E., Orbach, I., Zim, S., & Mikulincer, M. (2008). An in-session exploration of ruptures in working alliance and their associations with clients' core conflictual relationship themes, alliance-related discourse, and clients'

postsession evaluations. Psychotherapy Research, 18(4), 377–388.

Stevens, C. L., Muran, J. C., Safran, J. D., Gorman, B. S., & Winston, A. (2007). Levels and patterns of the therapeutic alliance in brief psychotherapy. American Journal of Psychotherapy, 61(2), 109–129.

Stiles, W. B., Glick, M. J., Osatuke, K., Hardy, G. E., Shapiro, D. A., Agnew-Davies, R., … Barkham, M. (2004). Patterns of Alliance Development and the Rupture-Repair Hypothesis: Are Productive Relationships U-Shaped or V-Shaped? Journal of Counseling Psychology, 51(1), 81–92.

Stiles, W. B., & Goldsmith, J. Z. (2010). The alliance over time. In J. C. Muran & J. P. Barber (Eds.), The therapeutic alliance: An evidence based guide to practice (pp. 44–62). New York: Guilford Press.

Strauss, J. L., Hayes, A. M., Johnson, S. L., Newman, C. F., Brown, G. K., Barber, J. P., … Beck, A. T. (2006). Early alliance, alliance ruptures, and symptom change in a nonrandomized trial of cognitive therapy for avoidant and obsessive-compulsive personality disorders. Journal of Consulting and Clinical Psychology, 74(2), 337–345.

Tabachnick, B. G., & Fidell, L. S. (2007). Using Multivariate Statistics (5th Ed.). Boston, MA: Pearson.

Thormählen, B., Weinryb, R. M., Norén, K., Vinnars, B., & Bågedahl-Strindlund, M. (2003). Patient factors predicting dropout from supportive-expressive psychotherapy for patients with personality disorders. Psychotherapy Research, 13(4), 493–509.

Tufekcioglu, S., Muran, J. C., Safran, J. D., & Winston, A. (2013). Personality disorder and early therapeutic alliance in two time-limited therapies. Psychotherapy Research, 23(6), 646–657.

Vinson, T. (2007). Dropping off the edge: The distribution of disadvantage in Australia. Sydney, Australia: Jesuit Social Services.

Weinberg, I., Ronningstam, E., Goldblatt, M. J., Schechter, M., & Maltsberger, J. T. (2011). Common factors in empirically supported treatments of borderline personality disorder. Current Psychiatry Reports, 13(1), 60–68. doi:10.1007/s11920-010-0167-x

Weissman, M. M., & Bothwell, S. (1976). Assessment of social adjustment by patient self-report. Archives of General Psychiatry, 33(9), 1111–1115.

Weissman, M. M., Prusoff, B. A., Thompson, W. D., Harding, P. S., & Myers, J. K. (1978). Social adjustment by self-report in a community sample and in psychiatric outpatients. Journal of Nervous and Mental Disease, 166(5), 317–326.

Westra, H. A., Constantino, M. J., & Aviram, A. (2011). The impact of alliance ruptures on client outcome expectations in cognitive behavioral therapy. Psychotherapy Research, 21(4), 472–481.

Yeomans, F. E., Gutfreund, J., Selzer, M. A., Clarkin, J. F., Hull, J. W., & Smith, T. E. (1994). Factors related to drop-outs by borderline patients. Journal of Psychotherapy Practice and Research, 3(1), 16–24.

Zanarini, M. C., Frankenburg, F. R., Reich, D. B., & Fitzmaurice, G. (2010). Time to attainment of recovery from borderline personality disorder and stability of recovery: A 10-year prospective follow-up study. The American Journal of Psychiatry, 167(6), 663–667.

Table 1. Demographic characteristics of participants at baseline

Category	Classification	Frequency	Percentage
Birth country	Australia	38	86%
	United Kingdom	5	11%
	New Zealand	1	2%
Relationship	Single	22	50%
	In a relationship (not married)	21	48%
	Married	1	2%
Accommodation	With family of origin	30	68%
	Rental accommodation	9	21%

	Other accommodation	5	11%
Socioeconomic status (by suburb)	High	4	9%
	Medium	19	43%
	Low	21	48%
Employment	Full time employed	4	9%
	Part time employed (11-30hrs/week)	3	7%
	Part time employed (<10 hrs/week)	7	16%
	Unemployed	21	48%
	Student or homemaker	9	21%

Note: Socioeconomic classification based on Australia data from Vinson (2007)

Table 2. Comparison of alliance processes in early sessions between treatment groups

Measure	Treatment	Mean	Standard Deviation	Number of participants	t-test (df)	p-value
Number of ruptures	CAT	1.52	2.29	21	1.14 (42)	<.05
	Befriending	.83	1.67	23		
Significance of ruptures to alliance	CAT	1.86	1.20	21	1.92 (42)	.06
	Befriending	1.26	.45	23		
Overall resolution	CAT	2.67	1.00	9	.48 (15)	<.05
	Befriending	2.38	1.51	8		
Average resolution stages	CAT	1.81	1.28	9	2.70 (15)	.02
	Befriending	.50	.77	8		
Peak stage of resolution	CAT	3.78	2.91	9	2.61 (15)	.02
	Befriending	1.00	1.51	8		

Note: Means and standard deviations are presented based on the raw data whereas t-tests are calculated based on transformed data where the normality assumption was violated.

Table 3. Proportion of sessions with low, moderate or high number of ruptures across phases of therapy

Number of ruptures	Phase of treatment			
	Early	Mid	Late	Total
Low (0 ruptures)	27 (61%)	3 (19%)	5 (36%)	35
Moderate (1-2 ruptures)	10 (23%)	7 (44%)	3 (21%)	20
High (3 or more ruptures)	7 (16%)	6 (38%)	6 (43%)	19
Total participants	44	16	14	

Note: n=21 for CAT, n=23 for Befriending

Table 4. Correlations between key alliance rupture processes and change scores on outcome variables

	Number of Ruptures Early Session	Significance of Ruptures to Alliance Early Session	Number of Ruptures Mid Session	Significance of Ruptures to Alliance Mid Session	Number of Ruptures Late Session	Significance of Ruptures to Alliance Late Session	Overall resolution rating (early)	Average stages of resolution (early)	Peak stages of resolution (early)	Overall resolution rating (mid)	Average stages of resolution (mid)	Peak stages of resolution (mid)	Overall resolution rating (late)	Average stages of resolution (late)	Peak stages of resolution (late)
SAS-R	.32*	.25	.28	.16	-.30	-.24	.00	.26	.27	-.40	.14	.19	.19	-.11	-.05
BPDSI	.18	.17	.42	.36	.43	.40	-.07	.39	.27	-.42	.24	.17	-.42	-.67*	-.71*
N	44	44	16	16	14	14	17	17	17	14	14	14	9	9	9

Note: * = $p < .05$, two-tailed, SAS-SR = Social Adjustment Scale – Self Report (M=2.68, SD=.67), BPDSI = Borderline Personality Disorder Severity Index (M=28.72, SD=13.50)

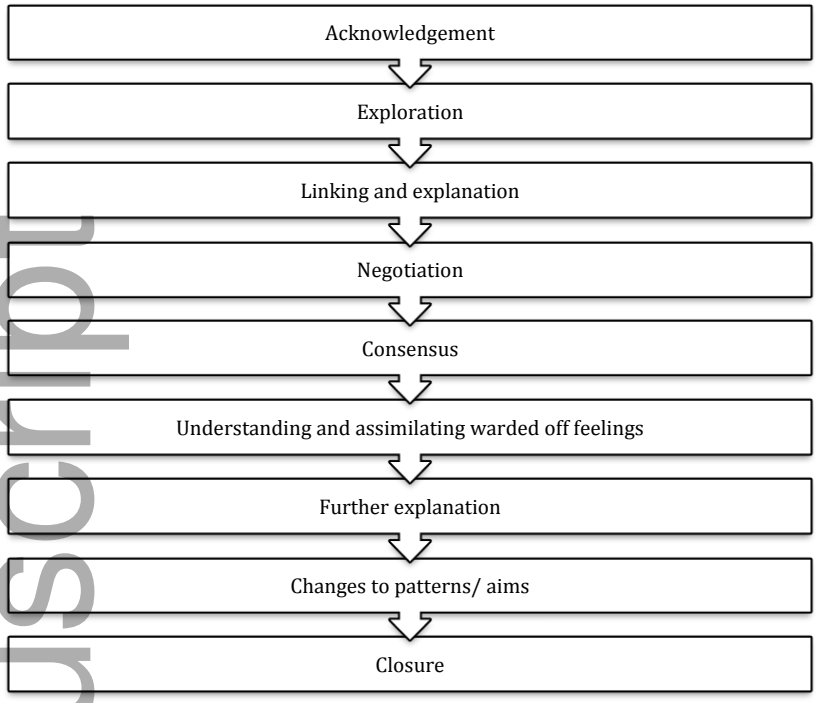

Figure 1. Refined performance model of rupture resolution from Bennett et al. (2006)

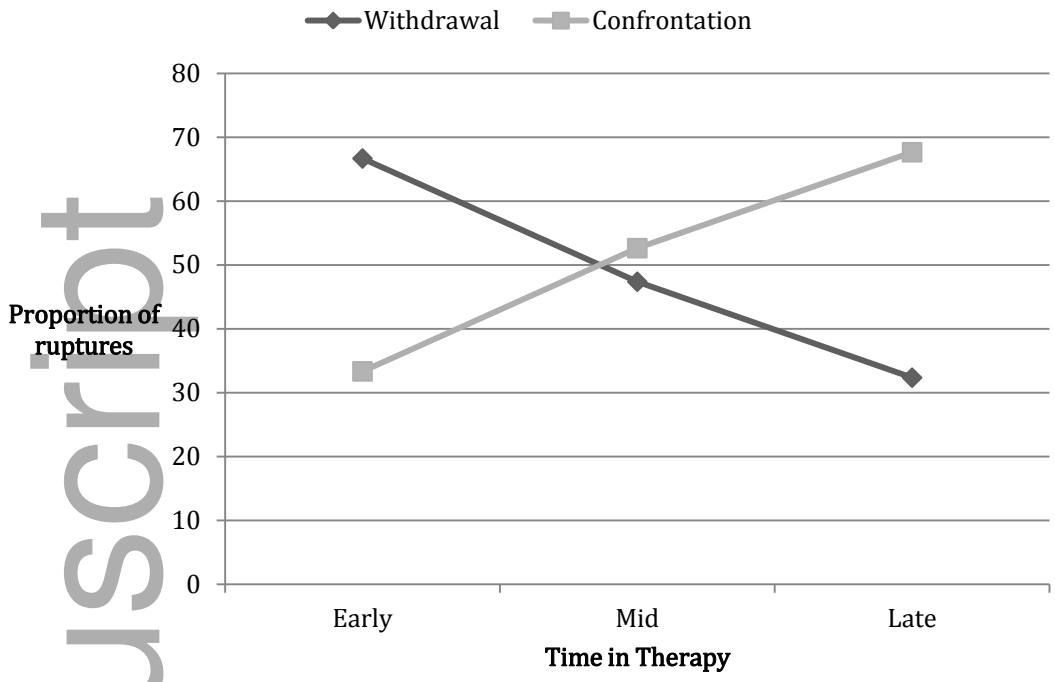

Figure 2. Type of rupture across time in therapy for CAT completers

Note: n(Early)=16, n(Mid)=16, n(Late)=14