



Rupture resolution in cognitive analytic therapy for adolescents with borderline personality disorder

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Background. Ruptures are potential change events in therapy that might result in positive or negative consequences for the therapeutic alliance and outcome. Alliance ruptures and premature drop-out are common with clients diagnosed with borderline personality disorder, limiting treatment effectiveness.

Objective. To test a nine stage model of rupture resolution in cognitive analytic therapy (CAT) with adolescents.

Method. The *validation phase* of task analysis was employed to test the rupture resolution model and to relate handling of ruptures to outcome using quantitative and qualitative analysis of transcripts. Eighteen ruptures and resolution attempts were intensively examined across three good and two poor outcome sessions, as rated by clients. The number of model stages employed by therapists was related to outcome.

Results. Sessions evaluated as poor or good by clients could be distinguished according to the extent to which therapists used model stages. Treatment outcome was significantly associated with number of model stages included by therapists.

Conclusion. Competent resolution of ruptures in CAT is dependent on therapists' inclusion of stages of the model, providing validation for the model, and demonstrating that effective rupture resolution might be related to treatment outcome. Ruptures and their resolution are likely to be key events in psychotherapy process.

Ruptures are defined as an emotional disconnection between client and therapist that creates a negative shift in the quality of the therapeutic alliance. Ruptures can be seen as

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potential change events in therapy (Rice & Greenberg, 1984) that might ultimately result in positive or negative consequences for the therapeutic alliance and treatment outcome, depending on how, or if, they are successfully resolved. Inadequate resolution of a rupture can cause difficulties in the working alliance, contributing to poor treatment outcome and premature termination of treatment (Eames & Roth, 2000; Rhodes, Hill, Thompson, & Elliott, 1994). Alliance ruptures and premature drop-out from psychotherapy are common with clients diagnosed with borderline personality disorder (BPD), limiting the clinical effectiveness of treatment (Bennett, Parry, & Ryle, 2006). Resolving ruptures can lead to a stronger therapeutic alliance and greater understanding of clients' presenting problems, and has potential to provide disconfirming evidence for clients' negative interpersonal beliefs (Binder & Strupp, 1997). Safran, Muran, Samstag, and Stevens (2002) suggest that resolution or repair of the relationship difficulty presents opportunities for therapeutic change and for deepening the alliance. The process of rupture resolution therefore represents an important clinical event, worthy of empirical study.

Several studies have examined rupture resolution in detail by using task analysis, a procedure whereby a successful performance (task) is described, modelled and then refined, using both theory and empirical evidence (Horowitz, 1987). For example, Safran and Muran (1996) proposed a stage process model of rupture resolution, testing it across a sample of clients receiving integrative psychotherapy (with interpersonal, experiential, and cognitive features).

Their model comprised four stages (including five client states and three therapist interventions): attending to the rupture marker, exploring the rupture experience, exploration of avoidance, and exploration of the interpersonal schema. Aspland, Llewelyn, Hardy, Barkham, and Stiles (2008) proposed a preliminary model of rupture resolution in cognitive behaviour therapy comprising seven stages: rupture recognition, addressing empathic failure, restoring the collaborative relationship, linking, revising the approach according to links made, negotiation, and pursuit of the collaboratively revised task. Finally, Bennett *et al.* (2003, 2006) used the discovery-oriented phase of a task analysis (Rice & Greenberg, 1984) to develop a model of how successful resolution of threats to the therapeutic alliance, involving enactment of problematic relationship patterns, is achieved in cognitive analytic therapy (CAT). Task analysis was carried out with 107 enactments from 66 sessions in four good outcome, compared with 35 enactments from 16 sessions in two poor outcome cases. The resulting model comprises nine stages: acknowledgement, exploration, linking and explanation, negotiation, consensus, understanding and assimilating warded off feelings, further explanation, change to patterns/aims, and closure (see Figure 1).

In Bennett *et al.*'s study, therapists in good outcome cases recognized and focused on the majority of these enactments, whereas in poor outcome cases, therapists usually failed to notice or draw attention to the alliance threat, and did not adhere to the model. The authors concluded that competent resolution of alliance-threatening events is primarily dependent on therapists' ability to recognize them, and secondarily on their adherence to the features of the model.

Q2 CAT and BPD: Current study

CAT is a time-limited, integrative treatment incorporating effective ingredients of both psychodynamic and cognitive therapy by applying a unique formulation for each client that relates reciprocal patterns of interaction and behaving to current difficulties.

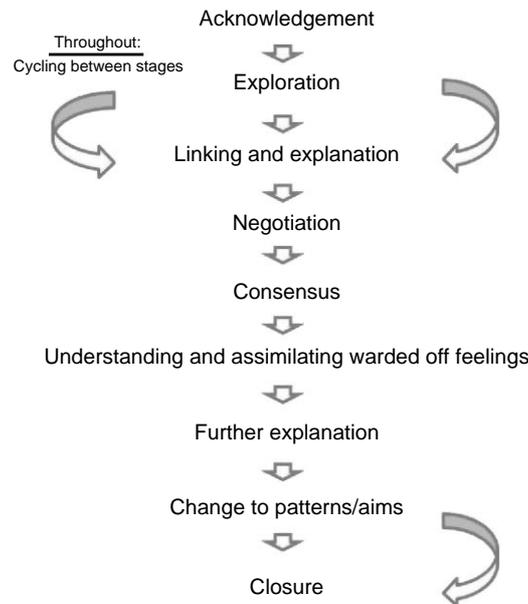


Figure 1. Refined performance model (adapted; Bennett *et al.*, 2006).

CAT has been used successfully with a range of disorders and client groups (Ryle & Kerr, 2002). Ryle (1997) has suggested that CAT is particularly appropriate for BPD, citing a number of cases demonstrating this (Ryle, 1995, 2004; Ryle & Golyunkina, 2000). Subsequently, Chanen *et al.* (2008) published the first randomized controlled trial (RCT) of CAT, demonstrating its effectiveness in a prevention and early intervention programme for adolescents with subsyndromal or full-syndrome BPD.

The current study used data drawn from the study by Chanen and colleagues to examine whether therapist adherence to stages of the Bennett *et al.* (2006) model of rupture resolution (developed within CAT for adults) was linked to rupture resolution success, clients' experience of sessions, and treatment outcome in adolescents with borderline pathology. Although designed as the validation stage of a task analysis of the rupture resolution model in CAT, the current study also provided an opportunity to examine the use of CAT in an adolescent client group, by linking effective practice of CAT (demonstrated by appropriate use of the model) to outcome.

Method

The validation-oriented phase of a task analysis was adopted here. This involves working with fresh observations to validate the components of a model that has already been developed, and thereafter relating the processes involved to outcome (see Greenberg, 2007).

The validation-oriented phase is itself twofold and involves procedures for testing in practice how adequately the model describes the nature of the resolution performance, and how well it predicts outcome. The process for validation of model components

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described by Greenberg (2007) is summarized in the following steps. Firstly, in order to test a newly constructed performance model derived from task analysis, the investigator advances hypotheses concerning new client performance in the task. Secondly, resolution and non-resolution performances on the task are then collected and compared to see if specified components of resolution performance discriminate between successful and unsuccessful performances. Thirdly, if predicted patterns and components are found to discriminate between resolution and non-resolution performances, credibility is added to the performance model. Next, hypothesized and observed resolution performances are compared, using appropriate statistical tests, to refute or add confidence to the hypothesized model. The final step, relating process to outcome, examines the relationship between the proposed successful client performances and outcome, thus testing the model's predictive validity (Greenberg, 2007).

Sample

Data were drawn from a RCT of CAT for early intervention for adolescents with subsyndromal or full-syndrome BPD (Chanen *et al.*, 2008) conducted at the HYPE Clinic, a specialized early intervention service for BPD in Melbourne, Australia (Chanen *et al.*, 2009). The main study sample comprised 86, 15- to 18-year-olds with subsyndromal or full-syndrome BPD and is described in detail elsewhere (Chanen *et al.*, 2008). The three therapists (two female, one male) were cognitive behaviour therapy trained with a 6-year degree in clinical psychology (standard for Australia) and each had at least 2 years post-training clinical experience. Senior CAT trainers conducted initial CAT training over 9 months, comprising 100 h of face-to-face, large and small-group seminars, and telephone-supervised practice. Study recruitment commenced when they judged that all three therapists were adherent to CAT. Each CAT therapy was supervised by a UK-based CAT expert, and a weekly telephone supervision group was provided for some cases. All other cases were individually supervised, using weekly e-mailed process notes and monthly telephone calls. At the end of each session, the therapist summarized the session with the client. The recording of this summary was converted to a secure mp3 file and e-mailed with the process notes.

Participants were randomized to up to 24 sessions of either CAT or manualized 'Good Clinical Care' (GCC). GCC comprised problem solving and basic cognitive behavioural concepts. The current study concerns the CAT arm of the trial only. Forty-four participants were allocated to CAT but three dropped out immediately after consenting to participate. Of the 41 CAT participants, 16 completed therapy to session 24. Sessions for the current analysis were selected according to post-session measures of alliance and process (see below), routinely obtained from clients after sessions 3, 12, and 20. The researchers chose to access those recordings to provide a consistent indication of rupture occurrence and resolution across treatment. Scores from these session ratings both identified potential ruptures, and indicated which sessions were evaluated as 'good' or 'poor'. The intention of this study was to relate process to overall treatment outcome (part two of the verification phase of the task analysis), rather than treatment drop-out. Therefore, it was pertinent to use data from clients who had completed therapy.

A final sample of five sessions was selected, taken from five participants (four female, one male) with a mean age of 15.8 years ($SD = 0.84$). Each participant was a student living at home with at least one biological parent. Four participants met criteria for subsyndromal BPD and one met criteria for full threshold BPD. In addition, four participants met diagnostic criteria for at least one Axis I disorder ($M = 2.2$, $SD = 1.9$). Specifically, two

met diagnostic criteria for a mood disorder, two for an anxiety disorder, two for a disruptive behaviour disorder, and one for a substance use disorder (excluding nicotine). Of the participants, 4 completed 24 sessions and 1 terminated therapy at session 21.

Measures

Sessions for analysis were selected using scores from two process measures, the Session Evaluation Questionnaire (SEQ; Stiles, 1980) and the Agnew Relationship Measure (ARM; Agnew-Davies, Stiles, Hardy, Barkham, & Shapiro, 1998) administered to clients at sessions 3, 12, and 20. The ARM provides a global assessment of the overall quality of the relationship and for this study, only the client version was used. The SEQ provides a qualitative assessment of session quality in terms of depth-value and smoothness-ease. First, these client-rated process scores were used to suggest sessions for analysis, reasoning that a session with a low ARM score, combined with a high SEQ roughness rating, might be one which indicated the presence of an unrepaired rupture, while one with a high ARM score combined with high roughness rating, might be one with a repaired rupture. Second, these scores were also used to identify sessions as 'good' (high ARM and high value on the SEQ), or as 'poor' (low ARM and low value on the SEQ) as rated by the client.

Next, two brief quantitative observer-rated process measures were developed to indicate how far a rupture had been repaired, and how well the stages of the model had been followed. These measures used Likert scales for independent judges to record their judgments. For use in Step 3 (see below), the five-point measure comprised a scale ranging from 'rupture not at all resolved' to 'rupture fully resolved', while for Step 5 (see below), the three-point measure comprised a scale from 'a poor instance' of the proposed model stage, to 'a good instance'. Finally, overall treatment outcome for this study was assessed using the Clinical Global Impression - Improvement Scale (CGI-I; Guy, 1976; Zaider, Heimberg, Fresco, & Schneier, 2003), assessed by their therapist, based on their opinion of the client's mental health at the time of termination. The CGI-I was chosen because it represents a global summary of outcome. The outcome measures from the RCT were domain specific (the domains being psychopathology, psychosocial functioning, parasuicide) and none of these on its own adequately summarizes global outcome. The therapists' ratings were chosen because they were rated temporally closest to the final session and were based upon ratings made by the person with the most complete knowledge of the client. For the purposes of this study, there was no requirement for these ratings to be made independently.

Analysis

Q5 The current study employed an *intensive quantitative design* (Greenberg, 2004) consisting of both quantitative and qualitative elements. Quantitative analyses (see procedure) were used to select the appropriate sessions to be included (i.e. scoring the post-session ARM and SEQ measures); to assess rupture resolution status and the presence of model stages followed; and when linking the model stages to outcome (Greenberg, 2007; Greenberg & Foerster, 1996). Differences between the identified resolution and non-resolution status of ruptures and session evaluation, the frequency of each model stage, and the link between model stages and outcome were assessed using non-parametric statistical analyses (Fisher's exact test, one-tailed). Qualitative analyses were used for rupture identification, resolution identification, selection of model stages, and evaluation.

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Procedure

The validation phase of the task analysis comprised seven steps, described by Greenberg (2007).

Step 1: Session identification

Sixteen participants completed therapy (i.e. to session 24), each of whom had 3 sessions recorded. All 48 available session ratings were inspected by the first two authors, and all sessions with ARM and SEQ ratings meeting *a priori* criteria for a possible rupture were identified. Eight of the forty-eight session recordings were identified as having ratings suggestive of a rupture, and as being adequately audible.

Step 2: Rupture identification

All eight recordings selected via ARM and SEQ measures were assessed to confirm that they did contain a rupture (whether repaired or not). The existence of a rupture in a session was determined clinically by the first author on the basis of having a *rupture marker* (i.e. client statement of a problem) or a client's within session performance (i.e. clear example of the problem state) and a *task* (i.e. series of therapist responses and ongoing client performance relevant to the session problem). These judgments were then confirmed by the second author. This resulted in a final selection of five sessions (from five different clients), of which three were subsequently classified as 'good' and two as 'poor' sessions. Within these sessions, 18 rupture-repair sequences were identified and transcribed.

Step 3: Resolution evaluation

Each rupture identified in Step 2 was assessed by two independent trained judges, using a Likert scale (described above) and the following criteria established by Bennett *et al.* (2006). Rupture resolution is understood to have occurred when there is evidence of (i) an explicit statement of understanding by the client; (ii) an affective shift, indicating emergence from the rupture. A rupture is considered resolved if both criteria are met, partially resolved if one or other but not both criteria are met, and unresolved if neither criteria are met.

Step 4: Selecting observed model stages

Q6 All ruptures identified by the investigators at Steps 1 and 2, and then rated as successfully resolved or not by independent judges in Step 3, were then assessed together by a further pair of independent judges (who were blind to classification of rupture resolution status and session evaluation measures). For each session, they selected those segments of the transcribed rupture repair sequence which in their view most closely represented the nine stages of Bennett *et al.*'s model (see Figure 1).

Step 5: Evaluating consistency of observed rupture repair sequences with model

These selected segments were then read again by the first two judges, at that point blind to the resolved or unresolved status of the rupture sequences and the session evaluation, but familiar with the model. Using a Likert scale, judges assessed each segment according to the extent to which it conformed to the components of the proposed model.

Step 6: Relating resolution status of ruptures to session evaluation

The resolution status of events and session evaluations were then disclosed to the first two authors, and the resolved and unresolved events were compared based on frequency of occurrence of each validated model component.

Step 7: Relating rupture resolution to outcome

Finally, rupture resolution status within good and poor evaluation sessions and the extent of rupture resolution according to the hypothesized model components, were related statistically to overall treatment outcome, measured by CGI-I scores. For this calculation, CGI-I ratings were collated into two groups, 'significantly improved' and 'minimally or unimproved'.

Results

Ruptures in 'good' and 'poor' sessions

Of the 18 rupture repair sequences, 11 ruptures occurred in session 3, 4 in session 12, and 3 in session 20. Eight of the ruptures occurred in the three 'good' sessions with positive SEQs and higher ARM ratings, while 10 ruptures occurred in the 2 'poor' sessions with negative SEQ and lower ARM ratings. Nine were judged to be resolved and one partially resolved; two-thirds of ruptures (6/9) were fully resolved in 'good' sessions and one-third of ruptures (3/9) were resolved in 'poor' sessions. Less than one quarter of ruptures (2/9) were left unresolved in 'good' sessions, while over three quarters of ruptures (7/9) were left unresolved in 'poor' sessions. More ruptures were fully resolved in sessions rated by clients as good using the SEQ, and with a higher ARM rating, than in sessions seen as poor using the SEQ and with a lower ARM rating, although small numbers meant that this difference did not reach statistical significance.

Rupture resolution and the model

Table 1 shows the number of stages from by Bennett *et al.*'s (2006) model that were observed in each of the 18 ruptures, according to whether or not ruptures were resolved.

There was a significant relationship ($p = .02$) between number of model stages observed and rupture resolution. Therapists included the early stages in almost all cases but there was a significant reduction in therapists' use of the subsequent six stages (i.e. negotiation through to closure) in unresolved ruptures, irrespective of session type.

Resolution of ruptures according to model and outcome

Of the five clients, three were rated on termination as having a good treatment outcome on the CGI-I, and two were rated as minimally improved or unimproved. When three or more model stages were observed in the sessions selected for this study (as seen in 10 of the 18 ruptures), this was associated with an overall improvement in participants' presenting problems on the CGI-I at termination. When fewer than three model stages were observed (as seen in 8 of the 18 ruptures), this was associated with a lack of improvement. Table 2 shows overall treatment outcome according to number of model stages observed in the sessions studied (i.e. whether three or more model stages were followed by therapists).

Table 1. Model stages followed in resolved and unresolved ruptures

	Model stage								
	Acknowledgement	Exploration	Linking and explanation	Negotiation	Consensus	Understanding and assimilating warded off feelings	Further explanation	Change to patterns/aims	Closure
<i>Resolution status*</i>									
Resolved	8	7	7	5	4	4	2	2	1
Unresolved or partially resolved	7	6	3	1	1	0	0	0	0

*Resolution status is across both good and poorly evaluated sessions.

Table 2. Number of model stages observed and treatment outcome

	Significant improvement	No significant improvement	Total ruptures
Three or more stages observed	7	3	10
Less than three stages observed	1	7	8

Note. Significant improvement, a therapist rating of 'much improved' to 'very much improved' on CGI-I; no significant improvement, a therapist rating of 'minimally improved' to 'minimally worse' on CGI-I.

There was a significant relationship ($p = .02$) between positive overall treatment outcome and number of model stages observed.

Table 3 shows that positive treatment outcome at termination was also significantly associated with having sessions where ruptures were resolved or partially resolved (7/10 ruptures, $p = .03$). Overall treatment outcome was not significantly improved when ruptures in these sessions were unresolved.

Table 3. Overall treatment outcome and rupture resolution

	Significant improvement	No significant improvement	Total ruptures
Resolved ($N = 9$) or partially resolved ($N = 1$)	7	3	10
Unresolved	1	7	8

Note. Significant improvement, a therapist rating of 'much improved' to 'very much improved' on CGI-I; no significant improvement, a therapist rating of 'minimally improved' to 'minimally worse' on CGI-I. (Note for this analysis only, the partially resolved rupture was included with the resolved rupture.)

Qualitative examples

The transcript excerpt in Figure 2 illustrates how ruptures were resolved by including all nine model stages. Stages identified by judges are included in italic font alongside the text. The client was a 17-year-old female with a diagnosis of BPD (5 DSM-IV BPD criteria) with a female therapist. The rupture sequence (218 s) occurred within the closing minutes of session 12. There is evidence of a rupture marker, i.e. client challenging and mildly criticizing therapist, and a task, i.e. series of therapist responses (including acknowledging, exploring, and negotiating) together with client responses including questioning, further challenging and eventual insight and awareness.

By contrast, the transcript excerpt in Figure 3 illustrates the way in which a rupture remained unresolved. The client was a 16-year-old male meeting 3 DSM-IV BPD criteria. This rupture sequence (177 s) also occurred towards the end of session 12. The therapist was male.

Discussion

The current study aimed to validate Bennett *et al.*'s (2006) model of rupture resolution, developed using adults receiving CAT, in a sample of adolescents diagnosed with borderline pathology who received CAT. Task analysis was used to examine CAT therapists' attempts to resolve ruptures, and the extent to which they included the nine stages of Bennett's model (acknowledgement through to closure).

T = therapist, C = Client, '....' denotes a pause in speech

T: So what's it been like, talking about that today?

C: Emm, good...I think I give you all my shit again. I come in here and talk my head off!

T: Do you think you shouldn't come in here and talk your head off?

C: No, but it wasn't originally like that. It was more structured to begin with and now it's different, I come in here.... *Rupture marker: client challenge/mild criticism of therapist* and I don't know, sometimes I feel like I've wasted it or something

T: So there's feeling bad about what you're doing *acknowledgement*
And I also got the impression that you were feeling a bit embarrassed about, 'oh, you know the whole of my life now', sort of thing *exploration*

C: *(laughs)* Yeah

T: Is that a bit more over here? *(therapist points to client's CAT reformulation diagram)*
To come in here to talk about that stuff? *linking and explanation*

C: I don't know... maybe...guilty? *negotiation*

T: Guilty?

C: Yeah

T: "Cos I should have it all together"?

C: Nah, I think I just feel like I've wasted your time, whether that's true or not, I don't know

T: Like you've wasted my time

C: Yeah *(laughs)*

T: I don't consider it a waste of time

C: Really, only 'cos I talk too much, I tend to do that....get on a roll

T: I think it's interesting that you think we shouldn't be talking. Do you think we shouldn't be talking, like this should be a lecture or something?
cycling through stages – back to exploration

C: Maybe, I don't know *(laughs)*. I just remember it being more structured, maybe you've changed that, I don't know? *Repeat of rupture*

T: I don't know either

T & C: *(both laugh)* *cycling between stages-acknowledgement*

T: I think sometimes things change that way because the work is changing, now were clearer about what some of these things are.
And we're in the middle kind of phase of you learning to recognise some of those things out in your real life *cycling between stages - exploration*

C: Yeah, rather than talking about them *negotiation (silence)*

T: Yeah, rather than me asking you questions about what happened when you were 3 or something

C: Yeah

T: So in some ways I did more talking earlier on and did more talking about the facts and the details, and also about how you felt because I needed to understand you to then work on the diagram, now we have the diagram it seems to me that the ball is handed to you now. And you can think about how you want your life to be? How do you want your interactions with people to be?

C: Em...*(therapist continues)*

T: Do you want to walk around feeling guilty all of the time *consensus*

C: Nah, it just happens anyway

T: Bit like one of those manholes? *(referring to the reformulation diagram)*

C: Guilty, oh Yeah! *understanding and assimilating warded off feelings*

T: And does it help for you to feel guilty or is that not very useful?

C: No! *(firmly)*...No!

T: So, I guess what I've done is to move it a little bit. A summary of this is when you feel humiliated or rejected by the people that are important to you, i.e. the group, then often what you do is feel guilty, it might not just be the group, it might be with me, you might feel rejected by me *further exploration*

C: Oh, Yeah...

T: And then you feel guilty and worry if you're saying the right things or if you're talking too much! Yeah.....?

C: Yeah!

T: And some of that seems to have to do with you sometimes feeling guilty for having any needs at all.....?

C: Yes, I know what you mean *rupture resolution – explicit statement of understanding*

T: So in some ways, what we can do over the next 12 weeks, like what we've got left, is an opportunity to think about how much you want your life to be about feeling guilty. And even think about alternatives to you feeling guilty all the time, like allowing others to take responsibility for their actions and you taking responsibility for how others make you feel, like when you feel rejected, you know? *Change to patterns/Aims (beginning of closure)*

C: Yeah, I see, OK ...Yeah! *(elevated tone of voice) (affective shift and closure)*

Figure 2. Model stage adherence and rupture resolution in a good evaluation session.

Three main findings emerge from this study. Firstly, there was a significant relationship between the number of model stages used by therapists and successful rupture resolution. Secondly, the quantitative and qualitative data demonstrate that it is possible to use Bennett's model of rupture resolution to distinguish between client-rated good and poor sessions. Thirdly, the number of model stages employed by the therapist was significantly associated with clinician-rated treatment outcome, assessed after termination of therapy.

There are several implications of these linked findings. First, although the initial stages of acknowledgement and exploration could be observed in almost all ruptures, many more stages could be observed in resolved ruptures where the therapeutic process was much more likely to include discussion, cycles of negotiation, and examination of difficult issues. This parallels the patterns reported by Bennett *et al.* (2006), and shows

*T = therapist C = Client '....' denotes a pause in speech ** = client/ therapist interrupt each other*

T: Maybe you could turn round your chair and draw at the same time
Have you thought.....

**

C: I've got ears you know *Rupture marker, challenge to therapist*

T:what you want to do with the rest of your time

C: I don't know
client drawing whilst talking

T: 'cos I think one of the things,
distracted by client, therapist interjects
what's up?

..... that we could work on or keep talking about is...ways to help you

C: Hmm...

T:make sure that you don't get into those habits again

C: Yeah....how are you going to do that!? *Rupture marker, challenge to therapist*

T: we'll work something out, it's not that hard!
Maybe something on the issues of trusting people and looking at different ways of
connecting so that you don't run away. What we'll be doing is for example, I bet you know
(therapist laughs at client's drawing)
maybe we can work on that a little bit!
.....is coming up with different exits, put an arrow up here *(points to diagram)*, to stop it,
to block it, so that you do something like have different ways of ending so that you don't run
away, so for example, talking to people or handle it in a different way that we kind of talk
about it, so that's the idea....

**

C: Let's see your glasses! *Repeat of rupture*

T: *(client takes therapist's spectacles)* Don't put them on!

C: Why not?

T: 'Cos you'll get an eye infection....

**

C: I've got glasses!..... they're dirty!

T: They're very dirty, so don't put them on!

C: Why?

T: 'Cos you're gonna get a headache

C: I've got glasses

T: For reading or for long-sighted?

C: For long-sighted

T: Oh

C: I just don't wear em.

T: Can you see Ok?
 **(*knock on door*)

T: Oh, this is X, she wanted to talk with you.
 **

C: She can talk to me in here.

T: I haven't finished my session with you yet (*jovial tone*)
 Hi X, I haven't finished my session yet, I'll probably be another 5 minutes
 **

C: Hiya X!

X: Hi, how are you?

C: *Client laughs a few times.*

T: Ok, I'm not going to touch anything here (*referring to drawing of diagram*), I mean other issues and themes
 **

C: Can my Mum come in here an look at that (*diagram*) maybe while I'm talking to X

T: (*hesitates initially*) She can, while you're talking to X. I'll get her and show it to her then, are you happy with that?

C: Yep

Therapist ends session and goes to call client's mother in to room

Figure 3. Model stages non-adherence and rupture non-resolution in a poor evaluation session.

similarities with the results of Aspland *et al.* (2008) in CBT. Although not all the subsequent model stages were observed, many components of the model were evident, as illustrated in the case example, where the therapist was able to link a challenge about therapy made by the client, to the client's formulation, and to her experience outside therapy. Unresolved ruptures were by contrast marked by a lack of negotiation and examination, where the rupture did not lead to examination of repeated patterns inside or external to therapy, and did not lead into further exploration or understanding.

Second, the proposed model, developed in CAT with adults, is also applicable to adolescents, confirming its validity. The model was able to discriminate between good and poor sessions in a different clinical context. Participant ratings of sessions where fewer than three model stages were observed when a rupture occurred were rated as poorer by clients than those where three or more stages were observed. This suggests that the model has clinical meaning, touches on significant experiences of participants, and is an indicator of effective therapeutic work. Of note, the model is now explicitly taught in CAT training programmes and unpublished training material suggests that therapists can acquire skills consistent with the model. The model could also have clinical use in supervision to suggest how session ruptures might be more effectively managed.

Thirdly, the resolution of or failure to resolve a rupture was linked to whether participants showed significant improvement at the end of therapy, as rated by their therapist. Where treatment outcome was better, more ruptures were resolved, according to the proposed model, while outcome was poorer in cases where later model stages were not observed, and ruptures were not resolved. Rupture resolution according to the Bennett *et al.* (2006) model is thus associated with better outcome,

suggesting that this model could also be helpful in promoting more effective therapy. For example, therapists could be trained to be particularly alert to any challenges to therapy and to attempt to resolve them using the processes outlined in the model. The emergence of the link between rupture resolution and outcome is striking, especially as the sessions chosen for analysis varied across therapy, and in some cases occurred very early on in the therapeutic relationship. The finding of a significant association between addressing within session events and outcome supports previous suggestions that rupture resolution might be an important ingredient of effective treatment, at least in this therapeutic approach, confirming suggestions by authors in other therapeutic modalities (for example, Castonguay *et al.*, 2004; Katzow & Safran, 2007; Leiper, 2000; Muran & Safran, 2002; Strauss *et al.*, 2006) that ruptures pose significant opportunities for therapeutic gain. For example, by consistently recognizing and resolving within session challenges, clients with personality disorders might be more effectively engaged. In turn, this might help to develop motivation and adherence and allowing dysfunctional relationship patterns to be recognized and modified. Although the underlying conceptualizations are different, there are many similarities between this model and that proposed by Aspland *et al.* (2008) in CBT, and it might be informative to see if either model could also be applied in other therapeutic modalities.

Limitations

The small number of therapists, clients, and sessions studied is a common but almost inevitable limitation to intensive process research studies. Also, using audiotapes of sessions meant that visual information about ruptures and resolution was excluded, potentially restricting the detection of ruptures. Additionally, the CGI-I is a single item, summary measure and it is not clear what information each therapist used to make this rating. It is possible that the CGI might not have measured aspects of client improvement relevant to the study. Alternatively, the rating might have been strongly influenced by the therapist's experience of successful resolution of ruptures in the therapeutic alliance. If this were true, independent ratings of outcome might have been appropriate. Selection of sessions for analysis largely relied on client judgments, and some sessions and events judged by therapists to be significant might not have been included. The design of this study meant that only clients who completed therapy were eligible. The majority of clients negotiated early termination of therapy or dropped out, potentially excluding other significant ruptures. A further study examining early termination and/or drop-out would be of value. Undoubtedly many other variables, including pre-existing pathology and extra-therapy events were associated with the outcome of therapy and this particular study did not attempt to control for these. Nonetheless, the finding of a significant relationship between within session events and outcome within this small sample, supports previous suggestions that rupture resolution might be key to effective treatment, at least in this therapeutic approach. Future studies should attempt to validate the model with other client groups or treatment approaches.

Conclusion

This study demonstrated that competent resolution of ruptures was linked with therapists' ability to include the series of steps described in Bennett *et al.*'s (2006) model. This provides validation for the model in a novel client group, namely

adolescents with borderline pathology. The study addressed the phenomena of ruptures in CAT and found that session evaluation and overall treatment outcome were associated with the resolution of ruptures. These findings contribute to a small but promising evidence base concerning the process of ruptures and how they are managed by therapists, identifying rupture resolution as a process measure that might predict outcome.

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