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When adolescents stop psychological therapy: rupture-repair in the therapeutic alliance and association with therapy ending

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Abstract

The therapeutic alliance consistently predicts dropout from psychological therapy, and ruptures in the therapeutic alliance may also predict dropout, yet there is a dearth of research with adolescents. This study investigated whether markers of rupture-repair in the therapeutic alliance were indicative of different types of treatment ending in adolescents who received psychological treatment for depression. Data were from the IMPACT study, a trial investigating the effectiveness of therapies for adolescent depression. Participants were randomly allocated to receive a psychological therapy: Brief Psychosocial Intervention, Cognitive-Behavioural Therapy or Short-Term Psychoanalytic Psychotherapy. The sample (N=35) comprised adolescents who had either completed their treatment (n=14) or dropped out (n=21) according to their therapist. Dropout cases were further classified as dissatisfied (n=14) or got-what-they-needed (n=7) based on post-therapy interviews with the adolescent and therapist. Selected audio-recordings of therapy sessions were rated using the Rupture Resolution Rating System and Working Alliance Inventory (observer-version). Therapeutic alliance and rupture-repair during therapy were similar for completers and got-what-they-needed dropouts, while dissatisfied dropouts had poorer therapeutic alliance, more ruptures, ruptures were frequently unresolved, and therapists contributed to ruptures to a greater extent. Qualitative analysis of the sessions led to the construction of three categories of therapist contribution to ruptures: therapist minimal response; persisting with a therapeutic activity; and focus on risk. Results suggest that ruptures, especially when unresolved, could be regarded as warning signs of disengagement and dropout from psychological treatment. Future research should investigate how ruptures may be effectively identified and resolved in treatment with adolescents.

Keywords: dropout; psychotherapy; adolescents; ruptures; therapeutic alliance

Introduction

Treatment dropout

Psychological therapy is a first line treatment for adolescent depression in the UK (NICE, 2015). However, it has been estimated that 45% of young people drop out of therapy, when dropout is defined as the young person ending therapy prematurely without the agreement of their therapist (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013). However, there has been substantial disagreement in the literature as to how dropout should be operationally defined, for instance, some authors have defined dropout based on the ending of treatment being prior to achieving clinically significant change (Hatchett & Park, 2003). This definition in itself is problematic, as completing treatment as planned does not necessarily mean that clinically significant improvement in symptoms will be made.

Regardless of how dropout is defined, there is consensus in the literature that dropout presents a major challenge for clinicians (Leichsenring, Sarrar, & Steinert, 2019). Treatment dropout has been linked with dissatisfaction with treatment (O’Keeffe, Martin, Target, & Midgley, 2019) and those who drop out may not access the full benefits of treatment (Cooper, Kline, Baier, & Feeny, 2018), making dropout a substantial concern. Some studies have found dropout to be linked with poorer clinical outcomes in adults receiving therapy for depression (Saatsi, Hardy, & Cahill, 2007; Saxon, Firth, & Barkham, 2017), although there is not strong evidence for an association between dropout and clinical outcomes in adolescents with depression (O’Keeffe, Martin, Goodyer, et al., 2019). Numerous studies have investigated risk factors for treatment dropout. For instance, researchers have tested symptom severity, socio-economic status, ethnicity and family constellation as predictors of dropout, but such studies have proved insufficient for understanding dropout (de Haan et al.,

2013), including in the context of treatment for adolescent depression (O’Keeffe et al., 2018). This suggests it may be important to focus on within-treatment factors as predictors of dropout. Previous studies have found poor therapeutic alliance, as reported by the young person, to be an important predictor of treatment dropout (de Haan et al., 2013), suggesting that this may be an important area for further investigation.

The therapeutic alliance and ruptures

The therapeutic alliance, the relationship between the therapist and client, is widely recognised as an important component of the therapeutic process in general, including for treatment with adolescents (Shirk, Gudmundsen, Kaplinski, & McMakin, 2008). However, building therapeutic alliance with adolescents brings additional challenges, as therapy can conflict with one of the central tasks of adolescent development, which is the shift towards autonomy, when adolescents are often reluctant to rely on adult figures for support and help (Shirk, Caporino, & Karver, 2010). Further, adolescent clients often do not make the decision to enter treatment for themselves, as this decision may come from a parent or caregiver (Kazdin, 1996), unlike with adult clients. This can bring challenges for the therapist in reaching agreement on the tasks and goals for treatment, regarded as key components of the therapeutic alliance (Bordin, 1979), when adolescents’ motivation for being in therapy may not be through their own volition. The relationship between therapeutic alliance and engagement in treatment has been established in empirical studies, with poorer therapeutic alliance being a significant predictor of treatment dropout (de Haan et al., 2013). Such studies tend to measure the therapeutic alliance at a single timepoint (Arnou et al., 2007; Shelef, Diamond, Diamond, & Liddle, 2005), thus failing to

account for fluctuation in the therapeutic alliance over the course of treatment. In response to this issue, some authors have measured the alliance in several sessions. For instance, Robbins and colleagues measured the therapeutic alliance in the first and second session and found that alliance declined between the sessions for those adolescents who went on to drop out of therapy, but not for those who went on to complete treatment (Robbins et al., 2006). However, global measures of alliance across entire sessions have still been criticised for providing too coarse a measure of the relationship, which doesn't account for alliance fluctuations that occur within sessions, on a minute-by-minute basis (Falkenström & Larsson, 2017). Thus, there has been a shift in the field towards the alliance being viewed in more dynamic terms, paying attention to patterns of alliance within sessions, including processes of alliance rupture and repair.

A rupture in the therapeutic alliance has been defined as deterioration in the alliance between the client and therapist (Safran & Muran, 1996) and can refer to anything from minor momentary tension to a major rift in the therapeutic alliance (Safran & Muran, 1996). Safran and Muran distinguish two types of rupture (Safran & Muran, 2000a, 2000b). In confrontation ruptures, clients express their anger or dissatisfaction with some aspect of the therapy in a direct and often hostile manner (Safran & Muran, 2000a, 2000b). The second type of rupture is withdrawal, where the client withdraws or disengages from the therapist, their own emotions or from some part of the therapeutic process (Safran & Muran, 2000a, 2000b). Markers of withdrawal ruptures may include verbal disengagement such as changing topic or long silences. Withdrawal markers may be subtle and can be difficult to detect; the therapist may not be aware of them, and neither may the client themselves (Boritz, Barnhart, Eubanks, & McMMain, 2018). Typically, withdrawal markers occur in most

or all therapy sessions, whereas confrontation markers occur less frequently (Lingiardi & Colli, 2015). When the client and therapist work collaboratively to repair a rupture in the alliance, the rupture may be resolved (Lingiardi & Colli, 2015). The successful resolution of an alliance rupture is defined as regaining the pre-rupture level of alliance (Safran & Muran, 2000b).

While the alliance and ruptures in the alliance are considered as being co-constructed between patient and therapist (Lingiardi & Colli, 2015), surprisingly little research has been carried out into the specific ways in which therapists contribute to ruptures in the therapeutic alliance. However, broadly the existing literature describes two broad ways in which therapists may contribute to ruptures in the alliance: relational and technical (Colli & Lingardi, 2017). Relational aspects of therapist contribution to ruptures include being critical, distant, defensive, and lacking in warmth or respect (Ackerman & Hilsenroth, 2001; Colli & Lingardi, 2017). The technical component of how therapists contribute to ruptures is described as misapplication of therapeutic techniques, such as inflexible adherence to their treatment model, use of inappropriate interventions, inappropriate use of silence or giving unwanted advice to the patient (Ackerman & Hilsenroth, 2001; Colli & Lingardi, 2017; Piper et al., 1999). These articles describe the range of ways in which therapists may negatively influence the alliance and cause ruptures. However, these studies have been with adult clients and as yet, it is unknown whether these findings generalize to adolescent populations.

The study of ruptures in relation to dropout is a relatively unexplored area, yet previous studies have found successful resolution of ruptures to be predictive of better retention in treatment for adult clients receiving time-limited psychotherapy (Eubanks, Muran, & Safran, 2018b; Muran et al., 2009). Markers of rupture and

resolution in the therapeutic alliance have not been tested in relation to dropout in the context of treatment for adolescent depression. But it might be expected that different markers of alliance rupture and resolution would be found in adolescents who drop out of therapy for different reasons, particularly given the broad range of ways in which dropout has been defined (Armbruster & Kazdin, 1994). In response to this issue, in our previous study, we presented evidence for a typology of adolescent dropouts from treatment (O’Keeffe, Martin, Target, et al., 2019), based on adolescents’ stated reasons for ending therapy, as well as therapists’ assessment of treatment process. Two types of dropout we proposed are relevant for the current study: “Dissatisfied dropouts” reported stopping therapy due to not finding it helpful; whereas “got-what-they-needed dropouts” reported stopping therapy because they did not feel a need to continue in therapy, even though the therapist did not agree to the ending (O’Keeffe, Martin, Target, et al., 2019). Importantly, dissatisfied dropouts typically had not expressed their dissatisfaction with therapy to their therapists. This meant that the therapists tended to be unaware of the areas of dissatisfaction experienced by the adolescents in treatment; potentially reflecting unrecognised withdrawal ruptures in the therapeutic alliance for dissatisfied dropouts. On the other hand, the got-what-they-needed dropouts did not express dissatisfaction with their therapies, and their therapists did not express great concern about the premature treatment ending, even if they had not agreed to it happening. Thus the views of got-what-they-needed dropouts and their therapists about the therapy process appeared to agree, which was not the case for dissatisfied dropouts (O’Keeffe, Martin, Target, et al., 2019).

Given the substantial debates in the literature around how dropout should be defined (Warnick, Gonzalez, Weersing, Scahill, & Woolston, 2012), we have

proposed that a more refined way of categorising dropout is needed (O’Keeffe, Martin, Target, et al., 2019), and that further analysis of the process of dropping out should be based on these more refined categories. Rather than treating dropouts as a homogenous group, it may be helpful to examine whether ruptures occur more frequently prior to a dissatisfied dropout compared to a got-what-they-needed type dropout, and compared to an adolescent who ended therapy with agreement of their therapist (a ‘completer’). Moreover, one might hypothesize that those ruptures which do occur are resolved more successfully among those who either completed therapy or dropped out having got what they needed, compared to the dissatisfied dropouts. This study will therefore examine alliance and rupture/resolution markers in adolescent therapy, comparing completers and dropouts, with the distinction between two dropout types: dissatisfied and got-what-they-needed.

Aim

The aim of this study was to investigate the therapeutic alliance and rupture-repair processes prior to three different types of treatment ending: dissatisfied dropout, got-what-they-needed dropout and treatment completion. It was expected that there would be poorer therapeutic alliance, greater frequency and significance of confrontation and withdrawal ruptures, poorer resolution of ruptures and greater therapist contribution to ruptures for dissatisfied dropouts compared with completers. The study also aimed to investigate whether therapists had contributed to ruptures, and if so, to explore the ways in which therapists were considered to have contributed to ruptures. It was expected that alliance and markers of rupture-repair for got-what-they-needed dropouts would resemble those of completers more than those of dissatisfied dropouts, given that got-what-they-needed dropouts were generally satisfied with the

treatment and thus were less likely to have had unresolved ruptures in the therapeutic alliance compared with dissatisfied dropouts. The study sought to explore whether dissatisfied dropouts had a unique pattern of alliance ruptures and (non) repair, which would distinguish them both from those who completed therapy, and those who ended therapy because they felt that they had got what they needed.

Method

Design

This study draws on data from the IMPACT randomized controlled trial comparing three interventions for adolescent depression (Goodyer et al., 2017, 2011). 465 adolescents, aged 11-17 years, with a diagnosis of moderate/severe unipolar depression were recruited and randomized to one of three manualized psychological interventions for depression:

- i. Brief Psychosocial Intervention (BPI): a psychosocial programme including psychoeducation about depression, including sleep hygiene and physical activity, of up to 12 sessions (Kelvin, Dubicka, Wilkinson, & Goodyer, 2010).
- ii. Cognitive-Behavioural Therapy (CBT): focuses on identifying and modifying information processing biases and behavioral activation, building on explicit, shared goals, delivered over up to 20 sessions (IMPACT Study CBT Sub-Group, 2010).
- iii. Short-Term Psychoanalytic Psychotherapy (STPP): focuses on giving meaning to the varieties of the young person's emotional experiences, and addressing difficulties in the context of the developmental tasks of the adolescent years, delivered over 28 sessions (Cregeen, Hughes, Midgley, Rhode, & Rustin, 2016).

The dropout rates were similar between the three treatment arms, and there was not a statistically significant difference in overall treatment length of levels of dropout between the three treatments (O’Keeffe et al., 2018).

Additional data for this study was drawn from IMPACT-ME, a qualitative, longitudinal study, in which the trial participants (including adolescents and therapists) from the North London region of IMPACT trial were invited to participate in in-depth interviews about their expectations and experiences of therapy (for full details, see Midgley, Ansaldo, & Target, 2014).

Participants

Figure 1 shows the sampling strategy for this study. Of the 465 participants in the IMPACT trial, this study draws on the North London region (n=127) where the IMPACT-ME study was carried out, as the IMPACT-ME interviews were used to classify cases into dropout types. Of the 127 cases in North London, 53 were classified as having dropped out of therapy. These dropout classifications were made retrospectively by the therapists, where they had not agreed to the ending of therapy. Of those 53 dropout cases, 32 had participated in the IMPACT-ME study and thus had been classified into dropout types in a previous study (O’Keeffe, Martin, Target, et al., 2019). Of these, a further four cases, classified as “troubled dropouts” in the previous study, were excluded as there was insufficient audio data of sessions to include them in the present study.

This study therefore draws on the dropout cases classified in a previous study as either dissatisfied or got-what-they-needed dropouts (O’Keeffe, Martin, Target, et al., 2019) where there was audio data of an early and late session therapy sessions available. Of the dissatisfied dropouts in a previous study (n=18), 14 had audio data,

while four were excluded as the therapy sessions had not been audio-recorded by the therapist. Of the got-what-they-needed dropouts in a previous study (n=10), 7 had audio data. Additionally, of the 67 completer cases, 14 were sampled for this study. Each dissatisfied dropout case was matched with a completer case seen by the same therapist, where the session recordings were available. This controlled for therapist effects, as each therapist essentially acted as their own control. Where more than one matched case was available, a case was randomly selected from the available cases. The sample thus comprised dissatisfied dropouts (n = 14), a matched group of completers (n = 14) and a smaller group of got-what-they-needed dropouts (n = 7).

[Figure 1 about here]

Data

Two audio-recordings of therapy sessions were selected for each case: an early and late session. Early sessions, where possible, were the second attended therapy session. For two cases, the second session was not recorded so the third session was used instead. These sessions were selected to provide an insight into what happened early in treatment. The late session for dissatisfied and got-what-they-needed dropout cases was the final recorded therapy session prior to them stopping therapy (ranging between the third and thirteenth attended session). For completer cases, the 'late' session was matched as closely as possible to the session number at which their therapist's other case dropped out (i.e. their matched dissatisfied dropout case). This sought to capture what happened in the sessions at the point at which dropout occurred, accounting for variation in the timing of dropout. Got-what-they-needed dropouts were not matched to completer cases.

Operationalizing dropout

As set out above, dropout classifications were initially made for the IMPACT study by therapists after treatment had ended, based on whether they had agreed to the ending of treatment. This was regardless of how many sessions the adolescent had attended, as recorded on a therapist-report ‘end of treatment’ form. In our earlier study (O’Keeffe, Martin, Target, et al., 2019), cases were then classified as dissatisfied or got-what-they-needed dropouts based on qualitative analysis of post-therapy interviews that took place separately with adolescents and their therapists, using the *Experience of Therapy Interview Schedule* (Midgley et al., 2011; see Appendix A and B). These interviews were carried out after the therapy had ended, by postgraduate researchers in the team. The interviews sought to explore the experience of therapy, including helpful and hindering aspects of therapy and how therapy ended. (For full details of dropout classifications, see O’Keeffe, Martin, Target, et al., 2019).

Measures

Working Alliance Inventory – Observer rated version (WAI-O)

The WAI-O is a 12-item observer-rated measure and includes items referring to the bond between the client and therapist and their agreement about the tasks and goals for treatment (Tracey & Kokotovic, 1989). Responses are on a seven-point scale from “very strong evidence against” to “very strong evidence for”, for items such as “There is a mutual liking between the client and therapist”. This was used to provide a global assessment of the therapeutic alliance in the sampled sessions. Higher scores reflect stronger therapeutic alliance. Internal reliability of the WAI-O was high ($\alpha = 0.95$). This measure was the observer version of the self-report version used in our previous

study (O’Keeffe et al., 2018), and was used instead of the self-report version in this study due to substantial missing data for the sample in the present study.

Rupture Resolution Rating System (3RS)

The 3RS is an observer-based system for detecting ruptures and rupture resolution (Eubanks et al., 2018b). While listening to a therapy session audio recording, raters watch for a lack of collaboration or presence of tension between the client and therapist. If either are present, the rater determines if a confrontation or withdrawal rupture occurred. The following scores were obtained:

- i. Number of confrontation and withdrawal rupture markers in the session. The occurrence of rupture markers is rated in each five-minute interval and is used to derive the frequency of each rupture marker during the session.
- ii. Significance of confrontation and withdrawal ruptures in the session. This captures the extent to which withdrawal ruptures appeared to impact on the alliance, on a 5-point scale, with higher scores reflecting greater impact on the alliance during the session (1 = no impact; 2 = minor impact; 3 = some impact; 4 = moderate impact; 5 = significant impact).
- iii. Rating of how much the therapist caused or exacerbated ruptures in the session. This is rated on a 5-point scale, with higher scores reflecting greater contribution by the therapist to ruptures (1 = no, 2 = maybe, 3 = yes, somewhat, 4 = yes, moderately, 5 = yes, mostly). The ‘maybe’ option was selected where there was an indication that the therapist may have contributed to ruptures, but it was not sufficiently clear to give a ‘yes’ rating. Scores were dichotomised as no (score = 1), maybe (score = 2) or yes (score ≥ 3).

- iv. Overall extent to which ruptures were resolved in the session. This is rated on a 5-point scale, with higher scores reflecting greater resolution of ruptures (1 = poor, 2 = below average, 3 = average, 4 = good, above average, 5 = very good). Scores were dichotomised as ruptures resolved (scores ≥ 3) or ruptures unresolved (scores ≤ 2). Sessions without any ruptures were rated as resolved.

A limitation of the 3RS is that it does not capture the ways in which therapists contribute to ruptures (Eubanks et al., 2018b). When sessions were rated as the therapist having contributed, or maybe having contributed to ruptures, notes were made about the way in which the therapist was perceived as having contributed to ruptures, to provide data on the way in which therapists had contributed to ruptures.

Inter-rater reliability

The first author listened to each session in its entirety, and rated it on the WAI-O and 3RS measures. The author was not blinded to therapy ending type, having conducted and analysed the interviews in the previous study. However, reliability and validity of ratings were checked through double rating 20% of sessions by an independent researcher, who was blind to therapy ending type. Acceptable reliability between the two raters was established on the WAI-O (Intra-Class Correlation (ICC) = 0.65), and on the 3RS for confrontation rupture frequency (ICC = 0.86), confrontation rupture significance (ICC = 0.81), withdrawal rupture frequency (ICC = 0.76), withdrawal rupture significance (ICC = 0.71), therapist contribution to ruptures (ICC = 0.64) and resolution of ruptures (ICC = 0.69).

Data analysis

Quantitative analysis

As this study was exploratory in nature, the WAI-O and 3RS were analysed descriptively to compare the therapeutic alliance and rupture-repair markers for the three groups. We considered that the assumptions underlying statistical inferential procedures may not be met, since neither group members nor sessions were strictly randomly sampled. We present measures of effect sizes (Hedges' g , odds ratios, and rate ratios as appropriate) and their confidence intervals, comparing each of the two dropout types to completers. Full results are presented but we advise the readers to interpret confidence intervals and p-values with caution.

Qualitative analysis of therapist's contribution to ruptures

In addition to the quantitative data derived from the 3RS described above to determine whether the therapists had contributed to ruptures, qualitative content analysis was conducted to explore how the therapist's contribution to ruptures. A formal rating scale of how therapists contribute to ruptures does not yet exist on the 3RS, so qualitative analysis of therapist's contributions to ruptures can help to inform the development of such a scale in future studies.

The first author listened to the audio-recording of each therapy session and wrote detailed descriptions of the ways in which therapists appeared to have contributed to ruptures in the sessions. The first author then categorised these descriptions to form an observational coding system of the different ways in which therapists appeared to have contributed to ruptures, and this system was then checked by the other authors. Each interaction where the therapist was viewed as having contributed to ruptures was only classified as one type of therapist contribution. The observational coding system was developed so that the different types of therapist contribution to ruptures could be identified, and so that their frequency across the

different therapies could be explored. Excerpts from the sessions are provided as examples of each of the ways therapists were viewed as contributing to ruptures.

Ethical considerations

The study protocol was approved by Cambridgeshire 2 Research Ethics Committee (REC Reference: 09/HO308/137). Informed written consent was obtained for all participants, including written parental consent for those under the age of 16 years. Therapists and participants consented to the sessions being audio recorded for the purpose of assessing treatment fidelity and studies of the psychotherapy process.

Results

Descriptive statistics for the sample are shown in Table 1.

[Table 1 about here]

Therapeutic alliance

The distributions of WAI-O scores by group and session timing are shown in Figure 2. In early sessions, dissatisfied dropouts had the poorest mean therapeutic alliance ($M = 49.57, SD = 11.39$) compared with completers ($M = 59.43, SD = 9.78$) and got-what-they-needed dropouts ($M = 59.14, SD = 6.49$). Comparisons between WAI-O scores in the present and previous studies are shown in Table 2, which show a similar average WAI-O score in the current sample compared with a previous sample of adults with depression receiving CBT. The mean alliance difference between dissatisfied dropouts and completers was estimated in early sessions as -9.86 (95 % C.I.: $-17.54, -2.18$). The mean alliance difference between got-what-they-needed dropouts and completers was estimated in early sessions as -0.29 (95 % C.I.: $-9.69,$

9.12). Likewise, in the late sessions mean therapeutic alliance scores were lowest for dissatisfied dropouts ($M = 46.14$, $SD = 11.38$) compared to both completers ($M = 60.29$, $SD = 6.97$) and got-what-they-needed dropouts ($M = 57.57$, $SD = 6.24$). The mean alliance difference between dissatisfied dropouts and completers in late sessions was estimated as -14.14 (95 % C.I.: -21.01 , -7.27). The mean alliance difference between got-what-they needed dropouts and completers in late sessions was estimated as -2.71 (95 % C.I.: -11.13 , 5.70) (see Table 3). Average therapeutic alliance scores were similar in early and late sessions for completers and got-what-they-needed dropouts. However, for dissatisfied dropouts, mean therapeutic alliance scores were three points lower in late sessions than early sessions, and the median was also considerably lower, indicating poorer therapeutic alliance for dissatisfied dropouts in late sessions compared with early sessions.

[Figure 2 about here]

[Table 2 and 3 about here]

Ruptures

The average frequency and significance ratings for confrontation and withdrawal ruptures are shown in Table 4, and comparisons with scores on the 3RS and previous research are shown in Table 2.

[Table 4 about here]

Confrontation ruptures

Figure 3 shows the distributions of the number of confrontation ruptures by group and session timing. The boxplots show that confrontation ruptures occurred rarely in all groups. Between early and late sessions, there was little change in the average number

of confrontation ruptures for completers and got-what-they-needed dropouts. A slight increase in the mean and median number of confrontation ruptures was seen for dissatisfied dropouts between early and late sessions. Dissatisfied dropouts were estimated as about the same number of confrontation ruptures in early sessions compared with completers (Risk Ratio(RR) = 0.90, 95 % C.I.: 0.24, 3.22), but more confrontation ruptures than completers in late sessions (RR = 2.53, 95% C.I.: 1.03, 7.10). Got-what-they-needed dropouts were estimated as having fewer confrontation ruptures compared with completers in early sessions (RR = 0.45, 95 % C.I.: 0.03, 2.56) and about the same number as completers in late sessions (RR = 0.94, 95 % C.I.: 0.19, 3.63) (see Table 5). While there were slightly greater frequency of confrontation ruptures for dissatisfied dropouts than completers, confrontation ruptures less common compared with the frequency reported in a previous study with adults who dropped out of therapy (Lorenzo-Luaces, DeRubeis, & Webb, 2014; Table 2).

[Figure 3 about here]

[Table 5 about here]

Figure 4 shows the significance ratings for confrontation ruptures by group and session timing. Significance ratings refer to the impact that ruptures were judged to have on the alliance, with higher ratings reflecting greater impact. For early sessions, the significance ratings of confrontation ruptures were similar across groups. All means were below 2, suggesting that on average, confrontation ruptures were rated as having no or low impact on the alliance in early sessions. In the late sessions, however, confrontation ruptures in the dissatisfied group were rated as greater in significance than for the other groups, on average. Whereas there was essentially no change in the average significance rating for completers and got-what-they-needed

dropouts, the average for the dissatisfied group rose to almost 3 in late sessions. It was estimated that dissatisfied dropouts had similar or slightly greater confrontation rupture significance compared with completers in early sessions (OR = 1.31, 95 % C.I.: 0.30, 5.72), but their confrontation rupture significance was rated more highly than the completers' in late sessions (OR = 6.44, 95 % C.I.: 1.42, 29.19). Got-what-they-needed dropouts were estimated to have similar confrontation ruptures significance compared with completers in early (OR = 1.13, 95 % C.I.: 0.19, 6.57) and late sessions (OR = 1.34, 95 % C.I.: 0.26, 6.87) (see Table 6).

[Figure 4 about here]

[Table 6 about here]

Withdrawal ruptures

Figure 3 shows the distributions of the number of withdrawal ruptures by group and session timing. The average number of withdrawal ruptures was highest for dissatisfied dropouts and lowest for the got-what-they-needed dropouts in both early and late sessions. Dissatisfied dropouts had higher mean and median numbers of withdrawal ruptures in the late sessions, compared to the early sessions. Dissatisfied dropouts were estimated as having similar or slightly more frequent withdrawal ruptures compared with completers in early (RR = 1.28, 95 % C.I.: 0.76, 2.18) and late sessions (RR = 1.46, 95% C.I.: 0.92, 2.34). Got-what-they-needed dropouts were estimated as having less frequent withdrawal ruptures compared with completers in early (RR = 0.51, 95% C.I.: 0.19, 1.16) and late sessions (RR = 0.78, 95% C.I.: 0.38, 1.49) (see Table 7). This contrasts with findings from previous studies where no significant difference was found in the frequency of withdrawal ruptures between completers and dropouts (Eubanks et al., 2018b; Table 2).

[Table 7 about here]

Figure 4 shows the average and distribution of significance ratings of withdrawal ruptures for each group, in early and late sessions. Significance ratings of withdrawal ruptures were similar for completers and got-what-they-needed dropouts, with average significance ratings being two or below, in both early and late sessions. This shows that on average, withdrawal ruptures were rated as having no or minor impact on the alliance, for completers and got-what-they-needed dropouts. Among the dissatisfied dropouts, significance ratings of withdrawal ruptures were slightly higher and above 3, suggesting that on average, withdrawal ruptures were rated as having some impact on the alliance for dissatisfied dropouts. It was estimated that dissatisfied dropouts had greater withdrawal rupture significance compared with completers in both early sessions (OR = 4.95, 95 % C.I.: 1.10, 22.32) and late sessions (OR = 6.85, 95 % C.I.: 1.49, 31.46). Got-what-they-needed dropouts were estimated to have similar or slightly lower withdrawal rupture significance compared with completers in both early sessions (OR = 0.75, 95 % C.I.: 0.16, 3.54) and late sessions (OR = 0.91, 95 % C.I.: 0.18, 4.68) (see Table 8). The average significance ratings of withdrawal ruptures were similar in early and late sessions within each group.

[Table 8 about here]

Resolution of ruptures

Ruptures were rated as resolved for the majority of sessions for completers (early = 79%, late = 93%) and got-what-they-needed dropouts (early = 86%, late = 86%), whereas the opposite was seen for the dissatisfied dropouts, with only 21% of ruptures being rated as resolved in both early and late sessions (see Figure 5 and Table 9). In early sessions, dissatisfied dropouts were estimated as having 93%

reduced odds of resolving ruptures in early sessions compared with completers (OR = 0.07, 95 % C.I.: 0.01, 0.40) and 98% reduced odds than completers in late sessions (OR = 0.02, 95 % C.I.: 0.0009, 0.17). Got-what-they-needed dropouts were estimated as 1.64 times more likely to resolve ruptures in early sessions compared with completers (OR = 1.64, 95 % C.I. 0.16, 37.22) while in late sessions it was estimated that got-what-they-needed dropouts had 54% reduced odds of ruptures being resolved than completers (OR = 0.46, 95 % C.I.: 0.02, 13.01) (see Table 9). The wide confidence intervals suggest that the differences between got-what-they-needed dropouts and completers may well not be statistically reliable. The differences in rupture resolution between dissatisfied dropouts and completers was the largest observed difference between the groups found in this study, and the confidence intervals suggest that this difference may well be statistically reliable. Dissatisfied dropouts frequently experienced unresolved ruptures from early in treatment, while ruptures were usually resolved in sessions with completers and got-what-they-needed dropouts. This is in line with what was found in a previous study, where greater resolution of ruptures was found for completer cases compared with dropout cases (Eubanks et al., 2018b; Table 2).

[Figure 5 about here]

[Table 9 about here]

Therapist contribution to ruptures

Table 10 shows the ratings of the extent to which the therapist caused or exacerbated ruptures in the sessions. This shows that a higher proportion of early sessions were rated as the therapist contributing to ruptures for dissatisfied dropouts (50%) compared with completers (14%) and got-what-they-needed dropouts (0%).

Dissatisfied dropouts had an estimated three-fold greater risk of therapists having contributed to ruptures compared with completers in early sessions (OR = 3.67, C.I.: 0.75, 21.88). The odds of therapists contributing to ruptures was estimated as 1.5 times greater for got-what-they-needed dropouts compared with completers in early sessions (OR = 1.47, C.I., 0.16, 11.92) (see Table 11).

In late sessions, little difference in the proportion of sessions rated as the therapist having caused or exacerbated ruptures between groups was observed (completers = 14%; dissatisfied dropouts = 29%; got-what-they-needed dropouts = 29%). However, an additional 29% of sessions of dissatisfied dropouts were rated as the therapist 'maybe' contributing to ruptures, potentially indicating therapists of dissatisfied dropouts having a larger than average role in initiating or exacerbating ruptures. In late sessions, dissatisfied dropouts had an estimated eight-fold greater of therapists having contributed to ruptures compared with completers (OR = 8.00, C.I.: 1.46, 65.42). The odds of therapists contributing to ruptures was estimated as 2.4 times greater for got-what-they-needed dropouts compared with completers in late sessions (OR = 2.40, C.I.: 0.23, 25.21) (see Table 11). These findings are comparable to what was found in a previous study which reported greater therapist contribution for dropout cases compared with completer cases (Eubanks et al., 2018b; Table 2).

[Table 10 and 11 about here]

There were 24 sessions rated as the therapist having contributed or maybe having contributed to ruptures in the session, of which 15 were sessions of dissatisfied dropouts. Qualitative analysis of how therapists had contributed to ruptures led to the development of an observational coding system of therapist's contributions to ruptures (see Figure 6). This consisted of three categories of therapist contribution to ruptures: therapist minimal response; persisting with a therapeutic activity; and focus

on risk. These three categories will be described in turn, including excerpts from the transcripts to illustrate the ways in which therapists appeared to contribute to ruptures. The cases presented have been assigned pseudonyms to maintain their anonymity, and any identifying information has been altered or removed.

[Figure 6 about here]

Therapist minimal response

Therapist minimal response was the most common way in which therapists were observed as contributing to ruptures. This was observed in 11 of the 24 sessions. In these sessions, the therapist was often passive, unresponsive or silent for long periods of time. Typically, the adolescent explicitly expressed concerns about feeling uncomfortable, awkward or not knowing what to say. An example comes from an adolescent, 'Riley', who in the second session of her STPP expressed from the start of the session: "I don't know what to say". The majority of the session was either silent, only broken with Riley expressing their difficulty with not knowing what to say. Fifteen minutes in to the session, the following interaction took place:

Riley: I'm just tired all the time, I don't know why. I'm always tired [one minute silence]. Was I meant to say something?

Therapist: What?

Riley: Was I meant to say something?

Therapist: What do you mean?

Riley: I don't, you weren't saying anything, so I thought I was meant to say something

Therapist: Mm [five second silence]. What would that be?

Riley: I don't know, I really don't know. I don't really know what to talk about.

Throughout the session, the therapist was non-directive in responding to Riley, who was openly expressing her difficulty with knowing what to talk about. Riley also said to the therapist: "it'll make it a lot easier if you just ask questions", demonstrating openness with what she wanted from the therapist. Throughout the session, the therapist's non-directive approach was met with minimal response rupture markers from Riley, who became increasingly withdrawn throughout the session.

In general, sessions in which therapist minimal response was observed, this appeared to cause or exacerbate ruptures, resulting in the adolescent becoming more withdrawn, or even confrontational towards the therapist.

Persisting with a therapeutic activity

In eight sessions, the therapist seemed to have contributed to ruptures by persisting with a therapeutic activity, which the adolescent had rejected, was not engaging in or seemed to have led them to withdraw. For example, in the final BPI session with 'Selena' prior to stopping therapy, she began the session talking very openly about her difficulties at home and at school. The therapist repeatedly intervened by trying to focus on goals:

Therapist: But wouldn't it be an overall goal to want to be able to go out?

Selena: Yeah but I know it's just not going to happen any time soon

Therapist: So you don't think that's achievable?

Selena: Well I do but its just at the moment like, at the moment I don't think a lot is achievable for me

Therapist: Well what would be the things that you would like to achieve?

Selena: I'm not even sure

Here, the therapist attempts to focus the session around setting goals for the session, which Selena seems to reject. This is observed consistently throughout the session, where the therapist attempts to suggest goals for the adolescent, and the adolescent rejects them. At these points, Selena shifted from talking openly about her difficulties to withdrawing from the therapist and/or the therapeutic task.

Other such therapeutic activities included making interpretations that the adolescent disagreed with, challenging the adolescent, and focusing on goals or practical issues. In these sessions, the adolescents talk very openly about their difficulties, including experiences of abuse, risk issues and financial concerns. Prior to the rupture, the adolescents were working collaboratively with the therapist. However, the therapist's intervention then seemed to shut down the adolescents' emotional experiences. In general, sessions in which therapists persisted with a particular therapeutic activity despite expressed resistance from the adolescent, it seemed that the therapist may not have focused on the issues most pertinent to the adolescent or on their emotional experience, which often appeared to lead to a withdrawal rupture.

Focus on risk

In three sessions, the therapist was seen to cause ruptures due to focusing on risk issues. This was due to a potential need to break confidentiality or to involve other agencies, conflicting with the wishes of the adolescent. An example of this occurred in the fifteenth session of STPP with 'Chantelle'. In this session, Chantelle disclosed a risk issue to her therapist, who raised the possibility of needing to involve external

agencies to ensure her safety. Chantelle became concerned about whether this would result in involvement from social services:

Chantelle: But are you going to get social services involved?

Therapist: I wouldn't do that before talking to you about it

Chantelle: I don't want them involved

Therapist: Ok. Well at the moment I'm not sure that we need to get them involved

Chantelle: No even if it gets worse I don't want them involved. I've got my family there. I don't want social serv - I don't, I don't really like strangers to be honest and that's when I get annoyed, when a stranger comes up to me

After this moment, Chantelle shifted between withdrawing from the therapist, to becoming confrontational by pressuring the therapist not to involve social services.

This encounter appeared to cause a notable rift. The therapist was focused on managing the risk situation and made attempts to reassure Chantelle. However, this significant rupture did not appear to get resolved, and there were tensions and continuous ruptures throughout the session after the first mention of social services.

This category demonstrates the therapist's focus on risk, which conflicted with the adolescent's overt wishes, seeming to put strain on the relationship.

Discussion

This study investigated the role of the therapeutic alliance and rupture-repair processes for adolescents who went on to complete psychological therapy compared with those who dropped out. For dropout cases, we made a distinction between dissatisfied and got-what-they-needed dropouts, based on the dropout typology constructed in a previous study (O'Keeffe, Martin, Target, et al., 2019). Dissatisfied

dropouts were adolescents who reported stopping treatment due to not finding it helpful. Got-what-they-needed dropouts were adolescents who reported having dropped out due not feeling in need of further treatment. Research has found poor therapeutic alliance to be a significant predictor of dropout (Cordaro, Tubman, Wagner, & Morris, 2012; de Haan et al., 2013; O’Keeffe et al., 2018; Robbins et al., 2006). The present study extends these findings, by demonstrating a difference in therapeutic alliance scores between types of dropout identified in a previous study (O’Keeffe et al., 2018).

We found that therapeutic alliance scores and rupture-repair markers were similar for got-what-they-needed dropouts compared with completers. In contrast, the dissatisfied dropouts tended to have poorer therapeutic alliance and a higher incidence of unresolved ruptures than both other groups. These differences between the groups were observed across all the measures of alliance and rupture employed in the small sample of adolescents included in this study.

This study suggests there are potentially quite different interactions prior to different types of treatment ending. Debates about how dropout should be operationally defined have spanned across several decades (Pekarik, 1985; Warnick et al., 2012), and these findings raise issues with the use of generic dropout definitions such as those based on when the ending of therapy was not agreed. We argue that the distinction made between dissatisfied and got-what-they-needed dropouts may be a more meaningful one, given the more difficult interactions in sessions for those who went on to be categorised as dissatisfied dropouts, compared to either treatment completers or those who dropped out having felt that they got what they needed. Future dropout research should seek to use more refined categories of dropout compared with generic definitions of dropout that have frequently been used in the

literature, as definitions based on whether the therapist has agreed to an ending (or attendance at a fixed number of sessions) fail to take into account the reasons as to why clients have stopped going to therapy.

We found that dissatisfied dropouts had poorer therapeutic alliance in early and late sessions compared with completers and got-what-they-needed dropouts. Although based on a small sample, this may indicate that poor therapeutic alliance very early in treatment is indicative of risk of dissatisfied dropout. It has been proposed that initial interactions between clients and therapists may be crucial to whether or not the treatment will be successful (Henriksen, 2017). Such a view is consistent with our findings. Moreover, the greatest number of confrontation and withdrawal ruptures were observed for the dissatisfied dropouts, compared with completers and got-what-they-needed dropouts, and ruptures were also rated as greater in significance for dissatisfied dropouts. Most strikingly, ruptures were frequently rated as unresolved for dissatisfied dropouts, in contrast to completers and got-what-they-needed dropouts, for whom ruptures were mostly resolved. These findings are in line with previous research findings linking unresolved ruptures with dropout (Muran et al., 2009), and suggest a more difficult interaction pattern between adolescents and their therapists prior to dissatisfied dropout.

While few confrontation rupture markers were observed in early sessions for any group, in the late sessions (which for those who dropped out, was the last session they attended) a higher incidence of confrontation rupture markers was observed among the dissatisfied dropouts. Research consistently suggests that clients will avoid expressing their dissatisfaction or negative experiences of therapy to their therapist (Farber, 2003; Gibson & Cartwright, 2013; Henkelman & Paulson, 2006; Paulson, Everall, & Stuart, 2001), yet an increase in confrontation rupture markers may be

indicative of dissatisfaction with treatment. This is an important finding as confrontation ruptures are easier to detect by therapists than withdrawal ruptures (Swank & Wittenborn, 2013), involving overt behaviours that therapists could pay attention to when working with adolescents, as these markers may provide warning signs of risk of disengagement due to dissatisfaction with treatment. It has been suggested that adolescents may often express their dissatisfaction with treatment indirectly (Gersh et al., 2017), and this view is supported by the higher frequency of withdrawal ruptures in this study for dissatisfied dropouts. Thus, withdrawal ruptures may indeed provide warning signs for dissatisfaction with treatment. This indicates an aspect of treatment that can be directly addressed and targeted in training and clinical practice to better equip therapists to deal with ruptures in the alliance.

Therapists were rated as having a greater contribution to ruptures for the sessions of dissatisfied dropouts than completers and got-what-they-needed dropouts. Three categories of therapist contribution to ruptures were constructed: therapist minimal response, persisting with a therapeutic activity and focus on risk. Previous research has found that therapists' rigid adherence to their treatment modality is often the cause of ruptures (Ackerman & Hilsenroth, 2001). This fits with what was observed in some of the ways in which therapists were viewed as contributing to ruptures. Therapists were sometimes using techniques that were consistent with their theoretical orientation, such as goal setting in BPI, or waiting for the young person to initiate the discussion in STPP. While these approaches might be viewed appropriate in the context of their modalities, persisting with them in the face of adolescent withdrawal or rejection may be problematic. Previous research on the process of resolving ruptures indicates that persisting with a specific intervention or technique can perpetuate ruptures, and therefore therapists should focus on being responsive to

the client, and should avoid rigidly adhering to any given approach or technique (Aspland, Llewelyn, Hardy, Barkham, & Stiles, 2008; Cash, Hardy, Kellett, & Parry, 2014; Newman, 1998; Rhodes, Hill, Thompson, & Elliott, 1994; Sarracino, Garavaglia, Gritti, Parolin, & Innamorati, 2013; Watson & Greenberg, 2000).

Focus on risk was also viewed as potentially contributing to ruptures. This fits with findings from studies in which adolescents have reported concerns about confidentiality when receiving mental health treatment (Gibson, Cartwright, Kerrisk, Campbell, & Seymour, 2016; Gulliver, Griffiths, & Christensen, 2010), and reflects some of the dilemmas recognised in the literature about balancing safeguarding issues with the maintenance of a therapeutic alliance (Jenkins, 2010). In some sessions, the possible breaking of confidentiality appeared to lead to ruptures. When managing risk issues with adolescents, therapists should carefully monitor whether this leads to ruptures in the alliance. Effective clinical strategies should be developed for balancing the ‘dual responsibility’ of managing risk and preserving the therapeutic relationship (BRIEF, 2019).

No known study has compared completers and dropouts using the WAI-O, so it is not possible to draw comparisons between alliance scores in the present study with previous research. This is the first known study to apply the 3RS measure to therapy sessions of adolescents with a diagnosis of depression. There were some similar findings in the present study compared with findings from a previous study with adults, with both finding that dropout cases had greater therapist contributions to ruptures than completers, while completers had greater resolution of ruptures compared with dropout cases (Eubanks et al., 2018). There were however some differences between the findings in the present study and the study by Eubanks et al. (2018) with respect to rupture markers. Confrontation ruptures were found to occur

less frequently in this sample of adolescents compared with a previous study with adults, including for dropout cases (Eubanks et al., 2018). In the study by Eubanks et al. (2018), there was not a significant difference in withdrawal ruptures between completers and dropouts, whereas withdrawal ruptures occurred more frequently in sessions with dissatisfied dropout cases compared with completers. These preliminary comparisons raise questions about how rupture markers may differ in adolescent clients compared with adults, where dissatisfaction leading to dropout may be more likely to be expressed in adolescents through withdrawal ruptures, while adults may be more likely to be confrontational. However, this is based on a small sample and the dropout classifications in the study by Eubanks et al. (2018) were not accounting for dissatisfaction, so these comparisons must be considered with caution. Nevertheless, this will be an interesting avenue for future research to explore differences in how indicators of disengagement or dissatisfaction may manifest different in adolescents and adults.

Strengths and limitations of this study

This is the first known study to investigate markers of rupture-resolution in the alliance in adolescents receiving therapy for depression, and to link rupture-resolution to dropout in this population. It was the first application of the typology of treatment endings developed by O’Keeffe, Martin, Target, et al. (2019) to questions of therapeutic alliance, rupture and their resolution. This study had several strengths. It used two data sources to understand therapy processes: interviews with young people and their therapists, and audio recordings of their therapy sessions. Rigorous rating systems were used to quantify the alliance, rupture and repair. This study lays the methodological groundwork for larger studies that could estimate the relationships

between rupture resolution and therapy ending in a more precise and statistically reliable way, both in adolescents with depression and other populations.

The small sample size meant it was not possible to conduct multivariate statistical analysis, so the unique contributions of alliance, rupture and resolution on treatment ending were not assessed. In addition, it was not possible to compare rupture-repair markers between treatment arms, or rule out some confounding between treatment arm and the associations described here. With these limitations in mind, it is important to consider the findings as exploratory. We encourage future studies to replicate this study in new datasets.

There are limitations with respect to the study design that must be acknowledged. Firstly, the three manualized treatments in this study each had different planned durations (ranging from 12 to 28 sessions). Therapists may have had different expectations for what constituted treatment dropout between treatment arms, which is a limitation given that dropout was classified based on therapist-report of how therapy ended. Existing dropout definitions have been criticised in the literature (Warnick et al., 2012), but we sought to go some way to improving on how dropouts were classified, by making an important distinction between dropout groups based on the reasons for dropout (dissatisfied vs. got-what-they-needed dropouts). However, a further limitation was with respect to how completers were classified. This was by their therapist's report that the therapy ended by mutual agreement, and the post-therapy interviews were not taken into account. Thus, for completers the way in which they experienced therapy was not taken into account and it is quite possible that there may be different types of completers. For instance, there may well be "got-what-they-needed" and "dissatisfied" completers.

Lack of blinding to the therapy ending type by the rater of the therapy sessions is a further limitation of this study. To overcome this, 20% of sessions were double-rated by an independent researcher who was blind to therapy ending and acceptable reliability was established. However, with this limitation in mind, the findings must be viewed as exploratory. It is important to acknowledge the limitations of the measure used in this study, the 3RS. The measure does not inform us about what may have contributed to the rupture and resolution process. Furthermore, although the rupture-alliance association persists even when accounting for different methods of rating ruptures (Eubanks, Muran, & Safran, 2018a), observer-based methods may not capture client's internal experiences of ruptures that may not be evident to therapists or observers. Finally, only audio recordings of sessions were used for this study, and as such nonverbal interactions that may have been indicative of a rupture may not have been detected.

Clinical Implications

This study suggests that adolescents who stop going to therapy without agreement of their therapist may not all do so for the same reason. At least two types of dropout should be considered, and thought about quite differently from a clinical perspective.

Got-what-they-needed dropouts may have similar levels of alliance and rupture-resolution markers as many of those who go on to complete therapy. Got-what-they-needed dropouts may not be easy to distinguish from completers with regard to the therapeutic alliance. Therapists should be aware that in the case of got-what-they-needed dropouts, ruptures in the alliance do not appear to be a specific precursor of them stopping therapy. This may suggest that got-what-they-needed dropout should not necessarily be regarded as a negative treatment outcome.

Dissatisfied dropouts had more ruptures that were frequently unresolved, compared with completers and got-what-they-needed dropouts, indicating a specific, targetable aspect of treatment that may help to improve adolescents' satisfaction with treatment. When working with adolescents, even minor ruptures should be recognised as a potential marker of their dissatisfaction that, if not addressed, may lead to disengagement. Poorer therapeutic alliance was observed in the second session for dissatisfied dropouts. The importance of establishing therapeutic alliance with clients is widely acknowledged (Swift & Greenberg, 2015). Although this is well-recognised in the clinical literature, and although most treatment manuals include accounts of how to help establish the therapeutic alliance, there are no widely-used guidelines about how a therapist should intervene in the event of ruptures in the therapeutic alliance. Our findings suggest that unresolved ruptures frequently precede a dissatisfied dropout. Therapists may be able to improve the chances of resolving ruptures by addressing the difficulties directly with the adolescent, or else changing the approach, treatment modality or therapist. In some cases, therapists may have to acknowledge that therapy is not working, in line with recent debates about the potential risks and harm that may result from continuing ineffective treatment (Dalzell, Garland, Bear, & Wolpert, 2018; Wolpert, 2016).

Conclusion

This study investigated the therapeutic alliance and rupture-repair processes in the lead up to different types of treatment ending. Findings indicated that the therapeutic alliance and rupture-resolution markers were broadly similar for adolescents that completed therapy and those who dropped out having got what they needed from it. This suggests that the got-what-they-needed dropout may not be caused by poor

therapeutic alliance. On the other hand, dissatisfied dropouts tended to have poorer therapeutic alliance, more ruptures, and ruptures were less frequently resolved. This provides further evidence that dropout due to dissatisfaction with the treatment, and dropout due to the patient's conviction that they got what they needed, ought to be regarded as distinct phenomena. This is the first known study to investigate rupture-resolution markers in the lead up to dropout from treatment for adolescent depression, and suggests that rupture-repair may be a productive line of enquiry for understanding the process of adolescent's disengagement from treatment for depression.

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Figure 1. Flowchart to show sampling strategy

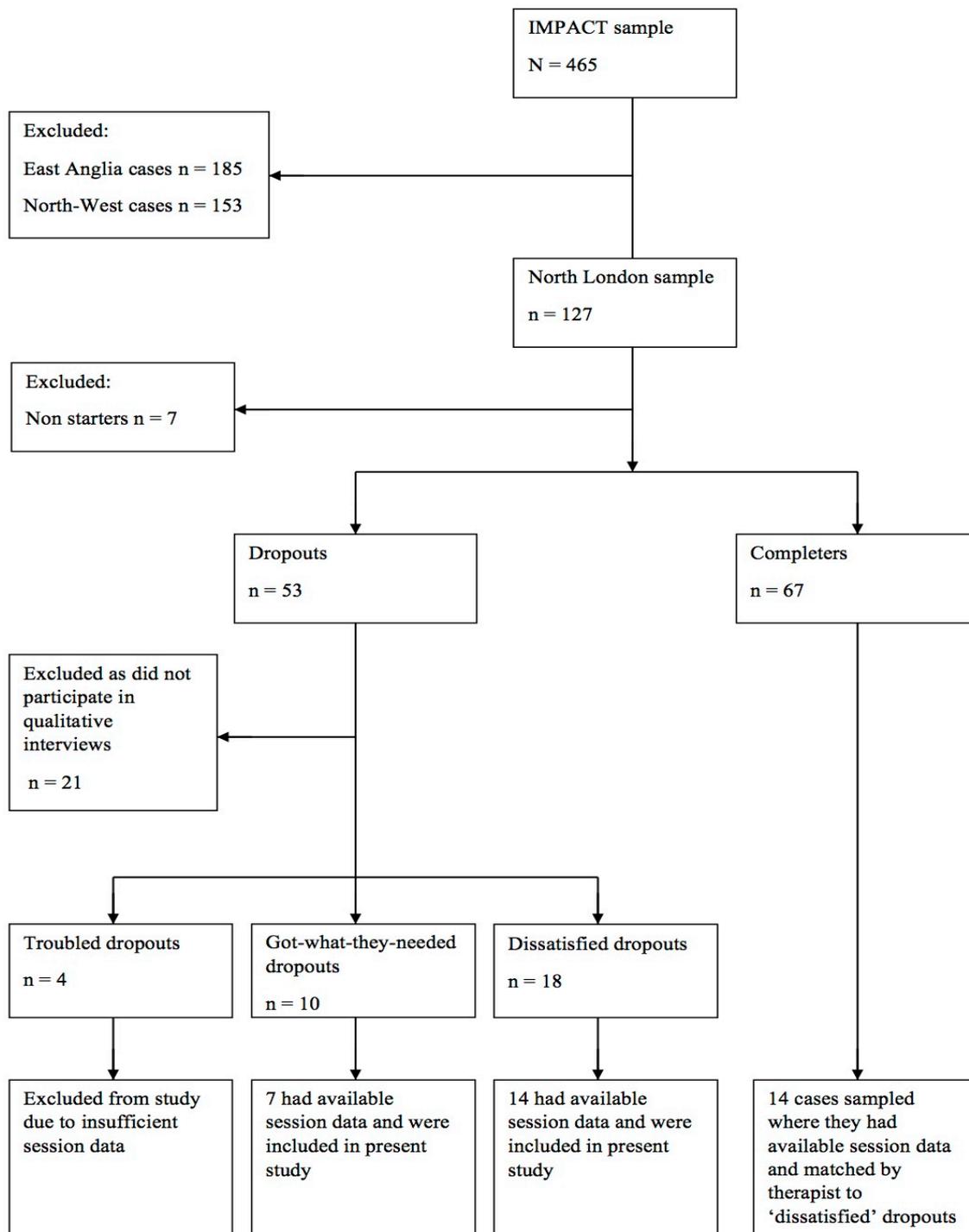
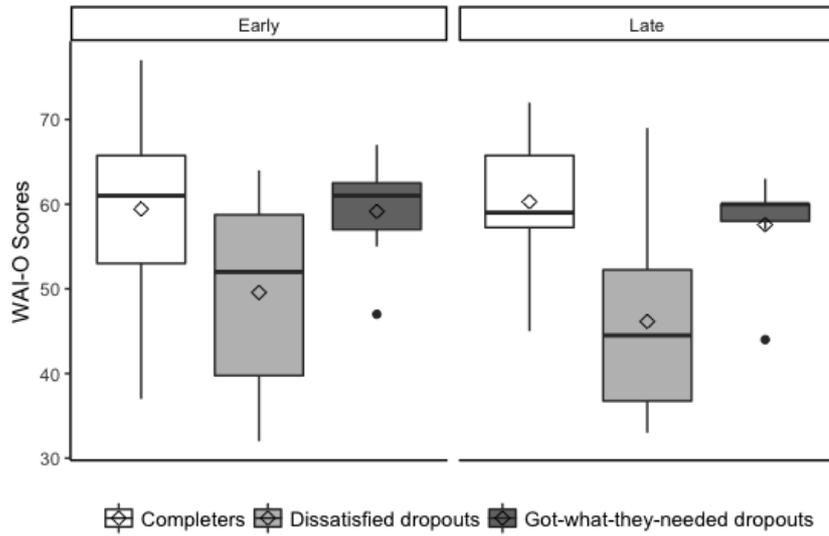
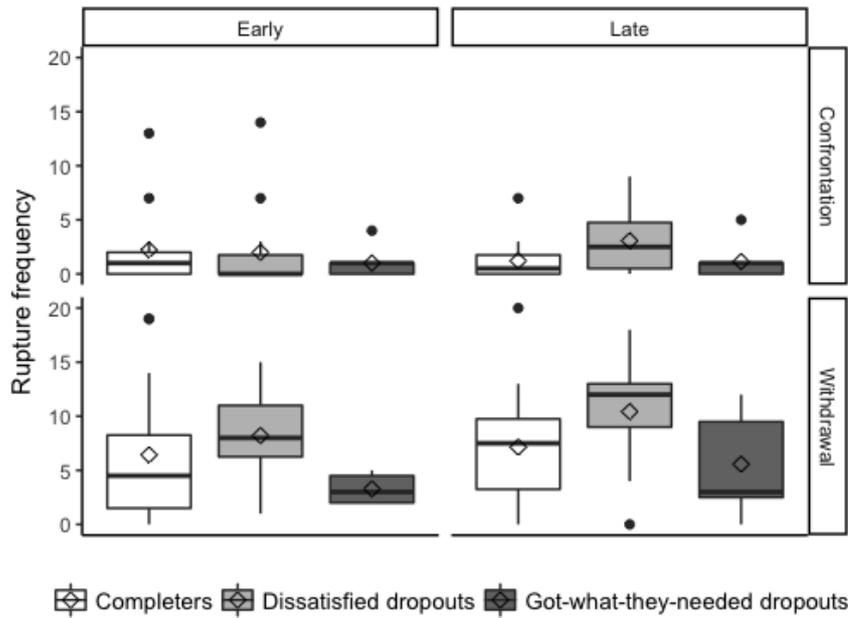


Figure 2. Boxplot to show the distribution of Working Alliance Inventory – Observer scores for completers, dissatisfied dropouts and got-what-they-needed dropouts, in early and late sessions



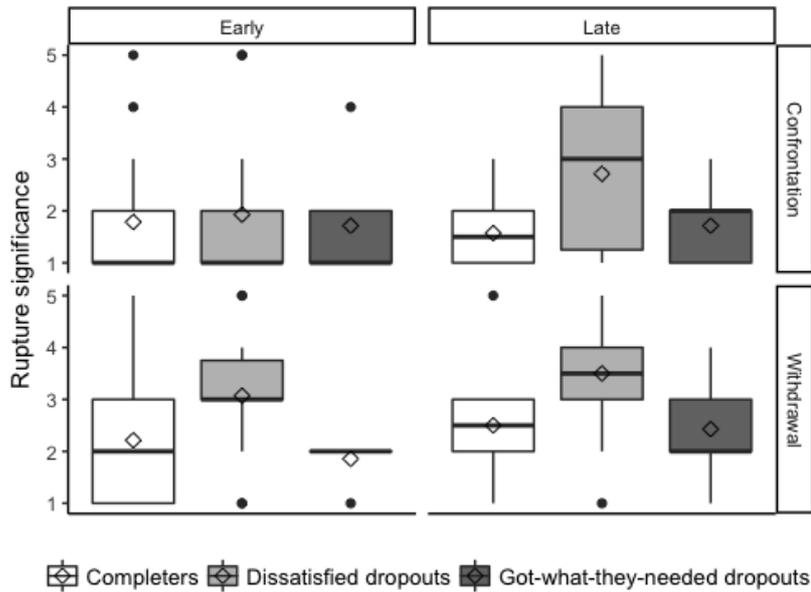
Notes: Diamonds identify the means. Whiskers show the range of the data, other than outliers. Outliers are identified by dots if they are further than 1.5 times the interquartile range away from the nearest quartile.

Figure 3. Boxplot to show the frequency of confrontation and withdrawal ruptures in early and late sessions, for completers, dissatisfied dropouts and got-what-they-needed dropouts



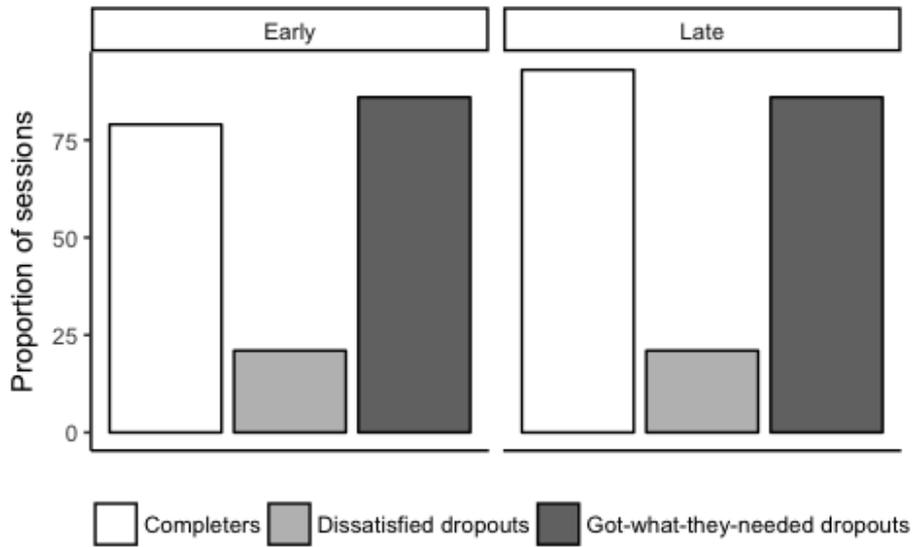
Notes: Diamonds identify the means. Whiskers show the range of the data, other than outliers. Outliers are identified by dots if they are further than 1.5 times the interquartile range away from the nearest quartile.

Figure 4. Boxplot to show the significance ratings of confrontation and withdrawal ruptures in early and late sessions, for completers, dissatisfied dropouts and got-what-they-needed dropouts



Significance ratings refer to impact of ruptures on alliance: 1 = no impact; 2 = minor impact; 3 = some impact; 4 = moderate impact; 5 = significance impact. Notes: Diamonds identify the means. Whiskers show the range of the data, other than outliers. Outliers are identified by dots if they are further than 1.5 times the interquartile range away from the nearest quartile.

Figure 5. Proportion of sessions where ruptures were rated as resolved in early and late sessions, for completers, dissatisfied dropouts and got-what-they-needed dropouts,



Scores derived from the Rupture Resolution Rating System (3RS). Scores with below average/poor resolution were considered unresolved; scores of average resolution or above considered resolved. If no rupture occurred, the session was rated as 'resolved'.

Figure 6. Therapist contributions to ruptures coding system

Therapists were observed as contributing to ruptures in the following three ways:

1. Therapist minimal response

The therapist was passive, unresponsive or silent for long periods of time, which appeared to cause or exacerbate ruptures.

2. Persisting with a therapeutic activity

The therapist persisted with a therapeutic activity, which the adolescent had rejected, was not engaging in or seemed to have led them to withdraw. The therapist did not appear to be focused on the issues most pertinent to the adolescent or on their emotional experience.

3. Focus on risk

The therapist focused on risk issues, which conflicted with the adolescent's overt wishes, which put strain on the therapeutic relationship.

Table 1. Sample: Number of cases in each treatment arm and group

	Dissatisfied dropouts n = 14	Matched completers* n = 14	Got-what-they-needed dropouts n = 7
Group			
BPI	3 (22%)	3 (22%)	3 (43%)
CBT	2 (14%)	2 (14%)	3 (43%)
STPP	9 (64%)	9 (64%)	1 (14%)
Age (M, SD)	16.68 (1.46)	15.43 (1.57)	15.30 (1.69)
Sex (% female)	79%	86%	86%
Ethnicity (% white British)	69%	69%	43%

*BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy). *Completers were matched to dissatisfied dropouts by therapist.*

Table 2. Scores on the Working Alliance Inventory – Observer (WAI-O) and the Rupture Resolution Rating System (3RS), comparing scores from the present study with those from previous studies with adult clinical populations

	Present study				Previous studies		
	Total M (SD)	Comp M (SD)	Diss Dropout M (SD)	GWTN Dropout M (SD)	Total M (SD)	Comp M (SD)	Dropout M (SD)
WAI-O	54.76 (10.82)	59.86 (8.34)	47.86 (11.31)	58.36 (6.17)	52.50	-	-
Confrontation ruptures	1.91 (2.94)	1.71 (2.89)	2.54 (3.43)	1.07 (1.54)	-	2.86 (2.47)	6.04 (4.97)
Withdrawal ruptures	7.33 (5.26)	6.79 (5.96)	9.32 (4.52)	4.43 (3.50)	-	8.24 (4.90)	8.58 (4.59)
Therapist contribution	1.67 (1.05)	1.36 (0.83)	2.11 (1.23)	1.43 (0.76)	-	1.87 (1.06)	2.61 (1.34)
Resolution	2.54 (0.77)	2.86 (0.53)	2.07 (0.90)	2.86 (0.36)	-	2.89 (0.90)	2.26 (0.99)

Note: WAI-O data reported from Lorenzo-Luaces, DeRubeis, & Webb (2014) and 3RS data reported from Eubanks et al. (2018). Data from the present study from early and late sessions are collated. Comp = completers; Diss dropout = dissatisfied dropouts; GWTN = got-what-they-needed dropouts.

Table 3. Linear regression models predicting Working Alliance Inventory – Observer (WAI-O) scores from dropout variables, with completers coded as the reference group

	Coefficient	SE	p	(95% CI for Coefficient)	ES
Model 1: WAI-O ratings from early sessions					
Constant	59.43	2.67			
Dissatisfied dropouts	-9.86	3.77	0.01	(-17.54, -2.18)	0.89
Got-what-they-needed dropouts	-0.29	4.62	0.95	(-9.69, 9.12)	0.03
Model 2: WAI-O ratings from late sessions					
Constant	60.29	2.39			
Dissatisfied dropouts	-14.14	3.37	<0.001	(-21.01, -7.27)	1.27
Got-what-they-needed dropouts	-2.71	4.13	0.52	(-11.13, 5.70)	0.24

CI = Confidence Interval; SE = Standard Error, ES = Effect size (Hedges' g)

Table 4. Average frequency and significance ratings for withdrawal and confrontation ruptures, in each treatment arm, for completers, dissatisfied dropouts and got-what-they-needed dropouts, in early and late sessions

Group	Completers (n = 14)		Dissatisfied dropouts (n = 14)		Got-what-they- needed dropouts (n = 7)		
	Early	Late	Early	Late	Early	Late	
Confrontation	Frequency	2.21 (3.62)	1.21 (1.93)	2.00 (3.96)	3.07 (2.84)	1.00 (1.41)	1.14 (1.77)
	Significance	1.79 (1.31)	1.57 (0.65)	1.93 (1.44)	2.71 (1.38)	1.71 (1.11)	1.71 (0.76)
	Frequency	6.43 (6.56)	7.14 (5.52)	8.21 (4.14)	10.43 (4.77)	3.29 (1.38)	5.57 (4.65)
	Significance	2.21 (1.31)	2.50 (1.02)	3.07 (1.21)	3.50 (1.16)	1.86 (0.38)	2.43 (0.98)

Table 5. Quasi-poisson regression model predicting the frequency of confrontation ruptures from dropout types, with completers coded as the reference group

	Estimate	SE	p	Rate Ratio	(95% CI for Rate Ratio)
Model 1: Early sessions					
Constant	0.80	0.44			
Dissatisfied dropouts	-0.10	0.64	0.87	0.90	(0.24, 3.22)
Got-what-they-needed dropouts	-0.80	1.02	0.44	0.45	(0.03, 2.56)
Model 2: Late sessions					
Constant	0.19	0.41			
Dissatisfied dropouts	0.93	0.48	0.06	2.53	(1.03, 7.10)
Got-what-they-needed dropouts	-0.06	0.72	0.93	0.94	(0.19, 3.63)

CI = Confidence Interval; SE = Standard Error

Table 6. Ordinal logistic regression models predicting confrontation rupture significance from dropout type, with completers coded as the reference group

	Odds Ratio	p	(95% CI for Odds Ratio)
Model 1: Early sessions			
Dissatisfied dropouts	1.31	0.72	(0.30, 5.72)
Got-what-they-needed dropouts	1.13	0.90	(0.19, 6.57)
Model 2: Late sessions			
Dissatisfied dropouts	6.44	0.02	(1.42, 29.19)
Got-what-they-needed dropouts	1.34	0.73	(0.26, 6.87)

CI = Confidence Interval

Table 7. Quasi-poisson regression model predicting the frequency of withdrawal ruptures from dropout types, with completers coded as the reference group

	Estimate	SE	p	Rate Ratio	(95% CI for Rate Ratio)
Model 1: Early sessions					
Constant	1.86	0.20			
Dissatisfied dropouts	0.25	0.27	0.37	1.28	(0.76, 2.18)
Got-what-they-needed dropouts	-0.67	0.45	0.14	0.51	(0.19, 1.16)
Model 2: Late sessions					
Constant	1.97	0.18			
Dissatisfied dropouts	0.38	0.24	0.12	1.46	(0.92, 2.34)
Got-what-they-needed dropouts	-0.25	0.35	0.48	0.78	(0.38, 1.49)

CI = Confidence Interval; SE = Standard Error

Table 8. Ordinal logistic regression models predicting withdrawal rupture significance from dropout type, with completers coded as the reference group

	Odds Ratio	p	(95% CI for Odds Ratio)
Model 1: Early sessions			
Dissatisfied dropouts	4.95	0.04	(1.10, 22.32)
Got-what-they-needed dropouts	0.75	0.72	(0.16, 3.54)
Model 2: Late sessions			
Dissatisfied dropouts	6.85	0.01	(1.49, 31.46)
Got-what-they-needed dropouts	0.91	0.91	(0.18, 4.68)

CI = Confidence Interval

Table 9. Binary logistic regression models predicting resolution of ruptures from dropout type, with completers as the reference group

	Coefficient	SE	p	Odds Ratio	(95% CI for Odds Ratio)
Model 1: Early sessions					
Constant	1.30	0.65			
Dissatisfied dropout	-2.60	0.92	0.01	0.07	(0.01, 0.40)
Got-what-they-needed dropout	0.49	1.26	0.70	1.64	(0.16, 37.22)
Model 2: Late sessions					
Constant	2.57	1.04			
Dissatisfied dropout	-3.86	1.23	<0.005	0.02	(0.0009, 0.17)
Got-what-they-needed dropout	-0.77	1.50	0.61	0.46	(0.02, 13.01)

Resolution of ruptures coded as 0 = ruptures not resolved in the session; 1 = ruptures resolved in the session. CI = Confidence Interval; SE = Standard Error.

Table 10. The extent to which the therapist was rated as having caused or exacerbated ruptures during the session

Therapist contribution to ruptures	Completers (n = 14)		Dissatisfied dropouts (n = 14)		Got-what-they-needed dropouts (n = 7)	
	Early n (%)	Late n (%)	Early n (%)	Late n (%)	Early n (%)	Late n (%)
Yes	2 (14%)	2 (14%)	7 (50%)	4 (29%)	0 (0%)	2 (29%)
Maybe	1 (7%)	0 (0%)	0 (0%)	4 (29%)	2 (29%)	0 (0%)
No	11 (79%)	12 (86%)	7 (50%)	6 (42%)	5 (71%)	5 (71%)

Scores derived from the Rupture Resolution Rating System (3RS).

Table 11. Binary logistic regression models predicting therapist contribution to ruptures from dropout types, with completers coded as the reference group

	Coefficient	SE	p	Odd Ratio	(95% CI for Odds Ratio)
Model 1: Early sessions					
Constant	-1.30	0.65			
Dissatisfied dropout	1.30	0.84	0.12	3.67	(0.75, 21.88)
Got-what-they-needed dropout	0.38	1.06	0.72	1.47	(0.16, 11.92)
Model 2: Late sessions					
Constant	-1.79	0.76			
Dissatisfied dropout	2.08	0.94	0.03	8.00	(1.46, 65.42)
Got-what-they-needed dropout	0.88	1.13	0.44	2.40	(0.23, 25.21)

Therapist contribution ratings coded as 0 = therapist rated as not contributing to ruptures; 1 = therapist rated as contributing or maybe contributing ruptures. CI = Confidence Interval; SE = Standard Error.

Appendix A. Post-therapy interview schedules used to classify dropout cases into dissatisfied / got-what-they-needed dropout types

Experience of Therapy Interview: Young Person

1. The difficulties that have brought the young person into contact with Child and Adolescent Mental Health Services (CAMHS)

- Can you tell me how you came to be referred to the CAMHS service? What was going on for you at the time?

(Try to unpack what is said, e.g. ‘When you say “depressed”, what do you mean by that?’).

- In what way did these things affect your life *at the time*?

(Concrete examples – daily life, relation to others, education, feelings)

2. The young person’s understanding of those difficulties

- How do you make sense of what was going on for you *at the time*? (Or ‘Can you tell me the story of how things came to be the way you described?’)

(Possible prompts: What do you think made things get like they were? How did the whole thing begin? What was going on at that time? How’s that connected to how things became?)

3. Change

- Compared to about a year ago, how have you been feeling/how have you been experiencing things?

(Prompt with referral to CAMHS if they don’t understand the timeframe)

[E.g. of prompts: What has improved? What has got worse? (Concrete examples)]

- In thinking about the changes you have mentioned, what are the things that contributed to those changes (concrete examples)? What has been helpful/unhelpful?

4. The Story of Therapy

- What ideas did you have about therapy before you first met your therapist?
- What were your first impressions of your therapist?

(How did you feel about starting therapy with them? How did you feel after that first meeting?)

Can you tell me the 'story' of your therapy as you see it?

(What happened next?)

Possible prompts:

- How would you describe your relationship with your therapist? How did it change during the therapy?
- Can you think of a word to describe your therapist? Can you think of a particular moment when your therapist was [word]?
- Are there any specific moments or events that you remember about the therapy?
- [E.g. of prompts: Things that happened that seemed important? Things that you or the therapist did or said that you particularly remember?]
- Were your parents/carers involved in the therapy? If so, how did this affect things?

- Can you tell me about the ending of the therapy?
- [Prompts: How did therapy end? How do you feel about the way therapy ended?]
- What was it like for you knowing that your therapy was a time-limited intervention?
- Looking back, how did it feel to be in therapy? What has it been like for you overall?

5. Evaluating therapy

- What were the most helpful things about the therapy? (Concrete examples)
- What kind of things about therapy were unhelpful, negative or disappointing? (Concrete examples)
- Was medication ever discussed with you?
- If you were starting therapy again, what would you like to be different?
- If a friend of yours was in difficulty or feeling depressed, do you think you would recommend that they went for therapy?
[Why / why not?]
- If you were describing therapy to a friend who had never been, how would you describe it?

6. Involvement in research

I'd like to ask you a few questions about what it has been like being involved in the research side of the IMPACT study.

- Can you tell me about your experience of being involved in the research side of things? How did you feel about your therapy sessions being recorded?
- When you initially joined the IMPACT study, you were allocated to one of three treatments on a random basis. Looking back, how do you feel about that process? Did you have a view on which of the three you hoped to get / not get?
- Can you tell me a bit about the regular meetings with the research assistants?
- [Prompts: What has it been like having those meetings? Have you met different research assistants? How did that feel? Did you ever talk about those meetings in your therapy? What was it like to attend research meetings at different points in time while you were still receiving therapy? And how do you feel now about attending research meetings after the therapy has ended?]
- Overall, what difference do you think it has made that your therapy has been part of a research study?
- Do you have any suggestions for us regarding the research side of the study?

Appendix B. Post-therapy interview schedules used to classify dropout cases into dissatisfied / got-what-they-needed dropout types

Experience of Therapy Interview: Therapist

1. The difficulties that brought the young person into contact with Child and Adolescent Mental Health Services

(this section will probably be quite brief)

- Thinking back to before you met with [client's name – YP], what was your understanding of the difficulties that led them to be referred to CAMHS?
- Do you remember any thoughts or feelings you had about [YP] before you even met them?

2. The 'story' of therapy

- Do you remember what your first impressions were of YP? [Did you think that YP was a suitable person for this type of therapy? Why/why not?]
- What were your thoughts about the YP starting this particular type of treatment?
- Can you tell me the 'story' of the therapy as you see it?

Possible prompts:

- How would you describe your relationship with YP? How do you think YP would describe his/her relationship with you?
- Are there any particular moments in the therapy that come to mind?

[Prompts: Things that happened that seemed important? Things that you or YP did or said that you particularly remember?]

- Were YP's parents/carers involved in the therapy? If so, what involvement did they have?

- Can you tell me about the ending of therapy?

[Prompts: How did therapy end? How do you feel about the way therapy ended? What questions linger in your mind regarding this case? Since the therapy ended, how have your thoughts about this young person/family changed?]

3. Change

- If you compare today with when YP began therapy, what do you think is different and what remains unchanged with regard to his/her problems and difficulties?

[What has improved? What has got worse? (Concrete examples)]

4. Evaluating the therapy

- What do you think were the most helpful things about the therapy? (General / specific?)
- What kinds of things about therapy do you think were unhelpful, negative or disappointing? [*If YP's treatment ended prematurely*: In what way might your actions have contributed to this YP's departure?
- Do you think YP would see it the same way? How would his/her view be similar or different?
- If you were starting therapy again with YP, would you want to do anything different? What/why?

- In hindsight, do you think that YP was a suitable person for this type of therapy? Why/why not?
- Was medication ever discussed?
- Are there other things *besides the therapy* that have been of help regarding YP's difficulties and problems? (Can you give concrete examples?) What do you think has been unhelpful regarding YP's difficulties and problems?

5. Involvement in research

I would like to ask you a few questions about what it has been like being involved in the research side of the IMPACT study so far...

First, ask a broad question to get a sense of what for the therapist has been the most significant element of the research context with the YP, e.g.

- What has the research side of IMPACT been like with this young person?
- Prompts of areas to explore (including what impact, if any, it had on treatment itself):
- The process of random allocation
 - Working to a manualised treatment
 - Audio-recording sessions
 - Delivering therapy in a fixed time frame
 - Filling in forms
 - The YP's regular meetings with a Research Assistant
 - Being part of a large, national study
 - Any other aspects of the study
- What do you think YP would say about how being part of a research study has affected his/her experience of therapy?

- For you, what has it been like overall to take part in the IMPACT study?
- Do you have any suggestions for us regarding the research?