'I just stopped going': A mixed methods investigation into dropout from psychological treatment in adolescents with depression

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Declaration

I, Sally O'Keeffe, confirm that the work presented in this thesis is my own.
Where information has been derived from other sources, I confirm that
this has been indicated in the thesis.

Signature:

Date:

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Abstract

While the effectiveness of psychological treatment for adolescent depression is well established, there is concern about high dropout rates. Using a mixed-methods design, this thesis sought to understand therapy dropout in the context of adolescent depression, drawing on data from a randomised controlled trial. Study 1 aimed to investigate whether dropout could be predicted from a range of child, family and treatment factors (N = 406). Increase in age and antisocial behaviour, and decrease in verbal intelligence, were found to be significant predictors of dropout. More missed sessions and poorer therapeutic alliance were also significant predictors of dropout. Study 2 aimed to investigate whether those who dropped out of therapy had poorer clinical outcomes compared with those who completed therapy. No strong evidence was found for dropouts having poorer outcomes than completers. Study 3 aimed to explore whether there was a more clinically meaningful way of classifying dropout. Interviews with adolescents (N = 32) and therapists for 'dropout' cases were analysed qualitatively using ideal type analysis. Three types of dropout were constructed. 'Dissatisfied' dropouts stopped therapy because they did not find therapy helpful; 'got-what-they-needed' dropouts stopped therapy because they did not feel a need to continue in therapy; and 'troubled' dropouts stopped therapy because they did not have the stability in their life to commit to the therapy. Study 4 aimed to investigate the role of the therapeutic alliance and rupture-repair processes in the lead up to a 'dissatisfied' dropout compared to other types of therapy ending. 'Dissatisfied' dropouts were found to have more ruptures in the therapeutic alliance, and ruptures were frequently unresolved, compared with completers and 'got-what-they-needed' dropouts, indicating a more difficult interaction pattern prior to 'dissatisfied' dropout. Together, these studies have implications for how different types of disengagement from treatment should be managed in clinical practice.

Impact statement

Depression is the leading cause of disability for adolescents worldwide (World Health Organization, 2014). The effectiveness of a range of psychological treatments for adolescent depression has been established (e.g. Goodyer et al., 2017), yet considerable concern remains about treatment dropout, with an estimated 45% of adolescents ending treatment without their therapists agreement (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013). Little is understood about the reasons behind adolescents' decisions for stopping treatment. This research sought to understand what it means when adolescents with depression discontinue treatment.

This research challenges how dropout has typically been conceived, usually considered a negative way for treatment to end. A refined categorisation of dropout was developed, comprising three distinct types of dropout: 'dissatisfied' dropout, 'got-what-they-needed' dropout and 'troubled' dropout. 'Dissatisfied' dropouts reported dissatisfaction with various aspects of treatment, and from early in treatment, there was a difficult pattern of interaction between these adolescents and their therapists. When treatment isn't working, it may be appropriate to consider changing approach, modality or therapist, due to potential risks and harm that may result from continuing ineffective treatment (Wolpert, 2016). Some adolescents may benefit from a brief engagement in treatment, as was seen for 'got-what-they-needed' dropouts, who did not perceive a need to continue with therapy. In such cases, it may be appropriate to negotiate an earlier treatment ending. This could ease pressure on waiting lists for treatment and improve their cost-effectiveness. 'Troubled' dropouts reported stopping therapy due to instability in their lives, indicating the need for an integrated care system. Adolescents who are unable to engage with the structure of traditional psychotherapies may need to be referred to other agencies better equipped to meet their needs. This is in line with UK policy that calls for mental health support for young people to be embedded within health, education and social care (Fonagy & Pugh, 2016). Enabling easier

movement between services can ensure that those adolescents most in need of support don't fall through the gaps between services.

The refined categorisation developed in this PhD can be used in future research and may prove more clinically meaningful than studying dropout as a unitary construct. Clinicians can use this categorisation of dropout to inform how they manage treatment endings in adolescents with depression. Therapists should be prepared to engage in shared decision making with adolescents about their preferences (Cheng et al., 2017). Management of disengagement from treatment should be tailored according to adolescents' reasons for disengaging. A more flexible and integrated care system, that includes the preferences of young people, can help ensure that adolescents receive the help that led them to seek help in the first place. Ending ineffective treatment or referring adolescents to alternative agencies when required may lead to better use of resources, thereby improving cost-effectiveness of mental health services.

There is growing emphasis on the inclusion of young people's voices in mental health research and practice. This research shows how the perspectives of young people can inform future research, clinical practice and service delivery.

Contribution

The data used in this thesis were from two existing studies: the IMPACT trial and the IMPACT-ME study (for details, see Goodyer et al., 2011; 2017; Midgley et al., 2013). My involvement in the studies commenced after the study protocols were established, ethical approval was in place and recruitment was underway. Prior to undertaking this PhD, I was employed as the Senior Research Assistant on the IMPACT-ME study (2012-2015) and as regional Trial Coordinator on the IMPACT trial (2013-2015). My contribution to these projects included the day-to-day project coordination, including recruitment and data collection. On the IMPACT-ME study, I contributed to designing the interview schedules, data analysis and dissemination of research findings.

Studies 1 and 2. All data for this study was collected as part of the trial, by the research team. I was in part responsible for coordinating data collection. I formulated the research aims and hypotheses, scored the data, conducted data analyses and wrote up the studies.

Study 3. I conducted half of the interviews with young people and therapists used in this study, alongside other members of the IMPACT-ME research team. I transcribed a third of the interviews used in this study, with the rest being transcribed by interns and Research Assistants on the study. I formulated the research question, analysed the data and wrote up the study.

Study 4. This study drew on therapy session recordings collected as part of the trial. I coded all therapy sessions used for this study. I formulated the research question, conducted the data analysis and wrote up the study.

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1 Psychological treatment for adolescent depression and the problem of dropout

1.1 Introduction

Depression is a common occurrence in adolescence, with an estimated 12-month prevalence rate of 7.5% in 13 to 18 year olds (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015). Guidelines recommend psychological therapies as the first line of treatment for moderate to severe depression in adolescence (NICE, 2005), which have been demonstrated to be effective (Goodyer et al., 2017a). Given the proven efficacy of psychological therapies, it may be presumed that to benefit from a treatment, a client must attend their sessions. However, it is estimated that approximately half of children and adolescents receiving outpatient mental health care drop out of treatment (de Haan et al., 2013). Young people who drop out of treatment may not be getting the help that led them to seek treatment, which makes it concerning that dropout occurs so frequently across mental health services for children and adolescents.

In addition to dropout potentially leaving difficulties untreated, dropout is a concern for clinical services more generally. Dropout may indicate lack of engagement in treatment, which may reflect lack of acceptability of the treatment on offer, as well as having cost implications. Cancelled and missed sessions frequently precede dropout (Kazdin & Wassell, 1998; Prinz & Miller, 1994) and result in services being underutilised and reduces their cost-effectiveness (Barrett, Chua, Crits-Christoph, Gibbons, & Thompson, 2008; Cooper, Kline, Baier, & Feeny, 2018; Wierzbicki & Pekarik, 1993). For every appointment that is not attended, valuable resources go to waste, contributing to lengthy waiting lists for treatment in public services such as the National Health Service (NHS), impacting on the many others in need of help (Swift & Greenberg, 2015).

The majority of the dropout literature has focused on adult clients. However, dropout research focusing on adolescent samples is needed,

as adolescents have been found to be at greater risk of dropping out compared with adults (Roseborough, McLeod, & Wright, 2016). Moreover, adolescents face unique developmental challenges making them different from children as well as from adults, and therefore studies from adult and child samples cannot be assumed to be generalisable to adolescents. A further rationale for studying dropout specifically in relation to adolescents is that mental health problems often first present during adolescence (Kessler et al., 2007). Improving treatment for those at the age when mental health difficulties often present may help to prevent the long-term consequences of untreated difficulties. Any treatment will have limited clinical value if those it seeks to help will not engage in it or disengage from it (Fonagy et al., 2015). Treatment dropout in adolescents is therefore a crucial area for research.

This thesis will focus on treatment dropout specifically in the context of adolescent depression, as this is one of the most common presentations for which this age group seek mental health treatment. This will involve an in-depth exploration of the phenomenon of dropout in a sample of adolescents who received therapy for depression. The study of dropout has been hampered by lack of consensus regarding how dropout should be operationalised, as well as a lack of theorisation of the concept of dropout in the existing literature. This chapter will therefore provide an overview of adolescence, adolescent depression and its treatment and dropout. This literature review takes the form of a narrative review. This was chosen over a systematic review, to allow the flexibility to draw on the literature relevant to the study of dropout, including studies from psychotherapy with adult clients. This was decided on the basis that a meta-analysis had been published relatively recently on dropout from child and adolescent mental health treatment (de Haan et al., 2013), and so this literature review draws more broadly on the theoretical, conceptual and empirical studies relevant to treatment dropout, without imposing the strict inclusion criteria that would have been necessary for a systematic review. This chapter will provide the context for the research in this thesis, which comprises four interlinked, empirical studies, towards the

overall aim of carrying out an in-depth investigation of therapy dropout in the context of adolescent depression.

1.2   Adolescence

A brief overview of the adolescent period of development will be given, to provide context for some of the unique challenges of working with and engaging adolescents in treatment, discussed later in this chapter. Adolescence is the period between childhood and adulthood, during which biological, psychological and social transitions take place. This is considered as a period where adolescents move towards a more 'adult' identity by becoming independent from their parents (Erikson, 1968; Winnicott, 1965) and developing uncertainty about figures of authority (Block & Greeno, 2011). This developmental period involves numerous transitions including identity development, forming friendships and romantic relationships, puberty and managing academic demands (Spear, 2000).

Adolescence is often regarded as one of the most stressful periods of life, as this stage of development involves many challenges that are important for successful development and maturation (Susman & Dorn, 2009). Stressors have been shown to increase from pre-adolescence to adolescence (Rudolph, 2002), and this rise in stressors may explain the increase in the prevalence of mental health problems from childhood to adolescence. For instance, while the prevalence of depression in children under the age of 11 is relatively low, with estimates between 0.5-3%, this increases dramatically in adolescence, with an estimated 12-month prevalence rate of 7.5% in 13 to 18 year olds (Avenevoli et al., 2015). Adolescence is therefore a significant period for the onset of mental health problems across westernised cultures (Vyas, Birchwood, & Singh, 2015), making it important to establish effective treatments in this age group, so that early intervention can be provided for disorders when they first present.

1.3   Adolescent Depression

Depression is the leading cause of disability worldwide (World Health Organization, 2012), including for adolescents (World Health Organization, 2014). According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), to meet diagnostic criteria for depression, five or more symptoms must have been present within a two-week period (American Psychiatric Association, 2013). Symptoms include depressed mood, loss of interest or pleasure in activities, significant weight or appetite changes, insomnia or hypersomnia, psychomotor retardation or agitation, loss of energy or fatigue, feelings of worthlessness, excessive or inappropriate guilt, indecisiveness, diminished ability to think or concentrate, recurrent thoughts of death, suicidal ideation, or a suicide plan or attempt. In addition, for children and adolescents, irritable mood is included as criteria. For a diagnosis of depression, these symptoms must significantly impact on the young person's daily life and functioning (American Psychiatric Association, 2013). Many children and adolescents with depression suffer from comorbid mental health disorders, with estimates ranging between 40-90% of those with depression having a second comorbid disorder, and up to 50% having three or more comorbid disorders (Birmaher et al., 2007).

Adolescent depression is a significant concern for public health, as it is linked with educational impairment (Fletcher, 2010), poorer physical health (Keenan-Miller, Hammen, & Brennan, 2007), and is a major risk factor for suicide (Wilkinson, Kelvin, Roberts, Dubicka, & Goodyer, 2011). Depression in early adolescence has been estimated to double the risk of antisocial behaviour in later adolescence (Rice, Lifford, Thomas, & Thapar, 2007). Research suggests that depression will reoccur in 40-70% of those who have been depressed during adolescence (Rutter, Kim-Cohen, & Maughan, 2006), and early onset depression increases the risk of treatment-resistant depression in later life (Hatcher-Kay & King, 2003). Furthermore, depression in adolescence is predictive of a range of other mental disorders in adulthood (Fergusson, Horwood, Ridder, & Beautrais, 2005), including mood disorders and substance abuse (Fichter, Kohlboeck, Quadflieg, Wyschkon, & Esser, 2009). The emergence of

depression during adolescence is therefore associated with emotional and physical impairment across the lifespan, demonstrating the need to identify effective treatments for adolescent depression.

1.4   Treatment for Adolescent Depression

The National Institute for Clinical Excellence (NICE) provides national guidance in the UK for the appropriate treatment and care of conditions. In the guidelines for the treatment of moderate to severe depression in children and adolescents, evidence-based psychological therapies are recommended as the first line of treatment (NICE, 2005). International guidelines advise psychological therapies and/or Selective-Serotonin Re-uptake Inhibitor (SSRI) antidepressants for the treatment of adolescent depression (Birmaher et al., 2007; Cheung et al., 2007, 2018). NICE guidelines previously cautioned against prescribing antidepressants unless the adolescent is unresponsive to psychological therapy, in which case they recommended fluoxetine, a SSRI antidepressant, in addition to psychological therapy (NICE, 2005). Fluoxetine is currently the only approved antidepressant for adolescents in the UK (NICE, 2005). There is evidence for the effectiveness of fluoxetine in the treatment of depression in children and adolescents, with a meta-analysis finding that between 23% and 57% of young people with depression responded to fluoxetine (Hetrick, McKenzie, Cox, Simmons, & Merry, 2012). However, there are significant concerns about the elevated risk it presents to self-harm and suicidal behaviour. The most recent systematic review and meta-analysis of clinical trials for SSRIs, including fluoxetine, found that serious risks, including suicide and aggression, were underreported (Sharma, Guski, Freund, & Gøtzsche, 2016). The 2015 update to the NICE guidelines recommended that combined psychological therapy and fluoxetine can be offered as an alternative first line of treatment (NICE, 2015), yet the potential harm associated with SSRIs remains unclear.

Another concern with antidepressant medication is that qualitative studies with young people have found that medication is often not acceptable to young people. For instance, qualitative research has found that young people taking medication linked it to feelings of shame, not

feeling normal and feeling different from peers (Kranke, Floersch, Kranke, & Munson, 2011). Studies have consistently found that adolescents prefer talking therapies over medication for mental health treatment in both clinical (Jaycox et al., 2010) and non-clinical samples (Bradley, McGrath, Brannen, & Bagnell, 2010; Caporino & Karver, 2012). Psychological therapies therefore appear to be more acceptable to adolescents compared to medication in the treatment of mental health problems.

Evidence-based psychological therapies outlined in the NICE guidelines for treating adolescent depression include cognitive behavioural therapy (CBT), psychoanalytic psychotherapy, interpersonal therapy (IPT) and family therapy (NICE, 2005). CBT has been the most well-studied psychological therapy, and meta-analytic studies provide strong evidence for its effectiveness in the treatment of depression in adolescents (Compton et al., 2004; Fonagy et al., 2015; Harrington, Whittaker, & Shoebridge, 1998; Harrington, Whittaker, Shoebridge, & Campbell, 1998; Klein, Jacobs, & Reinecke, 2008; Munoz-Solomando, Kendall, & Whittington, 2008; Weisz, McCarty, & Valeri, 2006). Much less research has been conducted investigating the effectiveness of other forms of psychotherapy, although there is some evidence for IPT (Fonagy et al., 2015; Gunlicks-Stoessel, Mufson, Jekal, & Turner, 2011; Mufson et al., 2004; Tang, Jou, Ko, Huang, & Yen, 2009) and family therapy (Brent, Kolko, Birmaher, Baugher, & Bridge, 1999; Diamond, Reis, Diamond, Siqueland, & Isaacs, 2001; Diamond et al., 2010; Fonagy et al., 2015; Sanford et al., 2006). Until recently, very little research had investigated psychoanalytic psychotherapy in the treatment of adolescent depression. One previous randomised controlled trial (RCT) found evidence for its effectiveness (Trowell et al., 2007; Trowell, Rhode, & Joffe, 2009).

In 2005, it was acknowledged in the NICE guidelines that these psychological treatments (to varying extents) had evidence for their effectiveness in the treatment of adolescent depression, while the longer-term effectiveness of these treatments were, as yet, unknown. NICE (2005) advised that there was need for a sufficiently powered RCT to investigate the longer-term effectiveness of psychological treatment for

adolescent depression. This paved the way for what came to be known as the Improving Mood with Psychoanalytic and Cognitive Therapy (IMPACT) study (Goodyer et al., 2011, 2017a, 2017b).

The IMPACT study is the largest trial to date investigating psychological therapies in the treatment of adolescent depression. This thesis is based on the IMPACT research study. The study compared CBT, short term psychoanalytic psychotherapy (STPP) and a brief psychosocial intervention (BPI) in 465 adolescents with moderate to severe depression, who had been clinically referred to a Child and Adolescent Mental Health Service (CAMHS) in the UK (Goodyer et al., 2011). In the IMPACT study, all three treatments were found to be equally effective with 78% of the sample no longer meeting diagnostic criteria for depression one year after the end of treatment (Goodyer et al., 2017a). Thus all three treatments were found to be equally effective in relapse prevention of depression, and they were also found to be equal in terms of cost-effectiveness (Goodyer et al., 2017a). The analysis of the trial was intention-to-treat, such that dropouts from therapy were included in the analysis, and outcome data were collected from cases regardless of whether or not they completed therapy. It was predicted that there would be a considerable number of adolescents who would drop out of their allocated treatment in the IMPACT trial (Midgley, Ansaldo, & Target, 2014); yet to date this is an area that has not been investigated in relation to the IMPACT sample. Dropout of treatment is a crucial area for research and is the focus of the research in this thesis.

1.5   Engaging adolescents in treatment

Engagement is viewed as an important aspect of effective treatment for mental health conditions (Young Minds, 2014). Engagement in treatment consists of several components, beginning with a client's decision to seek treatment, followed by whether they attend the sessions and participate in them (Interian, Lewis-Fernández, & Dixon, 2013). Staudt (2007) argued that while the early stage of treatment is critical to engage clients, engagement is an on-going process throughout the course of treatment. Yatchmenoff (2005) made the important distinction between compliance

and full participation in treatment. They described the former as "going through the motions" (p. 85). For instance, a client may attend their sessions without actively participating in them, so attendance on its own does not constitute engagement in treatment (Staudt, 2007). Full participation may be regarded as the client being actively involved in the therapeutic process. Engagement can therefore be considered as being on a continuum, which will fluctuate throughout the course of treatment (Donnellan, Murray, & Harrison, 2013). The issue of engagement may be particularly pertinent to the context of treatment of youth, who often do not make the decision to enter treatment for themselves (Kazdin, 1996) and therefore may be less motivated to participate in treatment, compared to adult clients who tend to seek treatment for themselves.

Staudt (2007) differentiated between two key aspects of engagement: behavioural and attitudinal. Behavioural components of engagement in Staudt's view are client behaviours such as attending sessions and complying with tasks in treatment (such as homework), while attitudinal components of engagement refer to the client's emotional investment in and commitment to the treatment. In order for a client to feel invested in the treatment they must believe that it is worthwhile and can help them. Clients who are emotionally invested will have a positive attitude towards treatment, and will view treatment as worth their time and efforts (Staudt, 2007).

More recently, King et al. (2014) developed a conceptual framework of child and family engagement in treatment. Based on a review of the literature, they defined engagement as the client's state of motivational commitment in the treatment. This motivational framework therefore views engagement as an optimal state in which the client is hopeful that the treatment can help, acknowledges the need for treatment and is committed to it, and feels confident in carrying out the tasks in treatment. In this optimal state, the client is receptive and willing to participate in treatment, and believes that they can achieve positive change (King, Currie, & Petersen, 2014). While engagement is viewed from a motivational perspective, the authors also acknowledge that this will fluctuate throughout treatment, and clients will experience setbacks,

such as treatment not meeting their expectations or life events that may interfere with their treatment. King et al. (2014) suggested that the therapist's role is to facilitate conditions that empower the client's mind-set to reach this optimal state of engagement.

Adolescents have long been regarded as one of the most difficult client groups to engage in therapy (Meeks, 1971). Adolescent development is characterised by establishing independence from adult figures, which may impact on their willingness to engage with clinicians in mental health services (Gopalan et al., 2010). Moreover, attending mental health services may conflict with their need for social acceptance and autonomy (Gopalan et al., 2010; Wisdom & Green, 2004). It is often assumed that engagement is necessary for positive outcomes from treatment (King et al., 2014). When a client stops attending treatment without the agreement of their therapist, this may be referred to as them having disengaged from treatment, or having dropped out.

1.6   Conceptualising Dropout

In the Oxford English Dictionary, dropout has been defined as "to withdraw or disappear from one's (or its) places in a series, group, etc.; to 'opt out' from society" (Oxford University Press, 2018). The term dropout first appeared in American education literature at the turn of the 1900s, when dropping out of high school was recognised as a "social problem" (Dorn & Johanningmeier, 1999, p.193). By the 1960's, high school education had become accessible to all, not just the elite of society. This resulted in an expectation within society that adolescents should graduate from high school (Dorn, 2003). Compulsory school attendance laws were then passed and greater importance was placed on education within society (Dorn, 1993). This brought about the need for a term to describe those young people that failed to meet this standard of society. This term was dropout. Failure to meet this social expectation or norm of graduating from high school was thought of as social deviance, linked with negative outcomes such as juvenile delinquency, urban poverty, unemployment, crime, and low income (Dorn, 2003), further amplifying dropout as a social problem. While the term dropout first came from the education

literature, it has remained a social construct that has permeated various sectors of society, including psychotherapy (Kazdin, 1996). The first known use of the term dropout in the psychotherapy literature was in 1950 (Kirk & Headley, 1950), although in the decades prior to this, other terms for this concept were used in the psychotherapy literature, such as "termination" (Glover, 1924) and "discontinuation" (Herbert, 1922). Since this time, a vast range of terms have been used for dropout, including: attrition, defector, early withdrawal, non-attendance, non-completion, premature discontinuation, premature termination and unilateral termination (Armbruster & Kazdin, 1994; Barrett, Chua, Crits-Christoph, Gibbons, & Thompson, 2008; Cottrell, Hill, Walk, Dearnaley, & Ierotheou, 1988; Hatchett & Park, 2003; McMurran, Huband, & Overton, 2010; Reis & Brown, 1999; Swift, Callahan, & Levine, 2009; Swift & Greenberg, 2012; Westmacott, Hunsley, Best, Rumstein-McKean, & Schindler, 2010).

Dropout from psychotherapy has therefore been of much interest throughout the past century, yet the term dropout was imported from the education literature and little conceptual work has gone into defining it for psychotherapy research. Psychotherapy dropout remains a poorly understood phenomenon, lacking in a strong theoretical foundation (Cooper et al., 2018). While regarded as intuitively easy to recognise for clinicians, as described by Hatchett and Park (2003): "I know it when I see it" (p. 226), it has proved challenging in the academic literature to establish a strong conceptual definition of dropout. Dropout has typically been conceptualised as a client ending therapy prematurely, where they have made the decision unilaterally without the agreement of their therapist (Pekarik, 1985). Based on this conceptualisation, dropout is viewed as the client's disengagement from treatment, without having agreed it with their therapist. A new way of conceptualising dropout was later proposed by Hatchett and Park (2003), whereby dropout is viewed as a client discontinuing therapy prior to recovering from the problems that led them to seek treatment. From this perspective, clients who end treatment after recovering from the problems for which they sought treatment would be considered as treatment completers, while clients who end treatment without recovering from the difficulties for which they

sought treatment would be considered as treatment dropouts (Hatchett & Park, 2003).

1.7   Operationalising dropout

There is as much variation in the terms used for dropout as there is in the way dropout has been operationalised in the literature and definitions of dropout in the psychotherapy literature have been inconsistent. In fact, the term "definitional chaos" has been used to describe the psychotherapy dropout literature (Armbruster & Kazdin, 1994). Although there is overlap between the different operational definitions, the main ways in which dropout has been operationalised will be discussed in turn. Each operational definitions of dropout will be discussed in relation to the two competing conceptual definitions of dropout described above.

1.7.1   Therapist judgement

The most common operational definition of dropout in the literature to date is based on the therapist judgement. By this definition, a client is regarded as having dropped out if they unilaterally terminate treatment and the therapist considers it inadvisable, as reported by the therapist (de Haan, Boon, de Jong, Geluk, & Vermeiren, 2014; de Haan, Boon, Vermeiren, Hoeve, & de Jong, 2015; Kazdin, Mazurick, & Siegel, 1994; Swift & Callahan, 2011; Warnick, Gonzalez, Robin Weersing, Scahill, & Woolston, 2012).

This definition fits with the conceptualisation of dropout being the premature ending of treatment without the agreement of their therapist, as it specifically focuses on the therapists judgement as to whether the ending of treatment was appropriate or not.

It is widely accepted that dropout can occur after any number of sessions (de Haan et al., 2015; Johnson, Mellor, & Brann, 2008; Wierzbicki & Pekarik, 1993), and therefore a strength of this operational definition is its flexibility as it does not presuppose a treatment duration required to classify a client as a completer or dropout. Another strength of this definition is that it is regarded as face valid, as the concept of dropout

stems from therapists' observations that some clients end treatment inappropriately (Wierzbicki & Pekarik, 1993).

However, concerns about the reliability of this operational definition have been raised, as it has been acknowledged that therapists may use different criteria to judge the appropriateness of the ending of treatment (Wierzbicki & Pekarik, 1993). There are no specific criteria, clinical guidelines or decision-making aids to assist therapists in making dropout judgements. Therefore this approach to defining dropout is highly subjective, dependent on the clinician's own views and their therapeutic orientation. Therapists will differ in what they consider an appropriate time to end treatment. For instance, in exploratory treatments such as psychoanalytic psychotherapy, decisions to end treatment may be less aligned with symptom remission compared with other approaches, such as CBT. The meaning of an agreed ending is therefore likely to differ between treatment modalities, making it difficult to compare findings using this definition across different treatment modalities.

1.7.2 Non-attendance

Another approach to operationalising dropout is based on non-attendance, where the client is considered to have dropped out if they do not attend their last scheduled appointment or if they repeatedly fail to attend or cancel appointments, resulting in no further contact with the therapist (Armbruster & Fallon, 1994; Corning & Malofeeva, 2004; Deane, 1991; Issakidis & Andrews, 2004; Johnson, Mellor, & Brann, 2008; Kazdin, Holland, & Crowley, 1997; Nock & Kazdin, 2001; Schneider, Gerdes, Haack, & Lawton, 2013; Swift et al., 2009; Warnick et al., 2012). This definition essentially classifies dropouts as those clients who scheduled an appointment, thus agreeing to continue with treatment, but then ended treatment unilaterally without agreeing or discussing it with their therapist.

This operational definition best fits with a conceptual definition of dropout based on the client ending treatment without the agreement of their therapist, as the fact that a session had been scheduled indicates

that the client and therapist had agreed to continue treatment, and therefore the ending of treatment was not agreed.

Strengths of this definition are that it is not subject to the biases and subjectivity of therapist judgements, offering ease of measurement. This definition also allows for the reality that dropout can occur at any point in treatment.

However, the strengths of this definition are largely outweighed by its substantial limitations. This operational definition may be viewed as a rather inflexible way of measuring dropout, as it fails to account for the reason for ending treatment or the appropriateness of the ending of treatment. It is also regarded as a conservative measure of dropout, as it would classify someone as completer if they don't schedule another appointment, even though the ending of treatment may have been inadvisable in the therapists view (Wierzbicki & Pekarik, 1993). Moreover, someone who has scheduled another appointment may not attend due to feeling better, and from his or her own perspective, it may be an appropriate time to end therapy. Furthermore, if someone was due to complete treatment, and did not attend their final session, they would be classified as a dropout. This definition would lead to very different dropout classifications compared with other approaches to defining dropout, such as those based on therapist judgement (Hatchett & Park, 2003; Pekarik, 1985). This operational definition may lead to a way of classifying dropout that may not be clinically meaningful.

1.7.3 Treatment duration

Many studies have classified dropout based on treatment duration, but this has been operationalised in many different ways. A few studies have used mean-split or median-split procedures, whereby clients who have attended less than the average number of sessions for the sample in their study are considered to have dropped out (Hatchett & Park, 2003; Miller et al., 2008; Swift et al., 2009). Other approaches to using treatment duration to operationalise dropout have been based on failure to attend a specific number of sessions, ranging from six sessions to 39 sessions (Bados, Balaguer, & Saldaña, 2007; Baruch, Vrouva, & Fearon, 2009;

Charnas, Hilsenroth, Zodan, & Blais, 2010; Jensen, Mortensen, & Lotz, 2014; Kazdin & Mazurick, 1994; Kazdin, Mazurick, & Bass, 1993; Oei & Kazmierczak, 1997; Robbins et al., 2006; Venable & Thompson, 1998; Warnick et al., 2012; Wergeland et al., 2015), while others have considered clients to have dropped out if they have attended less than a certain proportion of the planned treatment (Kazdin, 1990; Lock, Couturier, Bryson, & Agras, 2006; Peters, Calam, & Harrington, 2005; Wintersteen, Mensinger, & Diamond, 2005). These studies vary in the proportion of sessions attended that is considered to constitute treatment completion. In some studies, they consider a young person to have dropped out if they discontinue treatment in the first quarter of the treatment, with the rationale that this is the early phase of treatment, prior to the majority of the work having been completed (Kazdin, 1990, 1996; Kazdin et al., 1993). Another study considered families to have dropped out if they attended less than half of the planned treatment (Peters et al., 2005), while others classified clients as dropouts if they did not attend the majority (Lock et al., 2006; Wintersteen et al., 2005) or the full course of treatment (Jensen et al., 2014; Nock & Kazdin, 2001; Oei & Kazmierczak, 1997; Pellerin, Costa, Weems, & Dalton, 2010; Tikka, Blackhall, Jones, & Law, 2010; Wergeland et al., 2015).

This operational definition appears to lack a strong conceptual framework. It is not measuring whether the ending was agreed or not, nor is it measuring whether the client ended treatment prior to recovery. It is focused simply on treatment duration rather than the agreement or appropriateness of the ending.

This approach to operationalising dropout specifies a number of sessions required for treatment completion, providing an approach that offers ease of measurement (Hatchett & Park, 2003), and avoids issues of therapist bias and subjectivity inherent in definitions reliant on therapist judgement.

However, this definition has substantial limitations. Firstly, this operational definition lacks a clear conceptual framework, as it is focusing on treatment duration, which fails to capture whether the ending of treatment was premature and prior to meeting goals for treatment or

having made clinically meaningful improvement. This definition is essentially a dichotomised measure of therapy duration (Hatchett & Park, 2003), and is unlikely to be clinically meaningful. This method is problematic, as to take the example of Hatchett and Park's (2003) study, those attending three sessions were considered dropouts, while those attending four or more sessions were considered continuers. The median-split procedure used in this study imposed an arbitrary cut-off between dropouts and continuers; it had no theoretical or clinical rationale, nor did it tell us anything about the appropriateness of the ending of treatment. It would also be difficult to use this definition in open-ended therapies, where the treatment duration has not been pre-determined.

Another issue with this operational definition is that to determine a specific number of sessions that should be considered as treatment dropout or completion assumes that there is a set number of sessions needed to bring about clinical change (Hatchett & Park, 2003). In reality, this is not the case; dropout can occur at any point in treatment and the number of sessions needed for clinical change differs between clients. The lack of consensus over the number (or proportion) of sessions required to be considered a completed treatment means that in reality, this approach to operationalising dropout has been utilised in numerous different ways. This means that even across studies using a treatment duration based definition of dropout, it is difficult to compare their results due to the different criteria used for dropout. An operational definition should assist researchers in building cumulative knowledge about the phenomenon of interest, but in practice, treatment duration based definitions have failed to do so due to lack of consensus about the number or proportion of attended sessions required for treatment completion.

Overall, this approach to operationalising dropout is inflexible, lacks a conceptual framework, provides arbitrary criteria for classifying clients as completers or dropouts and fails to account for the appropriateness of the ending of treatment. Thus, it has been argued that treatment duration based definitions are not fit for measuring dropout

(Hatchett & Park, 2003), which seems appropriate given that this approach does not appear to be measuring conceptual definitions of dropout.

1.7.4 Adequate dose

Another way of operationalising dropout, which may be regarded as broadly fitting into the "treatment duration" definition, is the "adequate dose" approach. This determines that failure to attend a specific number of sessions, based on what is considered an "adequate dose" of an evidence-based treatment, constitutes dropout. Using this approach, clients are classified as dropouts or completers depending on whether they have received the required "dose" of treatment (Bados et al., 2007; Charnas et al., 2010; Warnick et al., 2012; Wintersteen et al., 2005). For example, in one study, the pre-specified dosage considered as treatment completion was to have attended 12 sessions within a four month time period (Warnick et al., 2012). However, the term "adequate dose" is potentially an ill-chosen metaphor, as "dose" is defined as "a definite quantity of medicine or drug given or prescribed to be taken at one time" (Oxford University Press, 2018); not how long it is taken for. The term "adequate dose" comes from drug trials, where there may be a basis on which to say what the "adequate dose" of a drug treatment may be, which does not necessarily translate to psychological treatment.

"Adequate dose" based dropout definitions do not appear to be measuring either conceptual definition outlined in section 1.6, as this definition is not focusing on whether the ending was agreed or whether the client had recovered. Conceptually, this definition therefore seems more focused on whether the ending was premature in terms of the time spent in treatment.

Strengths of this approach are it provides a reliable measure, as well as attempting to provide a theoretical basis for classifying whether clients have dropped out, based on the observation that evidence based treatments for mental health problems tend to advise a set number of sessions over a specific period of time (Silverman & Hinshaw, 2008; Warnick et al., 2012). This contrasts with the many other studies using

treatment duration methods that appear to have made arbitrary distinctions between dropouts and completers, based on the number of sessions attended, without offering a clear rationale for these classifications.

However, a key limitation of this definition is that as yet, it is unknown what should be considered as a sufficient "dose" or duration of psychological treatment. This means the "dose" defined in studies using this approach provide an arbitrary dichotomisation of treatment duration, as with other treatment duration based definitions. There is no set number of sessions that constitutes a "sufficient" treatment duration, because different clients may need different numbers of sessions before they reach their goals. For instance, in adolescents receiving psychological treatment for depression, response to treatment may occur after as few as one or two sessions or as many as 30 delivered over 6-9 months (Goodyer et al., 2017b). It seems likely that different clients need different levels of input, thus hampering the usefulness of this definition.

1.7.5 Ending treatment prior to recovery

Some studies have defined dropout based on a client ending treatment prior to recovering from the issues that motivated them to seek treatment (Bados et al., 2007; Swift et al., 2009). This approach seeks to provide a more objective judgement of the appropriateness of the ending of treatment compared to definitions based on therapist judgement. To do this, assessment of whether the ending of treatment is appropriate is based on clinical outcomes according to standardised outcome measures. Hatchett and Park (2003) proposed that clients should be considered to have dropped out if treatment ends before they have achieved clinically significant change. Clinically significant change is operationalised as the client demonstrating reliable improvement, whereby scores on an outcome measure fall into the non-clinical range. Others have defined clinically significant change according to the Reliable Change Index (Jacobson & Truax, 1991), regarded as a 33% reduction in pre-treatment scores on an outcome measure (Bados et al., 2007).

This definition is measuring the conceptual definition of dropout based on the client ending treatment prior to recovering from the issues that led them to seek treatment (Hatchett & Park, 2003).

The strengths of this approach are that it provides a reliable measure that is not subject to biases that are inherent in approaches based on therapist's dropout judgements. This approach likely offers an approach that will allow comparability across different models of treatment because of its focus on outcomes, whereas comparability across different treatments is more difficult with definitions based on therapist judgement or treatment duration. Another strength of this definition is that it allows for the reality that dropout can occur at any point in treatment.

However, this definition also has substantial limitations. It relies on standardised measures of symptom reduction, which may not capture the goals for treatment or the reasons the client sought treatment, and therefore improvements may not be reflected in the scores on these outcome measures. Furthermore, not all clients will return to normal functioning after receiving treatment (Hatchett & Park, 2003; Jacobson & Truax, 1991). Clients may complete therapy without meeting the criteria for clinically significant change; despite having engaged with and completed therapy. This approach assumes that if someone completes a course of treatment they will recover, but in the context of complex mental health problems, this is not necessarily the case (Edbrooke-Childs, Wolpert, Zamperoni, Napoleone, & Bear, 2018). For instance, in adolescents receiving routine treatment for anxiety and depression, as many as 50% may not have made clinically reliable improvement by the end of treatment (Edbrooke-Childs et al., 2018). This approach to defining dropout is limited as it is based on predefined quantitative change in outcomes, but fails to tell us how appropriate the ending of treatment is from the perspective of the client and therapist. Most importantly, this definition focuses on clinical change, rather than whether or not the client disengaged from therapy.

1.7.6 Non-starters

Generally considered a distinct group in the literature, are those who refuse treatment. These are clients who go through the assessment process and are offered treatment, but they do not begin treatment (Garfield, 1989). This group have been termed "refusers" (Fernandez et al., 2015; Lincoln et al., 2005), "prior dropouts" (Sales, 2003), "non engagers" (Thormählen et al., 2003), "intake only" (Hatchett & Park, 2003; Swift et al., 2009) and "non starters" (Berghofer, Schmidl, Rudas, Steiner, & Schmitz, 2002; Wang & Werbart, 2014).

Conceptually, this definition refers to failure to engage in treatment in the first place, compared with the other definitions, which refer to clients who have attended some sessions who then disengage.

The strength of this definition is that it provides a distinction between clients who do and do not take up the treatment on offer. While generally accepted as distinct from clients who begin treatment and then drop out (Hatchett & Park, 2003), little attention has been paid to this group and not much is known about clients who present at services but choose not to take up treatment. As this phenomenon is conceptually different from dropout it will not be examined in this thesis.

1.8   Comparing operational definitions of dropout

The diversity of operational definitions of dropout raises questions about whether they are measuring the same construct. A limited body of literature has empirically tested the level of agreement between different operational definitions. Dropout rates have been found to be radically different, even within samples, depending on the operational definition used. For example, one study compared dropout rates within the same sample of 135 adults who attended therapy, using five definitions of dropout. Dropout rates ranged from 8-77%, depending on which definition was used (Swift et al., 2009). Unsurprisingly, the lowest dropout rates have been found when dropout was defined as "intake only", where the client was offered treatment but did not attend any sessions (Hatchett & Park, 2003; Swift et al., 2009). In adults, the highest dropout rate (77%) was observed when dropout was based on failure to achieve clinically

significant change (Swift et al., 2009), and in children and adolescents, the highest dropout rate (88%) was found when the adequate dose (specified as 12 sessions) definition was used (Warnick et al., 2012). From these studies, definitions based on therapist judgement and non-attendance, resulted in similar estimates of dropout rates (Hatchett & Park, 2003; Swift et al., 2009; Warnick et al., 2012). This may reflect that therapists tend to base their judgements about dropout, at least in part, on whether or not a client attended their last session.

Definitions of dropout based on therapist judgement have generally been preferred to other definitions, due to their face validity and flexibility in allowing for the reality that dropout can happen at any point in treatment, as well as accounting for clinical judgement as to the appropriateness of the ending of treatment. This approach to defining dropout is not without its limitations, namely issues regarding the reliability and validity of this method. However, dropout definitions that provide more reliable methods, in that they avoid the subjectivity of therapist judgement, come at a cost. These approaches, such as treatment duration and non-attendance, are inflexible, do not account for the appropriateness of the ending of treatment, and appear to have been adopted due to their ease of measurement rather than having a clear conceptual framework. In particular, there are issues with basing dropout on treatment duration or an adequate dose model. These approaches fail to consider individual differences in how long it takes for a client to benefit from a given treatment. While a few sessions may be enough for one client, another could require many months or years of treatment. While there have been attempts to operationalise clinical change to provide a more objective measure of whether the ending of therapy is appropriate, these too are problematic as they assume that a client's reasons for seeking treatment are measureable by standardised outcome measures, which often may not be the case.

Thus, the most well accepted definition in the contemporary dropout literature appears to be based upon a client ending treatment unilaterally, without the agreement of their therapist (Hatchett & Park, 2003; Wierzbicki & Pekarik, 1993). While this definition is not without its

limitations, namely that it is subjective and likely to be influenced by the views and therapeutic orientation of the therapist, this is arguably the best definition in the existing literature for several reasons. Therapist judgement is face valid, provides flexibility for therapists to take into account the appropriateness of the ending in their dropout judgements, allows for the reality that dropout can happen after any number of sessions and directly seeks to measure the strongest conceptual definition in the literature to date: the unilateral ending of treatment on the part of the client, without the prior agreement of their therapist. For these reasons, a definition of dropout based on therapist judgement will be used in the research undertaken in this thesis. This definition is the most widely used in the existing literature, which will allow for comparison of findings from the research in this thesis to the existing literature.

1.9 The importance of studying dropout in the context of treatment for adolescents

While dropout has been extensively researched in adult psychotherapy, far less research has been carried out in the field of child and adolescent psychotherapy. There are likely to be inherent differences between dropout in children, adolescents and adults, in terms of dropout rates, risk factors for dropout and the reasons for dropout. We cannot assume that findings from studies with adult clients can be generalised to adolescents. This is because help seeking in youth often does not come from the child or adolescent themselves, but instead, frequently comes from an adult, such as their parent, caregiver or teacher (Kazdin, 1996; Kazdin et al., 1993). Moreover, it has been suggested that children and adolescents tend not to recognise for themselves that they are in need of professional help (Weisz, Huey, & Weersing, 1998). Children and adolescents may be less motivated to engage in therapy as they haven't sought therapy for themselves, and may not even consider themselves as in need of therapy. Furthermore, parents may have a strong influence on whether the child begins or continues with treatment. Both of these points are well accepted in the literature (Block & Greeno, 2011; Pekarik & Stephenson, 1988), but it is important to note that the influence of caregivers is likely to

become less significant with age. Adolescents aged 16 years and above are able to seek treatment in Child and Adolescent Mental Health Services (CAMHS) in the UK without parental consent (Department of Health, 2001). In some countries, the age at which adolescents can seek treatment without parental consent is lower, such as some states in the USA where children as young as 12 years old can consent to mental health treatment (McNary, 2014).

In childhood and early adolescence, parents are likely to be central to help seeking, practically supporting their child's treatment (such as scheduling appointments and arranging transportation to sessions), as well as being involved in aspects of the treatment itself. However, older adolescents can seek treatment independently and attend sessions by themselves. Older adolescents may need less practical assistance in attending treatment and parents may not be involved in the treatment at all, and therefore some adolescents may be able to decide for themselves whether or not to continue treatment.

Children may influence their parent's decisions to allow them to drop out of therapy. For example, they may object to going or become upset about going to therapy, and parents may discontinue therapy to avoid the challenge of persuading their child to attend (Chasson, Vincent, & Harris, 2008). Adolescents may be more able to physically refuse to attend their sessions, and parents may find they have less influence in whether or not their teenage child continues in therapy. Therefore it is important to consider the family, adolescent and the developmental context in which the treatment is taking place.

Studies of dropout in young people have tended to group children and adolescents together when conducting analyses to find predictors of dropout (de Haan et al., 2013). This is problematic, as adolescents are at a different developmental stage to children, with important developmental milestones, which may present additional challenges in engaging adolescents in therapy. Adolescence is a developmental period where key milestones include becoming more autonomous, questioning adult authority, and dependence on ones parents shifts towards their peer group and social world (Block & Greeno, 2011). Therefore engaging in

therapy with an adult therapist may conflict with an important task for this stage of development (Block & Greeno, 2011; Oetzel & Scherer, 2003). Block and Greeno (2011) argue that dropping out could in fact be a reflection of successfully achieving important developmental milestones of becoming independent and challenging adult authority. Therefore it is important to consider dropout within this developmental context, and to leave open the possibility that for some adolescents, dropping out of treatment may even have a positive meaning.

1.10 Theories of what leads to dropout

Some authors have developed conceptual models for understanding dropout in children and adolescents. The first was a conceptual model of dropout by Blotcky and Friedman (1984), followed by the risk factor model and barriers to treatment model, proposed by Kazdin and colleagues (Kazdin, 1996; Kazdin, Holland, & Crowley, 1997). Together, these models highlight a range of potential influences on dropout, including family factors that may influence their ability to engage in treatment and barriers in attending treatment. Each of these models will be discussed in turn.

An early paper presented a conceptual framework for understanding what leads adolescents to drop out from therapy, in which they outlined five key influences on dropout (Blotcky & Friedman, 1984). The first was the adolescent's avoidance of exploration of their difficulties. The second considered the relationship between the adolescent and therapist, whereby difficulties in the therapeutic relationship, if not addressed, may lead to premature termination. The third focused on the influence of the treatment approach, suggesting that adolescents may drop out of treatment if the therapist is inflexible in their approach and fails to adapt their approach to the needs of the adolescent. The fourth considered the influence of the family system on dropout; for example, the family feeling threatened by the treatment may lead to the treatment ending prematurely. The fifth considered the impact of practical influences, including factors such as a change in personal circumstances, which may make it difficult for the adolescent to keep attending therapy.

Blotcky and Friedman (1984) proposed that these are the most salient influences on adolescent's decisions to drop out of treatment, reflecting the complex range of factors that may contribute to treatment dropout. This was a useful early contribution to the literature in acknowledging the range of factors that may contribute to dropout, yet the model was not subjected to direct empirical testing.

Kazdin (1996) later proposed a risk factor model, which has been highly influential in the child dropout literature. This model outlines conditions that may increase the likelihood of children dropping out of treatment. Kazdin's risk factor model proposed that a range of factors accumulate which increase the risk of a child dropping out of treatment, so this model acknowledged that there are likely to be many influences on dropout, as did the model by Blotcky and Friedman (1984). Risk factors for dropout may include socio-economic disadvantage, family constellation, parental stress and psychopathology, child behaviour, symptomology and academic functioning. Risk factors are conditions that are present at the point of intake, and cumulatively increase the risk of dropout; but do not account for what occurs in treatment that may impact on dropout. Empirical studies testing Kazdin's (1996) risk factor model will be discussed in Chapter 2. The purpose of the risk factor model is to identify those presenting with vulnerabilities that may increase the risk of them dropping out, as well as helping us to understand some of the potential causes of dropout. This is a useful model in helping to identify those most at-risk of dropout, so that engagement strategies and protocols can be developed and targeted towards those most at-risk of dropout (Kazdin, 1996). However, an important limitation of this model is that it does not take into account what happens in treatment that influences dropout, as it seems likely that risk factors of dropout will interact with a range of treatment factors. Another limitation of this model is that it does not provide a theory that would explain why each given risk factor is related to dropout.

Kazdin and colleagues also proposed the barriers to treatment model (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, & Breton, 1997). This model differs from the risk factor model as it focuses

on issues that occur after treatment has started, whereas the former focuses on factors that are present prior to the start of treatment. The barriers to treatment model proposed that families experience multiple barriers when attending treatment which increase the likelihood of them dropping out. Barriers to treatment may include stressors or practical obstacles in attending appointments (such as transportation), not perceiving the treatment as relevant to their problems, finding treatment too demanding or having a poor relationship with their therapist. This theory led to the development of a psychometric scale for measuring barriers in treatment, and studies using this scale found that families who perceive few barriers in treatment are more likely to continue in treatment (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997; Nock & Ferriter, 2005), illustrating the complex range of factors that may contribute to dropout.

Taken together, the models proposed by Kazdin and colleagues outlined risk factors and treatment factors that may increase the odds of dropout, and have been supported by their empirical work (Kazdin, 1996; Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997; Nock & Ferriter, 2005). These models acknowledge the range of contributory factors that are likely to influence dropout.

1.11 Conclusion

The overall aim of this thesis is to seek to understand therapy dropout in the context of adolescent depression. This chapter began with a review of the literature in relation to adolescent depression and the evidence base for its treatment, with psychological therapies being the first port of call for the treatment of depression in this age group, sometimes alongside antidepressant medication (NICE, 2013). Despite the promising evidence base for psychological therapies, high dropout rates raise questions about the utility of these treatments if approximately half of young people are estimated to drop out of mental health treatment (de Haan et al., 2013). If young people do not engage or disengage from the treatments on offer, it is likely to limit the extent to which these interventions can help the populations they seek to treat (Fonagy et al., 2015).

Conceptual and operational definitions of dropout were reviewed. The most well accepted conceptual definition of dropout is based on the client ending treatment prematurely, without the agreement of their therapist (Pekarik, 1985). The issue of operationalising dropout was discussed, as studies of dropout have used a range of different definitions, which has made it difficult to build cumulative knowledge about dropout. The most well accepted operational definition was regarded as the therapist's judgement that the client ended treatment without their agreement and they regarded it as inadvisable (Wierzbicki & Pekarik, 1993). This definition will be used in the research in this thesis. This chapter then moved to an overview of the importance of the study of dropout specifically in relation to young people, as it cannot be assumed that findings from studies with children or adults can be applied to an adolescent population, due to the unique developmental challenges that this age group face. Finally, theoretical models for understanding what leads to dropout were reviewed. Most notably, Kazdin's risk factor and barriers to treatment models were discussed. The former considers the range of pre-treatment vulnerabilities that have been regarded as risk factors for dropout (Kazdin, 1996), while the latter considered aspects of treatment that may contribute to dropout (Kazdin, Holland, & Crowley, 1997). The next chapter will discuss the empirical studies that have been undertaken in relation to dropout with children and adolescents.

2   Empirical studies of therapy dropout in children and young people

2.1   Introduction

This chapter will provide an overview of the empirical literature relating to therapy dropout for children and adolescents. To date, little research has focused specifically on adolescents, so this chapter will include studies of dropout relating to samples under the age of 18 years, including those with younger children as well as adolescents. However, where there is a dearth of research, studies with adult clients will also be drawn on (specifically in relation to clinical outcomes associated with dropout and qualitative studies investigating reasons for dropout). This literature review is divided into four sections: dropout rates; predictors of dropout, clinical outcomes associated with dropout, and experiences of therapy that are relevant to dropout. This chapter will contextualise the research in this thesis, of which the overall aim is to seek to understand therapy dropout in the context of adolescent depression, by outlining the current state of knowledge of dropout in young people.

2.2   Dropout rates

Adolescents have been found to be at greater risk of dropping out of therapy than adults (Roseborough et al., 2016). In the most recent meta-analysis of dropout in child and adolescent outpatient care, dropout rates for the studies reported on ranged between 16-72% (de Haan et al., 2013). It has been difficult to estimate the average dropout rate with precision due to the lack of consistency in how dropout has been operationally defined across different studies (Cooper et al., 2018). However, dropout rates have been estimated to be lower when the definition of dropout is based on therapist judgement (average dropout rate = 35%) compared with definitions based on treatment duration (average dropout rate = 45%) (de Haan et al., 2013). The meta-analysis compared dropout rates in efficacy studies, which aim to determine whether an intervention can cause significant benefits in a controlled

environment, with dropout rates in effectiveness studies, which aim to evaluate interventions in a naturalistic setting, to reflect how the intervention will work when practiced in the real world. Dropout rates varied according to the type of study: efficacy studies, which have strict selection procedures and protocols, tended to have lower dropout rates (average dropout rate = 26%), compared with effectiveness studies which had more naturalistic samples, where dropout rates were far higher (average dropout rate = 45%), when dropout was defined according to therapist judgement. To date, little is known about treatment dropout rates specifically in young people with depression. Nevertheless, the literature leaves little doubt that dropout frequently occurs across mental health services, which spans across a range of client groups, disorders, treatment modalities and settings. A meta-analysis (Fernandez, Salem, Swift, & Ramtahal, 2015) of CBT dropout found a notably higher dropout rate (36.4%) for depressed adults compared with other client groups, such as those with anxiety disorders (19.6%) and psychosis (20.1%), when dropout was defined as failure to complete the planned treatment protocol. Given that adult clients with depression have been found to be at increased risk of dropout (Fernandez et al., 2015), and that adolescents are at greater risk of dropping out than adults (Roseborough et al., 2016), there is a strong argument to focus on dropout specifically in relation to adolescent depression; an area that has been neglected in the literature to date.

2.3   Predictors of dropout

Much of the existing literature has focused on identifying predictors of dropout, potentially due to the ease and convenience of conducting such studies, using variables that are routinely collected (Cooper et al., 2018), as opposed to focusing on explaining or understanding dropout. Empirical studies of predictors of dropout will be discussed in this section, which is divided into seven domains. Four domains focus on pre-treatment characteristics that may be associated with dropout (also known as risk factors, as described in Kazdin's risk factor model, discussed in the previous chapter; Kazdin, 1996). These are: family socio-economic

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position; ethnicity and migration factors; parental characteristics; and child characteristics. Three domains focus on treatment factors: treatment modality; treatment factors and clinical change. While a vast body of literature has investigated predictors of treatment dropout, no known study has focused specifically on predictors of treatment dropout in the context of adolescent depression. The current evidence on predictors of dropout largely comes from studies of samples of children and adolescents with conduct problems.

2.3.1 Socio-economic position and family factors associated with dropout

Numerous studies have been carried out to investigate how family factors, including socio-economic position, are associated with dropout from treatment, across a range of clinical populations. These studies have empirically tested Kazdin's (1996) risk factor model, which outlines conditions that may increase the likelihood of families dropping out of treatment.

Socio-economic disadvantage has consistently been linked to increased risk of dropout, with the highest quality evidence coming from a meta-analysis, which included 20 studies that assessed socio-economic status with a large number of respondents (N = 8393; de Haan et al., 2013). In this meta-analysis, a small effect size was found (d = 0.38; confidence intervals not provided). Several studies conducted multivariate analyses and found socio-economic status had an independent contribution to the prediction of dropout, when controlling for a range of other risk factors including ethnic minority status, being from a single parent family, child dysfunction and parental stress (Kazdin, 1990; Kazdin et al., 1993; Kazdin, Stolar, & Marciano, 1995; Kazdin & Wassell, 1998). The majority of these studies were in samples of children and adolescents with conduct problems (Armbruster & Fallon, 1994; Fernandez & Eyberg, 2009; Kazdin, 1990; Kazdin, Mazurick, & Bass, 1993; Kazdin, Stolar, & Marciano, 1995; Kazdin & Wassell, 1998; Luk et al., 2001; Nock & Kazdin, 2001).

No known studies have specifically tested socio-economic status as a predictor of dropout in adolescents receiving treatment for depression. A few studies have investigated socio-economic status in youth with anxiety disorders, and they did not find socio-economic status to be predictive of dropout (Kendall & Sugarman, 1997; Pina, Silverman, Weems, Kurtines, & Goldman, 2003). Interpretation is difficult though because these studies did not focus exclusively on adolescents, as they included both children and adolescents in their samples, and operationalised dropout as failure to complete the full treatment protocol (Kendall & Sugarman, 1997; Pina et al., 2003); an approach which has been criticised for its focus on treatment duration which is unlikely to be clinically meaningful (Hatchett & Park, 2003). In summary, de Haan et al.'s (2013) meta-analysis provides support for an effect of socio-economic disadvantage on dropout in children and adolescents, albeit with small effect sizes. However, most evidence comes from studies with children with conduct disorders, while socio-economic status has not been found to predict dropout in youth with internalising problems.

Other family factors associated with risk of dropout for children and adolescents include being from a single parent family. Being from a single parent family has consistently been linked with dropout, with small effect sizes reported (d = 0.39) in de Haan et al.'s (2013) meta-analysis, drawing on data from 15 studies. While the majority of these studies were conducted with children and adolescents with externalising problems, one study was conducted in an outpatient clinic in the USA, used data from 1098 consecutive referrals, when dropout was based on therapist judgement. The authors found children from single parent families to be at significantly greater risk of dropout than children living with both parents, when controlling for child age and sex, and medical insurance status (Warnick et al., 2012). Findings with young people with internalising disorders have been mixed. Some studies have not found a significant bivariate relationship between being from a single parent family and dropout in children and adolescents with anxiety disorders, including when dropout was defined according to therapist judgement (Gonzalez, Weersing, Warnick, Scahill, & Woolston, 2011) and failure to

complete the treatment protocol (Pina et al., 2003). It is unclear whether this is due to single parenthood being differentially associated with dropout in children with anxiety disorders compared with other disorders, or whether this is due to methodological differences in these studies.

One study found homelessness to be a strong predictor of dropout, when controlling for age, anxiety, depression and conduct problems (Baruch et al., 2009). Homeless youth were found to be five times more likely to drop out of therapy than those with a stable home in a sample of adolescents receiving psychoanalytic psychotherapy (OR = 5.57, 95% CI = 1.28: 24.26; Baruch, Vrouva, & Fearon, 2009).

These studies indicate that it may be the most disadvantaged families at the greatest risk of dropout, thus providing support for Kazdin's (1996) risk factor model, although with the exception of homelessness, effect sizes are small for family factors in their ability to predict dropout (de Haan et al., 2013).

2.3.2 Ethnicity and migration associated with dropout

Ethnic minority status was found to be a robust predictor of dropout in de Haan et al.'s (2013) meta-analysis, across a range of contexts, disorders and treatment modalities. While the effect size found was small (d = 0.36), it was significant and based on 14 studies with many respondents ($N = 3520$), showing increased risk of dropout among ethnic minority youth. However, the ethnic minority group in the meta-analysis represented a diverse range of cultures and ethnic groups, yet it is likely that the effect of ethnicity on dropout will be influenced by cultural differences, attitudes and values; which will differ between ethnic groups (Kazdin et al., 1995). For example, cultural customs about how young people engage with adults or figures of authority are likely to influence how they will engage with a therapist (Mirabito, 2001). In response to this issue, de Haan and colleagues (2018) published a systematic review, to consider possible differences in dropout rates between ethnic minority groups. The authors included 27 studies in their review but were unable to conduct a meta-analysis, as only five studies reported dropout rates by individual ethnic groups. The authors concluded that ethnic minority youth

have a higher risk of dropping out of treatment compared with ethnic majority youth and found some support for a difference in dropout rates between different ethnic groups. The most consistent finding was that in the United States, African Americans were at greater risk of dropout than those of ethnic majority status, whereas other minority groups did not appear to be at greater risk of dropout compared with those of ethnic majority status. However, there was an insufficient number of studies to identify further distinctions for risk of dropout between different ethnic groups (de Haan, Boon, de Jong, & Vermeiren, 2018).

The majority of the studies included in de Haan et al.'s (2018) review were carried out in the United States, with only three having been conducted in Western Europe. There may be important differences in these different contexts, as access to healthcare in Western Europe is largely independent of financial constraints (de Haan et al., 2018), which differs from healthcare systems in other contexts including North America. The best available evidence of the association between ethnicity and dropout in Western Europe comes from de Haan et al.'s (2015) study, which was conducted in the Netherlands. This study had several strengths, including comparing dropout rates across multiple ethnic minority groups, using the preferred dropout definition based on therapist judgement, and the authors analysed data separately for child and adolescent participants, which many previous studies have failed to do. The authors reported several important findings. Firstly, they found the risk profile of dropout to differ for children and adolescents, with fewer differences between completers and dropouts found in the sample of children compared with the adolescent sample. This supports the need to study adolescents in their own right. Secondly, they found that specific ethnic groups differed in terms of whether they predicted dropout. Surinamese and Antillean adolescents were at significantly greater risk of dropout compared with native Dutch adolescents, whereas Turkish/Moroccan and other ethnic minority groups were not found to be at significantly greater risk of dropout than native Dutch adolescents (de Haan et al., 2015), highlighting the need to consider how specific ethnic differences relate to risk of dropout. Thirdly, the authors found that ethnic

minority status remained a significant predictor of dropout when socio-economic status was controlled for in multivariate analysis (de Haan et al., 2015). This is an important finding, as socio-economic status and ethnicity are interrelated (Chen, Martin, & Matthews, 2006; de Haan et al., 2018; Saxena, Eliahoo, & Majeed, 2002); yet this indicates that both factors appear to be independent contributors to risk of dropout. However, the mechanisms through which these factors influence dropout are as yet unknown.

There are various ways in which ethnicity may impact on dropout. It may be to do with cultural differences, attitudes and values that influence dropout (Kazdin et al., 1995). It is also important to acknowledge that ethnic minorities are likely to get a therapist from an ethnic group different to their own, whereas adolescents from the majority ethnic group are more likely to get a therapist from their own ethnic group. It is possible that the effect of ethnic minority status on dropout is in part, down to lack of fit between the ethnicity of the adolescent and therapist. This issue will be discussed further below, in section 2.3.6, in relation to treatment factors associated with dropout.

One study went beyond looking at ethnicity, to examine how acculturated ethnic minorities were within the United States and how it related to dropout (Kim, Lau, & Chorpita, 2015). Acculturation was measured using language spoken and the length of time the family had spent in the United States. They found that the odds of ending treatment as planned were three times higher for less acculturated families compared with highly acculturated families (OR = 3.38). This suggests that newcomers to the United States were more likely to complete treatment. The authors suggested this may be because families who were more acculturated had greater social support, whereas newcomers may have been more likely to engage in treatment due to having fewer alternative support systems (Kim et al., 2015). This study was exploratory and had a relatively small sample ($N = 93$), with participants from a wide age range (range = 5-15 years), but nevertheless, uncovers some of the complexity in the study of ethnicity and dropout.

2.3.3 Parental characteristics associated with dropout

Parents are considered to play a significant role in their child's treatment, and attention has been paid to parents' characteristics that may be related to their child dropping out of treatment. The best available evidence for the association between parental characteristics and dropout comes from de Haan et al.'s (2013) meta-analysis, in which the strongest parental characteristic to predict dropout was mother's age, with the children of younger mothers being more likely to drop out of treatment for conduct and behavioural problems. Drawing on data from nine studies, with a large number of respondents ($N = 1243$), the authors found a medium effect size of mother's age ($d = 0.58$; de Haan et al., 2013). Mother's age has been found to have an independent contribution to the prediction of dropout in multivariate analyses, when family factors (socio-economic status and parental stress) and child factors (intelligence, conduct problems and ethnicity) were controlled for (Kazdin & Mazurick, 1994; Kazdin et al., 1993).

One of the next strongest parental predictors of dropout found in de Haan et al.'s (2013) meta-analysis was negative parenting practices, yet effect sizes were small ($d = 0.43$). Negative child rearing practices linked with dropout include hard and inconsistent punishment and poor monitoring and supervision (Fernandez & Eyberg, 2009; Kazdin, Holland, & Crowley, 1997; Kazdin et al., 1993, 1995; Kazdin & Mazurick, 1994), and are predictive of dropout when family and child risk factors are controlled for, including socio-economic status, parental stress, ethnic minority status, being from a single parent family, and child functioning (Kazdin & Mazurick, 1994; Kazdin et al., 1993). Mother's age and parenting practices have both been found to be significant predictors of dropout, both when dropout is defined according to therapist judgement and treatment duration. However, the majority of these studies were carried out with youth with conduct problems and include samples with children and adolescents, so it is unknown how these findings generalise to adolescents being treated for other difficulties.

One early study focused on primary caregivers' psychological factors as predictors of whether their child dropped out of treatment. The

primary caregivers of children ($N = 85$) who accessed treatment for a DSM-IV diagnosis in outpatient services, aged 3-18 years, took part in the study (Venable & Thompson, 1998). Personality factors of caregivers were associated with drop out, with high scores on intra punitive and extra punitive hostility being predictive of the child dropping out of treatment. Caregivers scoring highly for intra punitive hostility, characterised as being self-critical and experiencing delusional guilt, may find that their child receiving psychological treatment worsens their feelings of guilt and self-criticism. Extra punitive hostility is described as having an urge to act out and criticise others (Venable & Thompson, 1998). The authors speculated that these parental characteristics may increase the risk of parents withdrawing their child from treatment, to avoid the guilt associated with having a child in treatment or as a way of acting out against the service (Venable & Thompson, 1998). However, it is important to acknowledge the wide age range of participants in this study, and while this speculation may be relevant for young children where the decision to continue or stop treatment is likely to lie with the parent, with adolescents the agency to attend treatment is not solely with the parent. The effect of parental characteristics on child dropout may differ depending on the age of their child. Although this study had a relatively small sample, heterogeneous in terms of the presenting problems and treatment offered, it nevertheless provides support for a relationship between parental characteristics and dropout.

There is also evidence for the risk of a child or adolescent dropping out of treatment being linked with parental wellbeing. Children of parents with more externalising problems have been found to be at increased risk of dropping out of treatment (Kazdin, Holland, & Crowley, 1997; Kazdin et al., 1995; Kazdin & Wassell, 1998). Effect sizes are small (d = 0.39; de Haan et al., 2013). Again, these studies have focused on youth receiving treatment for conduct problems. The effect of parent internalising problems on dropout has been found to have smaller effect sizes (d = 0.19; de Haan et al., 2013).

These studies suggest that there may be parental characteristics associated with dropout. However, little research has been carried out

specifically with adolescents. In older adolescents, parents may have less of an active role in their child's treatment. It cannot be assumed that parental characteristics will have the same association with dropout in adolescents as with younger children.

2.3.4   Child factors associated with dropout

In addition to the studies looking at family and parental factors as predictors of dropout, many studies have investigated child characteristics as predictors of dropout from mental health treatment. Child characteristics include demographic factors, intelligence and presenting difficulties.

A general trend towards older adolescents being more likely to drop out of treatment than younger adolescents has been found in several studies (Baruch et al., 2009; Mendenhall, Fontanella, Hiance, & Frauenholtz, 2014; Pelkonen, Marttunen, Laippala, & Lönnqvist, 2000). However, a meta-analysis reported a very small effect size (d = 0.05) which was not statistically significant, regardless of how dropout was defined, drawing on data from a large sample of over 4000 respondents (de Haan et al., 2013).

de Haan et al. (2013) also investigated sex as a predictor of dropout. They found some evidence for males being at increased risk of dropout, when dropout was operationalised based on treatment duration, but not when defined according to therapist judgement. Overall, the evidence for the association between sex and dropout is mixed; numerous studies have not found an association between sex and dropout, in samples of young people with anxiety disorders (Gonzalez et al., 2011; Kendall & Sugarman, 1997; Pina et al., 2003), conduct disorder (Kazdin, 1990; Kazdin et al., 1993; Luk et al., 2001), as well as studies in general clinic samples which included young people with a range of diagnoses (Armbruster & Fallon, 1994; Dierker, Nargiso, Wiseman, & Hoff, 2001). Overall, the relationship between adolescent demographic factors and dropout appears to be weak, and are some of the poorest predictors of dropout compared with other child characteristics.

Three studies have investigated the association between intelligence and dropout, and in each study children with lower scores of intelligence were found to be at greater risk of dropping out of treatment (de Haan et al., 2013; Kazdin & Mazurick, 1994; Kazdin et al., 1993). The reported effect size was small (d = 0.36) but statistically significant (de Haan et al., 2013), when other risk factors were controlled for, including socio-economic status, being from a single parent family, parental stress, and severity of the child's antisocial behaviour (Kazdin & Mazurick, 1994; Kazdin et al., 1993). However, these studies were based on samples of youth with externalising problems, and it is unknown how these findings generalise to adolescents seeking treatment for other difficulties.

There is also evidence for presenting problems and their severity increasing the risk of treatment dropout. In de Haan et al.'s (2013) meta-analysis, higher number of diagnoses (d = 0.22), diagnosis of externalising disorder (d = 0.39) and more externalising problems (d = 0.36), were all found to increase the risk of dropout (de Haan et al., 2013). In conduct disordered youth, studies have consistently found that dropout can be predicted by severity of antisocial behaviour, academic and educational dysfunction, comorbid psychiatric diagnoses, level of impairment and contact with antisocial peers (Kazdin, 1990, 1996, Kazdin et al., 1993, 1994; Kazdin & Wassell, 1998; Lock et al., 2006; Luk et al., 2001). These predictors had an independent contribution in multivariate analyses when family factors were controlled for (Kazdin & Mazurick, 1994; Kazdin et al., 1993).

Some evidence for an effect of internalising problems on dropout has been found in samples of young people receiving treatment for anxiety disorders. One study, in a sample of anxious youth, found that those with higher symptoms of comorbid depression were at increased risk of dropout (Gonzalez et al., 2011). In this study, young people whose depression score (as measured by the Short Mood and Feelings Questionnaire; MFQ; Angold, Costello, Pickles, & Winder, 1987) was one standard deviation above the mean were 34% more likely to drop out of treatment compared with those whose MFQ score was at the mean. Similarly, in a sample of adolescents with all kinds of diagnoses, including

conduct disorder, higher severity of anxiety and depression significantly increased the odds of dropout (OR = 0.98; Baruch et al., 2009). Another study, in a sample of children and adolescents with anxiety disorders did not find a difference in severity of anxiety or depression, or comorbidity, between those who completed and dropped out of CBT, in the context of a clinical trial (Wergeland et al., 2015). However, this study defined dropout as failure to attend the full treatment protocol, an approach which has been advised against (Hatchett & Park, 2003), and the study also had a small number of dropouts ($N = 26$). Overall, there is some evidence that greater baseline symptom severity increases the odds of dropout, particularly greater levels of externalising problems. However, there have been some inconsistent findings and much less attention has been paid to symptom severity in samples of adolescents with internalising problems.

Taken together, the findings discussed above suggest that it is the young people presenting with more symptoms and greater symptom severity, and therefore those most in need of help, who are most at risk of dropping out. It is as yet unknown whether these findings apply to adolescents with depression.

2.3.5 Treatment modality associated with dropout

The studies described above focus on pre-treatment characteristics that predict dropout. However, there has been a growing interest in how in-treatment factors are related to dropout. There is particular interest in this avenue of research as effect sizes for pre-treatment predictors of dropout are generally small and moreover (de Haan et al., 2013), they are mostly characteristics that cannot be altered within therapy (Ormhaug & Jensen, 2016). In contrast, treatment factors have the capacity to be adapted; and therefore may have greater potential in improving client engagement in treatment. Despite this, the study of treatment factors has lagged behind the study of pre-treatment factors. The first treatment factor to be discussed in treatment modality.

Dropout has not been found to differ as a result of treatment modality in effectiveness studies, conducted in naturalistic settings. An

early study compared three treatment approaches (humanistic; psychoanalytic; family systems; Pekarik & Stephenson, 1988) and another compared supportive and interpretative approaches to therapy (Baruch et al., 2009). In both studies, no significant differences were found in dropout rates across treatment modalities. In contrast, efficacy studies have found differences in dropout rates between treatment arms. One trial in children with conduct disorder found that those randomised to receive CBT (dropout rate = 8%) were significantly less likely to drop out, compared with those who received family therapy (dropout rate = 56%) or an eclectic form of treatment (dropout rate = 40%; Luk et al., 2001). Another trial found children receiving treatment for trauma, three-months after treatment started, were more likely to have dropped out of the care as usual group (dropout rate = 90%), compared to those who received trauma systems therapy (dropout rate = 10%; Saxe, Heidi Ellis, Fogler, & Navalta, 2012). These efficacy studies, conducted in the context of clinical trials with strict protocols and specific clinical populations, provide evidence for differences in dropout rates across treatment modalities. However, this limited evidence comes from just two studies with small samples in young people receiving treatment for conduct problems and trauma. Treatment dropout rates are unreported in the majority of studies (Cooper et al., 2018) and it is as yet unknown which treatments have the highest dropout rates in the context of adolescent depression. The study of dropout rates for different treatments and disorders is potentially a productive line of enquiry, as it may help to inform us about the treatments that a specific client group are most likely to engage in, but to date, there is a paucity of research in this area.

2.3.6 Treatment factors associated with dropout

In-treatment factors include the therapeutic relationship between the child and/or family and therapist, treatment demands, the perceived relevance of the treatment and session attendance. It is plausible that the most important treatment factor is the relationship between a client and their therapist. This has been defined as the therapeutic alliance, a multidimensional construct that considers the agreement between the

client and therapist on the tasks and goals for treatment, in the context of an emotional bond (Bordin, 1979). The therapeutic alliance has long been considered to be central to therapeutic change, regardless of the type of treatment (Bordin, 1979). However, effect sizes are relatively modest, with alliance being estimated to account for 8% of the variance in outcomes in a meta-analysis of studies with adult clients (Flückiger, Del Re, Wampold, & Horvath, 2018).

A review suggests that adolescents may be particularly sensitive to the power imbalance with their therapist, and therefore therapists working with adolescents must be aware of the power dynamics in the therapeutic relationship (Block & Greeno, 2011). This makes it essential that therapists working with adolescents possess personal qualities such as openness, sensitivity and a non-judgemental stance (Block & Greeno, 2011), which seem imperative to engage young people in therapy.

At the time of de Haan et al.'s (2013) meta-analysis, only three studies had investigated youth-reported alliance with the therapist as a predictor of dropout. Poorer alliance was found to predict dropout, yet effect sizes were small (d = 0.41). However, only 161 cases were included in the analysis and these studies had all defined dropout based on treatment duration, an approach to defining dropout that has been heavily criticised (Hatchett & Park, 2003). The study of therapeutic alliance and dropout has also been hampered by inconsistency in how alliance was measured. There have also been some contradictory findings. One study did not find therapeutic alliance to predict dropout in a sample of young people receiving treatment for trauma (Ormhaug & Jensen, 2016). However, in this study, therapeutic alliance was measured in the first session. It is possible that the first session was too early to measure the therapeutic alliance as a predictor of dropout, and differences in the therapeutic alliance between dropouts and completers may have emerged in later sessions. Two other studies did not find adolescent-reported alliance to be predictive of dropout (Hawley & Weisz, 2005; Pereira, Lock, & Oggins, 2006). However, parent-reported alliance was found to predict dropout in these studies (Hawley & Weisz, 2005; Pereira et al., 2006). Interestingly, Hawley and Weisz (2005) found that

adolescent-reported alliance was related to decrease in symptom severity. Therefore, it is possible that parent-therapist alliance may be important for the child to continue in therapy, with parents often having an important role in facilitating their child's attendance in therapy. However, it may be the adolescents alliance with the therapist that relates to clinical outcomes; as it is likely to be important for the way they will participate in the sessions (Hawley & Weisz, 2005). Therefore parent and child alliance both appear important to engagement and outcomes, yet the mechanisms through which they affect the treatment may differ.

Another interesting study found that a reduction in adolescent-reported therapeutic alliance between sessions one and two was significantly related to dropout with very large effect sizes (d = 1.55; de Haan et al., 2013; Robbins et al., 2006). These effect sizes are much larger than when looking at alliance at a single point in time, and therefore *change* in alliance scores appears to be far better indicator of dropout. Similarly, one study found no difference in adolescent-reported alliance scores for dropouts and completers early in treatment, but a reduction in alliance scores was observed during treatment for adolescents who later dropped out of treatment (de Haan et al., 2014). Reduction in scores of alliance may represent a rupture in the therapeutic alliance, defined as deterioration in the therapeutic relationship (Safran & Muran, 1996). Indeed, unresolved ruptures in the therapeutic alliance have been found to predict dropout in adult clients receiving psychotherapy for personality disorders (Muran et al., 2009). Together, these findings suggest that the therapeutic alliance shows potential as a predictor of dropout. To date, there is a paucity of studies investigating the therapeutic alliance as a predictor of dropout in adolescents with depression.

Linked to therapeutic alliance, it has also been proposed that clients will prefer a therapist who is similar to them (Wintersteen et al., 2005). One study found that gender match between adolescents and their therapists facilitated alliance development. Adolescents who were gender matched to their therapists were more likely to complete two thirds of treatment for substance abuse, compared with adolescents who were not

gender matched to their therapist (Wintersteen et al., 2005). Wintersteen et al. (2005) also found that adolescents who were not racially matched with their therapists were less likely to remain in treatment (Wintersteen et al., 2005). A small effect size has been found for ethnic matching reducing the risk of dropout (d = 0.37; de Haan et al., 2013). Yeh and colleagues (1994) also investigated ethnic matching in relation to dropout. In their research, ethnic minority youths were less likely to return after their first session if they were not ethnically matched to their therapists, and this finding held across African-American, Mexican-American and Asian-American adolescents (Yeh, Eastman, & Cheung, 1994). This finding was not replicated in the children in their sample, suggesting that therapist matching may become more important in the later stages of the developmental trajectory. Matching therapists and caregivers ethnicity has also been found to be related to families spending longer in treatment and increased likelihood of being discharged after meeting goals for treatment (Halliday-Boykins, Schoenwald, & Letourneau, 2005). This provides empirical support that ethnic matching may improve treatment retention for adolescents, particularly among ethnic minority groups who are less likely to receive a therapist matched by ethnicity than ethnic majority youth.

Perhaps one of the biggest contributions to the study of treatment factors in relation to dropout is the Barriers to Treatment Participation Scale (BTPS); a self-report measure of barriers that families may experience when attending treatment (Kazdin, Holland, Crowley, et al., 1997). The measure consists of four subscales (relationship with therapist; stressors and obstacles; treatment demands and issues; perceived relevance of treatment) and is completed by the parent and/or therapist. The 'relationship with therapist' subscale on the BTPS is a measure of the therapeutic alliance, which has already been discussed. Stressors and obstacles are factors that compete with treatment and as measured by the BTPS have been found to predict therapy dropout (Kazdin, Holland, & Crowley, 1997; Kazdin & Wassell, 1998; Prinz & Miller, 1994), with medium (parent report; d = 0.70) to large effect sizes (therapist report; d = 1.24; de Haan et al., 2013). Treatment demands and

issues refer to complaints or concerns about treatment, such as finding treatment confusing, too long or costly (Kazdin, Holland, Crowley, et al., 1997). More treatment demands are significant predictors of dropout (Kazdin, Holland, & Crowley, 1997; Kazdin & Wassell, 1998). Again, effect sizes are greater for therapist-reported treatment demands (d = 0.58), compared with parent-reported treatment demands (d = 0.14; de Haan et al., 2013). Lower perceived relevance of treatment is the strongest predictor of dropout from the BTPS, as families have been found to be more likely to drop out of treatment if they do not perceive the treatment as relevant for their child's problems (Kazdin, Holland, & Crowley, 1997; Kazdin & Wassell, 1998; McCabe, 2002; Prinz & Miller, 1994; Stevens, Kelleher, Ward-Estes, & Hayes, 2006), and effect sizes are large when barriers in treatment were reported by the parent (d = 0.81) and by the therapist (d = 1.18; de Haan et al., 2013). Multivariate analyses showed that these findings hold when child and family factors were controlled for, suggesting that barriers to treatment have an independent contribution to the prediction of dropout (Kazdin, Holland, & Crowley, 1997; McCabe, 2002).

All of these studies have been in the context of child conduct problems, but a study of CBT for children with anxiety disorders also found that children and parents who did not perceive the treatment as credible for their problems were more likely to drop out (Wergeland et al., 2015). Similarly, Luk et al. (2001) found parents whose children dropped out of treatment perceived the therapist as less caring, having poorer communication skills and perceived the treatment as less organised, whereas there was no significant difference between children's satisfaction with treatment when comparing those who completed and dropped out of treatment (Luk et al., 2001).

Taken together, research has consistently found barriers in attending treatment to predict dropout, when reported by the therapist and parent (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997; Kazdin & Wassell, 1998; McCabe, 2002; Prinz & Miller, 1994; Stevens et al., 2006). These findings offer strong support for the barriers to treatment model proposed by Kazdin and colleagues (Kazdin, Holland,

Crowley, et al., 1997), suggesting that the barriers in attending treatment are central to whether or not children will complete treatment. It is noteworthy that therapist-report of barriers to treatment appears to be a stronger predictor of dropout than parent-report, as reflected by greater effect sizes in de Haan et al.'s (2013) meta-analysis. This is a promising finding, as it suggests that therapists may be in tune with the barriers that place families at risk of dropout. This presents an opportunity for interventions to be implemented to reduce the risk of dropout, which can be targeted at those who experience multiple barriers in attending treatment, as identified by their therapists. There is a dearth of knowledge about adolescents' perspectives on the barriers to attending treatment, as studies have focused on parent and therapist reported barriers to treatment, often with younger children. The direct perspectives of adolescents about what they perceive as the barriers to attending treatment are needed, as their priorities and concerns may well differ from those of their parents and therapists.

Another treatment factor that has been found to be associated with dropout is missed sessions, with more cancelled or missed sessions being found to be a strong predictor of dropout (d = 1.25; de Haan et al., 2013). However, it is important to acknowledge that non-attendance and dropout are likely to be the result of similar causes. Thus, while cancelled and missed sessions may be seen as signs of disengagement from treatment, they are conceptually similar.

Taken together, the existing literature on treatment factors provides evidence that there are warning signs in treatment that a young person might drop out. While this area of research is in its infancy compared with the literature on pre-treatment predictors of dropout, it overall appears to be a productive line of enquiry, with treatment factors tending to yield higher effect sizes compared with pre-treatment factors when tested as predictors of dropout (de Haan et al., 2013).

2.3.7 Clinical change and dropout

While baseline severity of illness has frequently been tested as a predictor of dropout, as described in section 2.3.4, these studies have

been criticised as symptom severity is not static; it is likely to be continuously changing throughout the course of treatment (Chasson et al., 2008). Clinical change may well predict dropout. On the one hand, clinical gains during treatment may be associated with clients not perceiving a need for continued treatment, and therefore may be associated with dropout, although no known evidence is available to support this speculation. On the other hand, lack of clinical change may be associated with dropout due to clients perceiving that treatment is not helping. Chasson et al. (2008) tested symptom severity measured just before the end of treatment as a predictor of dropout, in a sample if 99 children and adolescents receiving trauma-focused CBT, of whom 41% dropped out of treatment. The authors found that a model with pre-treatment severity indices was not significantly predictive of dropout, whereas the model with severity indices in the session prior to dropout was significantly predictive of dropout. The model accounted for 12% of the variance, with dropouts having greater symptom severity prior to dropout compared with those who continued in treatment (Chasson et al., 2008).

Similarly, a study of family-based psychosocial treatment for paediatric bipolar disorder found that children whose depression symptoms worsened during treatment were at increased risk of dropping out (Isaia, Weinstein, Shankman, & West, 2018). Possible explanations for these findings are that the child and/or parent may not be perceiving the therapy as helpful, may perceive the need for a different type of treatment, or they may even consider the treatment to be contributing to the child's worsening symptoms (Isaia et al., 2018). While few studies have investigated how clinical change is associated with dropout, the limited available evidence suggests that dropout may be associated with lack of clinical change or even deteriorating during treatment (Chasson et al., 2008; Isaia et al., 2018).

2.4   Clinical outcomes associated with dropout

While a vast body of literature has sought to investigate predictors of dropout, much less attention has been paid to the implications of dropout.

As research evidence demonstrates the effectiveness of psychological treatment (Weisz et al., 2017), it is often assumed that dropping out of treatment will lead to poorer clinical outcomes than if treatment is completed (Kazdin et al., 1994). Surprisingly little research has empirically tested this assumption. When considering the relationship between dropout and outcomes, it must be acknowledged that studies investigating the relationship between dropout and outcomes cannot tell us whether dropping out was causally associated with outcomes.

In children and adolescents, some studies in the treatment of conduct problems have found that children who drop out of treatment have poorer clinical outcomes compared with those who completed treatment (Boggs et al., 2005; Kazdin & Wassell, 1998; Lai, Chan, Pang, & Wong, 1997). However, Kazdin and colleagues (1994) found that the difference in outcomes between dropouts and completers was no longer significant when differences between dropouts and completers were controlled for, suggesting that the poorer outcomes for dropouts may in part be due to pre-treatment differences (Kazdin et al., 1994). One of the major limitations of these studies has been the lack of long-term follow-up, so while there is some evidence for poorer outcomes of dropouts in the short term, little is known about how they fare in the longer term. The only study to investigate longer-term outcomes of dropouts did find poorer outcomes approximately two years after treatment (Boggs et al., 2005). In this study, at the long-term follow up, 34% of completers still met diagnostic criteria for a disruptive behaviour disorder, compared with 78% of dropouts. Overall, relatively little change was observed for dropouts. However, this study had several important limitations, as the sample size was small ($N = 46$) and differences between completers and dropouts were not controlled for. While there is a dearth of studies investigating outcomes associated with dropout in adolescents receiving therapy for depression, studies with adult clients receiving therapy in the UK have found dropouts to have poorer outcomes by the end of treatment, but these studies did not include a long-term follow up (Cahill et al., 2003; Saatsi, Hardy, & Cahill, 2007; Saxon, Firth, & Barkham, 2017).

Overall, there is some limited evidence for dropout being associated with poorer clinical outcomes, which may be maintained in the long-term. However, this is an area of paucity in the literature, with no known study investigating outcomes associated with dropout in young people with depression and there is a dearth of high quality studies investigating the longer-term implications of dropout.

2.5   Reasons for ending treatment and experiences of treatment

Over recent years, there has been growing recognition of the value of client views about treatment (Gibson, Cartwright, Kerrisk, Campbell, & Seymour, 2016). One study sought to investigate the reasons clients gave for ending treatment, in a sample of adults and parents of children who had stopped treatment. Three main reasons for stopping treatment were found: their problems had improved, there were practical difficulties that prevented them from continuing treatment, or they were dissatisfied with the treatment they received (Pekarik, 1992). Other studies have explored young people's experiences of therapy, which can help to elucidate aspects of psychological treatment that may be less acceptable to young people. Studies have tended to focus on the positive aspects of therapy with young people. For instance, young people when asked about their experiences of therapy have reported the need for a warm, engaged and supportive therapist, in adolescents who received a range of types of therapy, including psychoanalytic psychotherapy, cognitive behavioural therapy and counselling (Bury, Raval, & Lyon, 2007; Donnellan et al., 2013; Gibson et al., 2016; Jones, Hassett, & Sclare, 2017; Lavik, Veseth, Frøysa, Binder, & Moltu, 2018).

However, qualitative studies have also reported issues in the relationship with the therapist from the perspective of adolescents, including not feeling cared about (Lavik et al., 2018), their therapist treating them like a child (Jones et al., 2017), as well as issues to do with the power dynamics between the adolescent and therapist (Bury et al., 2007; Gibson & Cartwright, 2013; Gibson et al., 2016; Jones et al., 2017). For instance, Bury and colleagues (2007) carried out semi-structured interviews with 36 young people about their experiences of

psychoanalytic psychotherapy and found that they often reported feeling unable to question aspects of the treatment. Similarly, a study with adolescents who attended school counselling by Gibson and Cartwright (2013) found that adolescents were cautious in expressing issues with treatment to their counsellor. Adolescents reported that they would tend to address their concerns passively, such as by changing counsellor, rather than directly voicing their dissatisfaction to their counsellor (Gibson & Cartwright, 2013). Other issues raised by adolescents in qualitative studies about their experiences of therapy include finding it emotionally exhausting (Bury et al., 2007), having issues with the structure, pace or format (Donnellan et al., 2013), and concerns about confidentiality, such as a wish for their parents not to be involved in treatment (Gibson et al., 2016).

Jones and colleagues (2017) explored threats to engagement in adolescents who received therapy in a CAMHS clinic in the UK. They found threats to engagement from the perspectives of young people included practicalities, such as remembering the time of their appointment, symptoms that impacted on their ability to attend sessions, as well as disappointment with the service. This study provides an insight into potential barriers to engaging in treatment from the perspectives of young people. Similarly, one study investigated the barriers and facilitators to treatment participation from the perspectives of adolescents and their caregivers (Oruche, Downs, Holloway, Draucker, & Aalsma, 2014). The authors conducted qualitative interviews with twelve adolescents and their caregivers who had received treatment from a community mental health service, half of whom had dropped out of therapy. The authors found that facilitators to treatment included caregiver involvement in treatment and positive qualities of staff, and adolescents spoke about how getting on with their therapist made them willing to attend and participate in sessions. On the contrary, a main barrier to treatment participation for adolescents and their caregivers was negative interactions with staff, which they reported making them less willing to participate in treatment and led them to lose confidence that the treatment could help. Additional barriers included organisational

obstacles such as long waiting lists for treatment and staff turnover, and family difficulties with keeping track of appointments and arranging transportation to sessions (Oruche et al., 2014).

However, the samples of the studies described have mostly been in samples of adolescents who completed treatment. Adolescents were often referred to these study by their therapists, or had volunteered to participate in a study about their experiences of treatment. These sampling strategies could potentially have resulted in an over representation of young people who had more positive experiences of treatment. It has been acknowledged in the literature that there is a need for more research from the perspective of adolescents who have had more negative experiences of treatment (Gibson & Cartwright, 2013).

A more recent study in New Zealand sought to explore the experience of 63 young people who received a range of different types of psychological support, including face-to-face counselling, phone counselling and counselling by text message (Gibson et al., 2016). An interesting finding was the emphasis adolescents placed on the need for flexible treatment that could fit around their lives and needs. Some young people expressed issues with structured treatment where they were offered a regular appointment time, whereas 'on demand' support services (e.g. phone and text counselling) seemed to fit better into the lives of some young people (p.1063). The authors found that some young people spoke about having disengaged from services, not always because of dissatisfaction with treatment, but rather due to 'waxing and waning' of their need for support (p.1063). The authors described this as a 'drop in drop out' model of how some adolescents used support, suggesting that dropping out may not necessarily be a negative treatment ending (Gibson et al., 2016).

While no known study has specifically investigated adolescents' reasons for stopping treatment, one study investigated the reasons for ending treatment from the perspective of parents of 7-18 year olds who had received outpatient treatment (Garcia & Weisz, 2002). They found that problems in the therapeutic relationship and money issues distinguished the reasons for stopping therapy for those families who

dropped out of treatment from those who completed treatment. Problems in the therapeutic relationship reported by parents included concerns that the therapist wasn't doing the right things or focusing on the right problems, the therapist did not adequately explain the treatment or the child did not like the therapist (Garcia & Weisz, 2002). Similarly, another study asked the parents of children receiving therapy for anxiety for the reasons their child decided to stop therapy, using a 'Follow-Up Termination Questionnaire'. The most common reasons for stopping therapy for the 25 parents who completed the questionnaire were "help no longer necessary" and "my child did not like the clinic and did not want to go there" (Kendall & Sugarman, 1997).

These studies highlight a range of aspects of adolescents' experiences of therapy that may contribute to their decisions to stop treatment. However, there is a paucity of research directly with adolescents about their reasons for stopping treatment. Due to this paucity, studies with adult clients about their reasons for stopping treatment will be discussed.

Studies exploring adult clients' reasons for dropping out of treatment include dissatisfaction with the therapy, such as feeling that strategies or advice did not meet their needs, as well as dissatisfaction with the therapist, such as reporting a lack of rapport, lack of trust or that the fit between them and the therapist wasn't right (Khazaie, Rezaie, Shahdipour, & Weaver, 2016; Roe, Dekel, Harel, & Fennig, 2006; Wilson & Sperlinger, 2004). In studies conducted with clients attending self-paid psychotherapy, financial constraints have also been cited as reasons for stopping treatment (Khazaie et al., 2016; Roe et al., 2006). In the context of long-term psychotherapy, the duration and issues with fitting treatment around other commitments have also been reported as reasons for stopping treatment (Khazaie et al., 2016). One study also reported that clients stopped treatment due to it giving rise to painful feelings or not feeling ready to engage in treatment (Wilson & Sperlinger, 2004). However, positive reasons for stopping treatment have also been cited, with one study of 84 clients finding that almost half reported having stopped treatment having made sufficient progress with the problems that

led them to seek treatment (Roe et al., 2006). These studies have mostly been conducted in small samples, often with a substantial delay between the client stopping treatment before they were interviewed about their reasons for discontinuing treatment, which may have resulted in issues recalling the reasons for stopping treatment. Nevertheless, these studies provide an indication of some of the reasons that adults have reported for stopping treatment without the agreement of their therapist. It is unknown how these findings may apply to samples of young people with depression.

In addition to the dearth of research investigating the reasons for dropout from the adolescent perspective, little is known about therapists' understandings as to why their adolescent clients drop out of therapy. One study utilised focus groups with clinicians, the majority of whom were social workers, working with young people and families in outpatient mental health care, to identify what clinicians perceived as the barriers and promoters in families' session attendance and participation in treatment (Gearing, Schwalbe, & Short, 2012). Interestingly, clinicians generally attributed the promoters to families' treatment participation within themselves, such as through their efforts to develop a strong therapeutic alliance and the therapeutic processes and activities they used. They attributed the barriers to treatment participation with the families, such as lack of motivation to change or life circumstances interfering with treatment (Gearing et al., 2012). This study gives an insight into the barriers and facilitators to treatment engagement from the perspective of professionals working with adolescents in mental health care, but no known study has investigated how therapists understand dropout in relation to their adolescent clients. Research is needed to explore from both the adolescent and therapist perspective the reasons as to why dropout occurs.

2.6   Methodological issues in the dropout literature

In the dropout literature, many studies have utilised clinic populations, which include cases with a range of diagnoses (Baruch et al., 2009; Chung, Pardeck, & Murphy, 1995; de Haan et al., 2014; French,

Reardon, & Smith, 2003; Gaines & Stedman, 1981; Gearing et al., 2012; Hawley & Weisz, 2005; Midgley & Navridi, 2007; Pekarik & Stephenson, 1988; Plunkett, 1984; Venable & Thompson, 1998; Warnick et al., 2012; Weisz, Weiss, & Langmeyer, 1987). This is problematic as it makes the assumption that the relationship between predictors and the probability of dropout does not vary between populations of children with different presenting diagnoses (Kendall & Sugarman, 1997), which may not be the case. It is quite possible that patterns of dropout will differ among clinical populations, and as noted by Kazdin et al. (1993), patterns of dropout may have been obscured in research by the heterogeneity of samples. This claim is supported by Johnson et al.'s (2009) file audit of 520 intakes from a CAMHS in Australia, which found that no risk factor was related to dropout across all cases, but there were factors associated with dropout in specific diagnostic groups. Although this study was too small to provide reliable evidence for any given diagnostic group, it nevertheless provides some indication that the heterogeneity of samples may limit the identification of reliable predictors of dropout. A more productive way to study dropout may be to focus on dropout in specific clinical populations. The most consistent findings have occurred where a homogenous clinical group has been the focus of the research, such as the research programme by Kazdin and colleagues on children with conduct problems (Armbruster & Kazdin, 1994; Kazdin, 1990, 1996; Kazdin, Holland, Crowley, et al., 1997; Kazdin & Mazurick, 1994; Kazdin et al., 1993, 1994, 1995, Kazdin & Wassell, 1998, 2000; Nock & Kazdin, 2001). We cannot assume that these findings are generalisable to other clinical populations and there remains little research focussing on dropout specifically in young people with internalising disorders. There have been a few studies exploring dropout in anxiety disorders in children and adolescents (Pina et al., 2003; Wergeland et al., 2015), but no known studies have focussed specifically on depression, in children or adolescents. This is an important area for research, given that depression is one of the most commonly occurring disorders in adolescents (Essau, 2005).

Dropout may also be related to treatment specific factors, as the acceptability of a treatment may differ across disorders. To take the

example of trauma-focussed CBT, Chasson et al. (2008) suggested that the exposure element of the treatment protocol, where the child experiences prolonged and systematic contact with anxiety-inducing stimuli, may be less tolerable for them than other aspects of the treatment protocol. The exposure may be an unpleasant experience and therefore risk of dropout may be elevated when working through this element of treatment. The context of the disorder and treatment factors cannot be ignored. There is a need to identify the specific risk factors associated with dropout across different diagnoses, populations and treatment modalities (Johnson et al., 2008).

Another key limitation in the literature is that studies have typically only studied 'variables of convenience' (Deakin, Gastaud, & Nunes, 2012), such as demographic details that are typically on the intake forms in clinics. Studies have had correlational designs which illustrate where there are relationships between risk factors for dropout. While these studies have helped to illuminate some of the risk factors of dropout, there is a limit to what these studies can tell us: they do not tell us why these risk factors impact on dropout, or how they have their effect. We need to go beyond looking at risk factors, to understand how risk factors interact with treatment factors, and this requires a multi-method approach to explore dropout both from a risk factor and treatment perspective, looking both at what the adolescent brings to treatment and what happens in the interaction between the therapist and adolescent that influences whether or not therapy will be completed.

Finally, perhaps the most significant methodological issue in the study of dropout is the inconsistent way in which dropout has been operationally defined in the existing dropout literature. There are major issues with several of the definitions used in the literature, as discussed in Chapter 1. The different definitions of dropout are potentially measuring different concepts. While the most well accepted definition in the contemporary dropout literature is based on therapist judgement that the ending was without their prior agreement, an exploration into the meaning of dropout will be included as part of this thesis in order to try to establish

a clearer understanding of what it means when an adolescent stops going to therapy.

2.7 Conclusion

This chapter began by reviewing the literature pertaining to predictors of dropout in children and adolescents receiving treatment for mental health problems. In summary, there is support for Kazdin's risk factor model (Kazdin, 1996), which seeks to identify those most vulnerable in their risk of dropping out of treatment, and this model can also help us to understand some of the potential causes of dropout. This model has been supported across a range of clinical populations, and overall, it appears to be the most burdened and troubled young people who are most likely to drop out of treatment (de Haan et al., 2013). However, as noted by Ormhaug and Jensen (2016), pre-treatment treatment characteristics have been insufficient in reliably predicting dropout and effect sizes are generally small (de Haan et al., 2013). This has resulted in growing interest in treatment factors as predictors of dropout, such as the therapeutic alliance. However, it is unknown how these findings apply to a sample of adolescents with depression, as this is an area that has been neglected in the literature. This thesis will begin by testing how existing findings apply to a sample of adolescents with depression. Methodological issues regarding dropout were also discussed in this chapter, including inconsistencies in the way in which dropout has been defined; an issue that will be addressed later in this thesis.

3   The research design of this thesis

3.1   Introduction

This chapter will outline the research design of this thesis. The overall aim of this thesis is to explore the phenomenon of therapy dropout in the context of adolescent depression. To address this aim, this thesis draws on data from the "Improving Mood with Psychoanalytic and Cognitive Therapies" study (IMPACT; Goodyer et al., 2011, 2017a, 2017b) and the "IMPACT-My Experience" study (IMPACT-ME; Midgley et al., 2014). In this chapter, the IMPACT and IMPACT-ME studies will be described in detail. Following this, the design of the research in this thesis, the rationale for using a mixed methods approach and the epistemological position underpinning this research will be discussed.

3.2   Context for the research in this thesis

3.2.1   The IMPACT Study

The IMPACT study (Goodyer et al., 2017a, 2017b, 2011) was a multisite RCT comparing three interventions in the treatment of moderate to severe depression in adolescents. In the IMPACT trial, adolescents (aged between 11 and 17 years) with a diagnosis of moderate to severe major depression were randomised to receive one of three treatment interventions for depression: Brief Psychosocial Intervention (BPI), Cognitive Behavioural Therapy (CBT), or Short Term Psychoanalytic Psychotherapy (STPP). The trial was conducted across three regions in England: East Anglia, North London and the North West. The primary aim of the IMPACT trial was to compare the clinical and cost effectiveness of these three treatments for adolescent depression, in the medium to long-term.

3.2.1.1   Treatment

Participants were randomly allocated to receive one of three interventions. In each treatment arm, antidepressant medication was prescribed when deemed clinically appropriate, in accordance with NICE

guidelines (NICE, 2005, 2015). The interventions were manualised and delivered in the usual clinical services by staff with training in one of the three modalities. Therapists received supervision as per routine practice in CAMHS. The three treatment arms were:

i. *Brief Psychosocial Intervention (BPI)*. BPI was a psychosocial management programme, consisting of up to 12 sessions delivered over a maximum of 20 weeks. Up to eight of the sessions were delivered individually to the adolescent, with an additional four parent/family sessions. This intervention emphasised the importance of action-orientated, goal-focused and interpersonal activities. This may have included advice on personal activities, social behaviour, schoolwork, and mental and physical hygiene. Psycho-education relating to depression was also included (Kelvin, Dubicka, Wilkinson, & Goodyer, 2010).

ii. *Cognitive Behavioural Therapy (CBT)*. CBT was an active therapy, based on individual formulation of the adolescents' current problems and their precipitating and maintaining factors. Sessions focused on working on explicit, tangible and shared goals. Phases of CBT included assessment, psycho-education, monitoring, behavioural activation and activity scheduling, linking thoughts, feelings and behaviours, identifying and challenging negative automatic thoughts, developing and reinforcing adaptive thoughts and relapse prevention strategies. CBT consisted of up to 20 sessions, typically consisting of 12 weekly sessions, followed by 8 biweekly sessions. Sessions could be delivered alone with the adolescent, or with both the adolescent and their parent (IMPACT Study CBT Sub-Group, 2010).

iii. *Short Term Psychoanalytic Psychotherapy (STPP)*. STPP used supportive and expressive strategies, and placed an important role on the interpretation of unconscious conflict. Drawing on attachment theory and the concepts of internal working models, it aimed to elaborate and increase the coherence of the adolescents' maladaptive mental models of attachment relationships and capacity of affect regulation. STPP was delivered over 28 weekly

sessions to the adolescent, and their parents were also offered individual parent work sessions with a different clinician, delivered over seven sessions (Cregeen, Hughes, Midgley, Rhode, & Rustin, 2016).

The three treatments were demonstrated to be delivered with fidelity to their respective modalities, and there was clear differentiation between the techniques used by therapists in the three treatment arms, based on blind independent ratings of therapy session audio recordings (Goodyer et al., 2017a, 2017b; Midgley et al., 2018).

3.2.1.2 Sample for the IMPACT study

Recruitment to the IMPACT trial took place between June 2010 and January 2013, across 15 CAMHS clinics. Adolescents referred to one of the CAMHS sites were screened by clinicians for suitability for the trial. If suitable, clinicians referred them to the research team, with the verbal consent of the adolescent and parent (where applicable). The research team then contacted the adolescent and/or parent by telephone, to give them full details of the trial. If the adolescent and parent (where applicable) agreed to participate, they arranged a baseline assessment to assess their eligibility for the trial.

Assessments were conducted at a place convenient for the participants (either in their home or at the referring CAMHS), and young people and their parents were assessed concurrently, in separate rooms. The baseline assessment consisted of a battery of interviews and questionnaires (see Appendix 1 for the running order of measures in the assessments). During this initial meeting, the Research Assistants assessed the adolescents' eligibility for the trial. Inclusion criteria were that adolescents were aged 11-17 years old, and met DSM-IV criteria for moderate to severe depression (American Psychiatric Association, 2000), as measured by the K-SADS (Kaufman et al., 1997). Exclusion criteria were generalised learning difficulties, pervasive developmental disorder, pregnancy, and a primary diagnosis of an eating disorder, bipolar I disorder, or schizophrenia. No other exclusion criteria were used to ensure

the sample was as representative as possible of the cases seen within CAMHS.

Once adolescents' eligibility for the trial was confirmed and they had consented to participate, they were randomised to one of the three treatment arms. Randomisations were stratified by age, sex, region and MFQ score, using an online randomisation system. The Trial Coordinator was responsible for randomising participants, to ensure that the Research Assistants were blind to the treatment allocation. The Trial Coordinator notified the adolescent (or parent) and the referring CAMHS team of the randomisation outcome. The CAMHS team were then responsible for allocating a therapist to deliver the therapy.

The Research Assistants who conducted the outcome assessments were blind to the treatment allocation of participants, to minimise the risk of bias in the outcome assessments. The Research Assistants did not liaise directly with the participants' therapists to reduce the risk of un-blinding, and if blindness were broken, another member of the research team conducted subsequent assessments with that adolescent.

In total, 561 potential participants were assessed for the trial, and of those, 470 were eligible and randomised into the trial. Five participants later withdrew consent, so their data was destroyed and excluded from data analysis. The final IMPACT sample consisted of 465 adolescents with a diagnosis of moderate to severe major depression (117 male; 348 female), who were allocated to a treatment arm (BPI = 155; CBT = 154; STPP = 156)

3.2.1.3 Data collection

As described above, baseline assessments were conducted to assess eligibility for the trial, and participants who were randomised into the trial took part in follow-up outcome assessments. Outcome assessments took place at 6, 12, 36, 52 and 86 weeks after participants' first treatment date. Where possible, adolescents were assessed at each time point. Parents also took part when the adolescent was under the age of 16 years old. For those over the age of 16, the parent was given the choice whether to participate in the research assessments. Assessments took place at a

time and place convenient for participants. The intent-to-treat design meant that participants were followed up regardless of whether or not they attended treatment. The following measures were used at each time point, unless otherwise specified, and these data have been used for the research in this thesis:

3.2.1.3.1 Primary outcome measure

i.   *Depression severity.* The Mood and Feelings Questionnaire (MFQ; Angold, Costello, Pickles, & Winder, 1987) is a 33-item self-report measure of depressive symptoms. The MFQ consists of a series of descriptive phrases regarding how the participant has been feeling or behaving over the past two-week period. Total scores range from 0 to 66, with higher scores reflecting higher depression severity. The clinical cut-off for the presence of a major depressive episode is 27 (Wood, Kroll, Moore, & Harrington, 1995). The MFQ has been demonstrated to show good test–retest reliability over a two- to three-week period ($r = 0.78$), good internal consistency (Cronbach's α = 0.82), discriminant validity for detecting an episode of depression in adolescents (Kent, Vostanis, & Feehan, 1997; Wood, Kroll, Moore, & Harrington, 1995), and construct validity, as the MFQ is highly correlated with the Children's Depression Inventory ($r = 0.75$; Sund, Larsson, & Wichstrøm, 2001).

3.2.1.3.2 Secondary outcome measures

i.   *Diagnosis of major depressive disorder and comorbid disorders.* The Kiddie–Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997) is a semi-structured diagnostic interview, which assesses the presence of major depressive disorder and comorbid disorders. The Research Assistant rates each symptom on a three-point scale (1 = non-clinical; 2 = sub-threshold; 3 = clinically relevant symptom), and these ratings are used to assess the presence of major depressive disorder and a

range of comorbid disorders. The K-SADS is the most frequently used diagnostic interview for adolescents and has excellent test–retest reliability over an 18-day period for depressive, anxiety, bipolar, and conduct disorders (Kappa coefficients for the various diagnoses range between 0.77 and 1.00), and it demonstrates good convergent and divergent validity against standard self-report measures (Kaufman et al., 1997). Good internal consistency of the scales on the K-SADS has been reported (Cronbach's α = 0.71 or above; Ambrosini, Metz, Prabucki, & Lee, 1989).

ii. *Overall symptoms and psychosocial functioning.* The Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA; Garralda, 2000) interview assesses a range of areas relevant to the quality of the child and family's life, including psychiatric symptoms, peer relationships, family functioning and school functioning. The measure comprises 13 items, and the Research Assistant rates impairment on each on a scale of 0 to 4. The total score ranges from 0 to 52, with higher scores reflecting more severe impairment. The HoNOSCA has been shown to be sensitive to change and is moderately correlated against other clinician-rated outcome measures (r = 0.60 or above), demonstrating its concurrent validity (Pirkis et al., 2005). The HoNOSCA has been demonstrated to have fairly poor internal consistency (Cronbach's α = 0.45; Harnett, Loxton, Sadler, Hides, & Baldwin, 2005), but this is unsurprising as the measure covers a number of independent psychosocial and psychiatric domains.

iii. *Anxiety severity.* The Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) is a 28-item self-report measure of anxiety symptoms in children. Participants rate their symptoms over the past two-week period. Total scores range from 0 to 56, with higher scores reflecting higher severity of anxiety symptoms. The RCMAS has been shown to have construct validity as the measure is highly correlated with the trait scale on the State-Trait Anxiety Inventory for Children (r = 0.85; Reynolds, 1980) and several studies have demonstrated good internal

consistency (Cronbach's α = 0.80 or above; Gerard & Reynolds, 1999).

iv. *Obsessionality.* The Short Leyton Obsessional Inventory (LOI; Bamber, Tamplin, Park, Kyte, & Goodyer, 2002) is a self-report, 11-item screen for current symptoms of obsessive-compulsive disorder (OCD) in children and adolescents. Total scores range from 0 to 22, with higher scores reflecting more symptoms of OCD. The LOI has been demonstrated to have high internal consistency (Cronbach's α = 0.86) and discriminates clients with and without obsessive-compulsive disorder (Bamber, Tamplin, Park, Kyte, & Goodyer, 2002).

v. *Antisocial behaviour.* The Antisocial Behaviours Questionnaire (ABQ; Goodyer et al., 2017) is a self-report, 11-item checklist for symptoms of antisocial behaviour, based on the DSM-IV (APA, 1994) criteria for conduct disorder. Scores range from 0 to 22, with higher scores reflecting more severe antisocial behaviours. The ABQ has been validated as a measure for identifying antisocial behaviour in adolescents (St Clair et al., 2017) and has good internal consistency (Cronbach's α = 0.78; Cousins et al., 2016).

3.2.1.3.3 Measures used as predictors of dropout

i. *Demographics.* Adolescents and/or their parents completed a demographic questionnaire, which included key demographic details including ethnicity. There were separate versions for adolescents (Appendix 2) and parents (Appendix 3). This was completed once, usually at the baseline assessment, or otherwise at a later assessment.

ii. *Risk taking and self-harm.* The Risk-Taking and Self-Harming Inventory for Adolescents (RTSHIA; Vrouva, Fonagy, Fearon, & Roussow, 2010) is a self-report questionnaire to assess self-harm and risk taking behaviour. Items refer to life-long history of self-harm and risk taking. Total scores range from 0 to 21 for risk taking, and 0 to 54 for self-harm, with higher scores indicating higher levels of risk taking and self-harm. The RTSHIA has been

shown to have high internal consistency and high test–retest reliability over a three-month period on both the risk taking (Cronbach's α = 0.85; r = 0.90) and self-harm scales (Cronbach's α = 0.93; r = 0.87). Adequate evidence for the convergent, concurrent, and divergent validity of the measure has also been demonstrated (Vrouva, Fonagy, Fearon, & Roussow, 2010).

iii. *Verbal Intelligence.* The Wechsler Abbreviated Scale of Intelligence was administered as a test of intelligence (WASI; Wechsler, 1999). The Vocabulary and Similarities subtests were used, which yield a score of verbal intelligence. The Vocabulary subtest required the participant to name pictures and define words that were visually displayed by the Research Assistant, to measure their expressive vocabulary and verbal knowledge. In the Similarities subtest, the participant was asked to match pictures that were similar or state how two common objects or concepts were alike, to measure verbal concept formation, abstract verbal reasoning ability and general intellectual ability. The WASI has been demonstrated to have excellent internal consistency (r = 0.94; Kranzler & Floyd, 2013) and construct validity has been demonstrated through a high correlation with the Wide Range Intelligence Test (r = 0.83; Canivez, Konold, Collins, & Wilson, 2009). The WASI was completed at the 52-week assessment only.

iv. *Parenting styles.* The Alabama Parenting Questionnaire – Short Form (APQ-SF) is a 9-item measure of parenting style (Elgar, Waschbusch, Dadds, & Sigvaldason, 2007). Items load onto three subscales of parenting styles: positive parenting, inconsistent discipline and poor supervision. Scores range from 1 to 15 for each of the three subscales, with higher scores on the positive parenting subscale reflecting more positive parenting practices, and higher scores on the other two subscales reflecting more inconsistent discipline and poorer supervision. The authors demonstrated the measure to have good convergent validity as the measure differentiated parents of children with and without disruptive behavioural disorders (Elgar, Waschbusch, Dadds, &

Sigvaldason, 2007). Moderate internal consistency of the measure has been reported (Cronbach's α = 0.58–0.77; Elgar et al., 2007).

v.   *Parental mental health.* The Symptoms Checklist-90 (SCL-90; Derogatis & Unger, 2010) was completed by parents, to report on their own mental health. It measures symptom intensity on nine symptom dimensions (somatisation, obsessive compulsive, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism). The instrument's three global indices of distress are: Global Severity Index (GSI), Positive Symptom Distress Index (PSDI) and Positive Symptom Total (PST). The GSI was used in this study as a measure of parental mental health, as this is considered to be the most sensitive quantitative measure of psychological distress, which takes the mean value of all 90 items. The GSI has been demonstrated to have excellent internal consistency (Cronbach's α = 0.97; Prinz et al., 2013).

vi.   *Therapeutic alliance.* The short version of the Working Alliance Inventory (WAI; Tracey & Kokotovic, 1989) was completed by adolescents at their six and 12-week assessments. Scores range from 12-84, with higher scores reflecting better therapeutic alliance. The WAI has been demonstrated to have construct validity (Tracey & Kokotovic, 1989) and internal consistency (Cronbach's α = 0.93; Horvath & Greenberg, 1989).

The following data was also collected from therapists for each case they delivered therapy to within the IMPACT trial:

i.   *Session record form.* A session record form was completed for each scheduled session, which documented the date of the session and whether it was attended or not (Appendix 4).

ii.   *End of treatment form.* An end of treatment form was completed, which recorded the number of sessions offered and attended, and the outcome of treatment (i.e. how treatment ended). This form was used to determine whether participants had completed or dropped out of treatment (Appendix 5).

iii.   *Session audio recordings.* Therapists were requested to audio
         record all therapy sessions with participants.

3.2.2   The IMPACT-My Experience (IMPACT-ME) Study

The IMPACT-My Experience study (IMPACT-ME; Midgley, Ansaldo, &
Target, 2014) was a qualitative, longitudinal study linked to the IMPACT
trial. The IMPACT-ME study drew on the sample of young people, and
their parents and therapists, taking part in the IMPACT trial in North
London. The overall aim of the IMPACT-ME study was to seek to
understand the expectations and experiences of therapy for the families
and therapists in the IMPACT study (Midgley et al., 2014). Where possible,
interviews took place with both young people and their parents at three
time points, and the therapists were interviewed once at the end of
treatment.

3.2.2.1 Design of the IMPACT-ME study

The IMPACT-ME interviews were designed to fit with three time points of
the wider IMPACT trial. Time 1 interviews were at baseline, prior to the
start of treatment. Time 2 interviews were at 36 weeks, by which time
adolescents should have completed their allocated treatment. Time 3
interviews were at 86 weeks, approximately a year after the end of
treatment.

3.2.2.2 Recruitment to the IMPACT-ME study

Participants taking part in the IMPACT trial in North London at each time
point were invited to take part in the IMPACT-ME sub-study. Semi-
structured interviews were conducted with those who agreed to participate
in the IMPACT-ME study.

The Time 1 IMPACT-ME interview was embedded into the
baseline assessment for the IMPACT trial, and the post-therapy
interviews were conducted separately to the IMPACT outcome
assessments. Accordingly, the Research Assistant delivering the baseline
assessment conducted the Time 1 IMPACT-ME interview. At the 36 and

86-week IMPACT outcome assessments, the Research Assistants would invite participants to take part in the IMPACT-ME study and provided an information sheet. If participants agreed, the IMPACT-ME research team contacted the adolescent and, where possible, the parent to arrange the Time 2 and Time 3 interviews.

At the Time 2 interview with the IMPACT-ME Research Assistant, the young person was asked for verbal consent for the IMPACT-ME team to interview their therapist. With this consent, another member of the research team made contact with their therapist to ask them to participate in the IMPACT-ME study. Where a therapist had more than one IMPACT case, separate interviews were conducted for each case.

3.2.2.3 IMPACT-ME interviews

The interview schedules developed for the IMPACT-ME study were semi-structured, allowing the researcher to guide the interview to cover the key topics of interest, while still enabling the conversation to be participant driven. The interview schedules were developed specifically for the purpose of the IMPACT-ME study, although drew on elements of Elliot's Change Interview (Elliott, Slatick, & Urman, 2001). At the start of the interview, the researcher explained that they were interested in hearing about the participants' experiences in their own words, and that there were no right or wrong answers. There was a separate interview schedule for each time point, and for adolescents, parents and therapists.

At Time 1, the Expectations of Therapy Interview (Midgley, Ansaldo, Parkinson, Holmes, et al., 2011a) was used. This interview schedule focused on three main areas: the difficulties that brought the young person to CAMHS, how they made sense of these difficulties and their hopes and expectations for therapy. The Time 1 interview schedule was designed for interviews to last approximately 15-20 minutes. Time 1 data was not used in the research in this thesis.

At Time 2, the Experience of Therapy Interview (Midgley, Ansaldo, Parkinson, Holmes, et al., 2011b) was used. This included the same areas that the previous interview schedule covered, while also exploring how things had changed since Time 1, the story of their therapy, including

how therapy ended, and their experience of taking part in the research (Appendices 6-7). Time 2 interviews were intended to last approximately 60 minutes. The therapist version of the interview schedule mirrored that of the adolescent Time 2 interview schedule, to explore the story of therapy from the perspective of the therapist.

At Time 3, the Thinking Back About Therapy Interview (Midgley, Ansaldo, Parkinson, Holmes, et al., 2011c) was used. This covered the same topics as the previous interview, and focused on reflecting on their experiences throughout their involvement in the study (Appendix 8). As with the Time 2 interview schedule, Time 3 interviews were intended to last approximately 60 minutes.

3.2.2.4 *Sample for the IMPACT-ME study*

At Time 1, 77 adolescents and 43 parents, who were eligible and randomised into the IMPACT trial, took part in the IMPACT-ME interviews. At Time 2, 81 adolescents and 53 parents were interviewed. At Time 3, 93 adolescents and 60 parents were interviewed. The variation in the number who participated at each time point is the result of differences in the number of cases who were contactable, available and willing to be interviewed at each time point. In total, 79 therapist interviews were conducted (23 BPI cases; 29 CBT cases; 27 STPP cases).

3.3 **Ethical considerations**

The study protocol was approved by Cambridgeshire 2 Research Ethics Committee, Addenbrookes Hospital, Cambridge, UK (REC Ref: 09/H0308/137; Appendix 9). This ethical approval covered both the IMPACT and IMPACT-ME studies.

Separate consent was sought for the IMPACT and IMPACT-ME studies. Adolescents were referred from recruiting CAMHS sites. Young people and parents were posted an information sheet about the study in advance of their baseline assessments for the IMPACT trial. Information sheets were age appropriate, with separate versions for adolescents aged 11-15 years (Appendix 10), 16-17 year olds (Appendix 11) and

parents (Appendix 12). Fully informed consent was sought at the baseline assessment. Written consent was sought from the young people to take part in the IMPACT study, and for those under the age of 16, parental consent was also sought (see Appendices 13-15 for the adolescent and parent consent forms). Separate information sheets were provided for the IMPACT-ME study (Appendices 16-19), and consent was sought for participation in this study (Appendices 20-23). During the consent process, young people and their parents were given the opportunity to ask any questions and to discuss any concerns that they had about participating in the studies. Anna Freud National Centre for Children and Families and University College London (UCL) data protection and confidentiality policies were followed. Participants were informed that they had the right to withdraw from the studies at any time.

IMPACT-ME interviews were transcribed verbatim. To protect confidentiality, interviews were fully anonymised and any identifiable details given by participants during their interviews were excluded or disguised in the interview transcripts and in the write up of this research. Participants were assigned pseudonyms which were used in this thesis when referring to specific case examples.

3.4 Operationalising treatment dropout, completion and not starting

Participants were considered to have dropped out of therapy if they ended therapy without the mutual agreement of their therapist, regardless of the number of sessions attended, as reported by their therapist. This definition was selected for this study, as it is the most well accepted definition in the contemporary dropout literature (Wierzbicki & Pekarik, 1993), as described in Chapter 1. Participants were considered to have completed therapy if their therapist recorded that therapy had ended as planned or by mutual agreement.

Dropout or completion status was determined by the 'end of treatment' form completed by therapists (Appendix 5). Specifically, cases were considered to have dropped out where the therapist selected the options for treatment ending as: 'subject withdrawn from treatment' or

'does not attend'. The remaining response options available on the form were: 'discharged by mutual agreement as improved', 'discharged by mutual agreement as therapy not felt to be helping', 'practical (e.g. subject moves)', 'serious adverse event', 'continuing with allocated treatment' and 'other'. These options were viewed as treatment completion as they implied an agreed ending, whether this was for positive, negative or practical reasons. The cases who were continuing with the allocated treatment were classified as completers as although the treatment was on-going, they had completed the sessions offered as part of the trial. For those cases where the therapist selected the 'other' option, the accompanying free text box was considered to determine the treatment ending status. In all such cases, they were considered as agreed endings based on the information provided by the therapists, so were classified as having completed treatment.

Participants who did not attend any therapy sessions were classified as non-starters, as they have been considered to be a distinct group in the literature (Hatchett & Park, 2003), as discussed in Chapter 1. Non-starters are not the focus of this thesis, but rates of treatment completion, dropout and non-starting will be reported in Study 1.

3.5   The design and structure of this thesis

The overall aim of this thesis was to explore the phenomenon of therapy dropout in the context of adolescent depression, drawing on data from the IMPACT and IMPACT-ME studies. This thesis had an emergent design, whereby each study informed the direction of the subsequent studies. The research questions that emerged during this research and that this thesis sought to answer were:

i.   Are demographic, child, family and treatment factors predictive of dropout, in adolescents receiving therapy for depression?

ii. Is dropping out of therapy associated with poorer clinical outcomes compared with therapy completion, in adolescents receiving therapy for depression?

iii. Are there more meaningful classifications of dropout, compared with the generic definition of dropout, in adolescents receiving therapy for depression?

iv. What are the patterns of therapeutic alliance and rupture-repair that occur in the lead up to different types of dropout, in adolescents receiving therapy for depression?

There is a dearth of research investigating therapy dropout in the context of adolescent depression, and therefore this thesis begins by testing how existing research findings from the dropout literature applied to this sample of depressed adolescents. The first two research questions were hypothesis driven, based on existing empirical and theoretical literature, while the second two research questions were more exploratory, and sought to gain a richer understanding of the phenomenon of dropout itself. Each of the studies that comprise this thesis are summarised below. The methods of data analysis for each of the four studies will be explained in the appropriate empirical chapters (Chapters 4-7).

3.5.1 Study 1

The first research question aimed to investigate whether therapy dropout could be predicted from a range of demographic, child, family and treatment factors. Study 1 used data collected from the full IMPACT sample and was analysed quantitatively. Predictors that were investigated in this study were informed by the existing literature, and primarily focused on baseline data, with a view to identifying whether adolescents' presentation prior to the start of treatment could predict whether they would complete or drop out of treatment. However, some within-treatment factors were also investigated as predictors of dropout, as informed by the literature. This study sought to test how previous research findings regarding predictors of dropout applied to a sample of depressed adolescents.

3.5.2 Study 2

The second research question aimed to investigate whether the clinical outcomes differed between adolescents who completed and those who dropped out of therapy in the IMPACT trial. This study used data from the primary and secondary outcome measures from the IMPACT trial, and the full IMPACT sample was included in this study. Data were analysed quantitatively. This study sought to test how previous findings of the association between dropout and clinical outcomes applied to a sample of depressed adolescents.

3.5.3 Study 3

The third research question sought to explore whether there was a more meaningful way of classifying dropout than the existing definition of dropout that had been used in Study 1 and Study 2. This study emerged out of surprising findings in the previous studies that led me question whether these findings were the result of issues with the way in which dropout had been conceptualised and operationalised. This study sought to deconstruct and re-construct the concept of dropout by drawing on the IMPACT-ME interviews with adolescents and therapists about their experiences of therapy, for the cases that had been classified as dropouts by the generic dropout definition. Qualitative analysis led to the development of a typology of dropout, comprising three distinct categories of dropout, focusing on the reasons for dropout from the perspectives of both the adolescents and their therapists. This subsequently allowed quantitative comparison of the cases in each of the different dropout types, drawing on data from the IMPACT study, to identify whether characteristics of the cases and their outcomes differed between adolescents in these newly constructed types of dropout. This study therefore had a mixed methods design, drawing on interview data that was integrated with quantitative data from the trial.

3.5.4 Study 4

Study 4 built on the findings of Study 3 to seek to explore what had happened in treatment prior to different types of treatment endings

constructed in the previous study. The fourth research question aimed to explore whether there were different rupture-repair processes in the therapeutic alliance that occurred in the lead up to different types of dropout compared with cases where the adolescent completed treatment. This study used audio recordings of therapy sessions for a sub-sample of the IMPACT participants. Observer rated measures of the therapeutic alliance and rupture-repair were applied to the session recordings for the selected cases, for dropout and completer case. These observer rated measures derived both quantitative and qualitative data, so this study used a mixed methods design.

3.6   Mixed methods research

A mixed methods approach was adopted for the research in this thesis. An overview of the paradigms that underpin research methods will be discussed, leading on to justification of why a mixed methods design was used in this research.

3.6.1   An overview of the paradigm debate

Within the physical sciences, science seeks to promote knowledge, in which data are systematically collected and objectively verified (Onwuegbuzie, 2002). It is often regarded that a positivist epistemology underpins the physical sciences, which is concerned with inanimate objects that exist independently of humans, and can often be measured with almost perfect reliability (Onwuegbuzie & Leech, 2005). Comte (1798-1857) argued that the study of social science should reflect the methods used in the physical sciences and that social observations should be treated in the same way as physical matter, thus advocating a positivist epistemology in the social sciences (Onwuegbuzie, 2002).

In the 20th century however, it was questioned whether a positivist epistemology could be applied to the social sciences (Onwuegbuzie, 2002). While physical science is concerned with the study of inanimate objects, the social sciences focus on the study of society and the human mind and behaviour. This is often concerned with studying concepts that can only be measured indirectly, such as personality or intelligence,

which inevitably have some degree of error (Onwuegbuzie & Leech, 2005). Dilthey challenged the positivist position, highlighting the difference between the subject matter of the physical and social sciences. While positivists claim their methods are objective, there are many subjective decisions made during the research process, from the research questions and measures used, to the use of the 5% level of significance (Onwuegbuzie & Leech, 2005). Criticisms of the positivist perspective led to the use of more interpretative approaches to social science, and Dilthey posited that there was no objective social reality (Onwuegbuzie, 2002).

Traditionally, quantitative research dominated the study of psychology in the English-speaking world, yet in the 1950-1960's, qualitative and more social constructionist approaches to the social sciences were emerging which gave rise to the "paradigm wars" (Bryman, 2006, p. 111); a time where researchers debated whether quantitative or qualitative research was more appropriate for the study of social science (Wiggins, 2011).

Research in the social sciences is often considered as quantitative or qualitative, which are often regarded as being underpinned by opposing epistemologies. The positivist paradigm has often been considered to underpin quantitative methods (Sale, Lohfeld, & Brazil, 2002), in which it is assumed that reality is observable and quantifiable (Krauss, 2005). The ontological position underpinning positivist research is therefore that there is a single, objective reality, which is 'knowable' in some objective way (Sale et al., 2002). From this perspective, it is viewed that knowledge is obtained through empirical observations in order to understand this objective reality. In contrast, qualitative research has often been considered to fit within an interpretivist paradigm. From this position, knowledge is viewed as socially constructed and reality is seen as ultimately subjective and constructed through social interactions (McEvoy & Richards, 2006). The ontological position underpinning interpretivism is that there are multiple truths, and these truths are based on human construction of reality (Sale et al., 2002). From an interpretivist perspective, it is viewed that there is no access to reality independent of

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human interpretation (Smith, 1983). This position therefore rejects the idea that knowledge represents reality in any straightforward way.

Debates about the merits of quantitative and qualitative methodologies have partly centred around the ontological and epistemological differences between positivist and interpretivist positions, and the opposition between them has been discussed in terms of different assumptions about the nature of truth and reality (Morgan, 2007). However, Hammersley (2002) highlighted that not all quantitative researchers are realists and qualitative researchers have often adopted a realist position, whereby objects are regarded as existing independently of the researcher's interpretation of them. Thus, the commonly held view of the epistemological differences underpinning quantitative and qualitative research has been regarded as an artificial distinction (Broom & Willis, 2007; Hammersley, 2002).

The artificial distinction between quantitative and qualitative research is not limited to the epistemologies that are considered to underpin them: they are also often considered as utilising distinctly different methods. Quantitative research is considered as being concerned with numbers and qualitative research with words, but this an overly simplistic distinction (Brannen, 2005). Hammersley (2002) argued that this dichotomy is false, as most research does not fit neatly into categories of quantitative or qualitative research, as studies often concern both numbers and words. For instance, 'qualitative' researchers often make quantitative claims, and quantitative data are ultimately based on accounts in words. This issue was elaborated on by Allwood (2012), who argued "all research is *at least qualitative"* (p. 1423)*,* on the basis that in any study, there are several qualitative components. Such components include verbal formulation of the research problem, the way in which the data are classified and results interpreted. He noted that in all studies, the "the data are classified as *something;* they do not just exist as unclassified numbers" (Allwood, 2012, p. 1423), reflecting that quantitative research cannot be based solely on numbers. These critiques of the quantitative-qualitative dichotomy reflect that there is a great deal of overlap between approaches that are often labelled as

quantitative or qualitative. For instance, while quantitative research is typically considered as being concerned with hypothesis testing, there are quantitative approaches that are descriptive or exploratory (such as exploratory factor analysis), while there are qualitative approaches that may be confirmatory (Guest, Macqueen, & Namey, 2012).

Social scientists were divided between quantitative and qualitative research during the "paradigm wars" (Bryman, 2006, p. 111). During the paradigm wars, the focus was on the differences between quantitative and qualitative research, with little acknowledgement of the similarities between these paradigms (Onwuegbuzie & Leech, 2005). Allwood (2012) argued that general criticisms of quantitative or qualitative approaches to research were counterproductive, as both have something to offer social science. Onwuegbuzie and Leech (2005) argued that there are more similarities between these paradigms than differences. For instance, both attempt to understand human beings and the world around them, both use observations to answer their research questions and both make efforts to minimise bias. Therefore the strengths and weaknesses of different research methods should be considered in relation to each specific research question, so that the most appropriate methods for the research question are utilised (Allwood, 2012).

Quantitative and qualitative methods have often been considered as in opposition, and were previously described as incompatible (Howe, 1988). However, such claims have been challenged (Onwuegbuzie, 2002). A more pragmatic viewpoint would regard this as a restrictive approach to research, and would consider that all approaches have value; a viewpoint that I identify with. Hammersley (2002) argued that researchers need to recognise the diversity of methodological options available, and that research designs should be based on practical decisions, rather than on philosophical commitments, thus adopting a more pragmatic view to research. In 2006, Bryman stated that the "paradigm wars can be considered over and peace can be regarded as having broken out" (Bryman, 2006, p. 113). While mixed methods has been used in the study of social science since the 1950's (Creswell &

Plano Clark, 2011), after the end of the so-called paradigm wars, the use of mixed methods research has increased, which have been defined as:

> *"Collecting, analyzing and mixing quantitative and qualitative data in a single study. Its central premise is that the use of both approaches in combination provide a better understanding of research problems than either approach alone"* (Creswell & Plano Clark, 2007, p. 5).

While traditionally, quantitative and qualitative methods were considered incompatible (Teddlie & Tashakkori, 2003), mixed methods researchers have rejected this claim and adopt a pragmatic framework that embraces the strengths of both methodologies (Bryman, 2006). While the distinction between quantitative and qualitative research continues to be referred to, there is a growing acknowledgement that both have value in the social sciences (Bryman, 2006).

Quantitative research is rated more highly than qualitative research on the hierarchy for establishing evidence based treatments, including RCTs (Oxford Centre for Evidence-Based Medicine, 2009). However, there has been a growing trend towards mixed methods. For instance, there has been an increase in studies that embed qualitative methods within RCTs, such as the IMPACT-ME study (Midgley et al., 2014). While RCTs can inform us about relative efficacy of different interventions, they are not without their limitations. For instance, RCTs do not necessarily allow us to learn anything about how or why a treatment works or doesn't work. They are limited in what they can tell us about how people experience the interventions, potential undesirable effects of the interventions and client's preferences for treatment (Noyes, 2010). Nevertheless, these are clinically important issues that qualitative methods lend themselves to. Qualitative methods therefore have potential to "put the flesh of clinical meaning on the bones of quantitative outcomes" (Target, 2018, p. 36) and can help to explain null or unexpected findings (O'Cathain, Thomas, Drabble, Rudolph, & Hewison, 2013).

A pragmatic framework therefore values both subjective and objective knowledge, and considers that research decisions should be

about the research question rather than the theoretical lens or paradigm that underpins the model (Scott & Briggs, 2009). Tashakkori and Teddlie state that pragmatist researchers "consider the research questions to be more important than either the method they use or the paradigm that underlies the method" (Teddlie & Tashakkori, 2003, p. 21), providing a pluralist framework that permits the researcher to select the mixture of methods that works best for answering any particular research question.

It has been argued that mixed methods can allow researchers to develop a richer understanding of a phenomenon (Yardley & Bishop, 2007), and that this approach allows the researcher to examine 'how and why' social phenomena occur within certain contexts and circumstances (Mason, 2006). Mixed methods research therefore has several advantages. For instance, triangulation of different types of data allow testing of how findings converge that can enable the researcher to become more confident in their findings, while contradictions or inconsistencies between different types of data can lead to a richer and more comprehensive understanding of phenomena (Onwuegbuzie, 2002; Rossman & Wilson, 1985). Moreover, qualitative methods may lend themselves to conceptual development and can help to shed light on quantitative results (Onwuegbuzie, 2002).

3.6.2   *Rationale for using a mixed methods research design*

As this thesis was part of the IMPACT and IMPACT-ME studies, I was fortunate to have a dataset that was suitable for a mixed methods investigation, as it consisted of data that would lend itself to both quantitative and qualitative research methods. I considered a mixed methods approach to be most appropriate to my aims and research questions. Teddlie and Tashakkori (2003) argued that "a major advantage of mixed methods research is that it enables the researcher to simultaneously answer confirmatory and exploratory research questions, and therefore verify and generate theory in the same study" (p. 15). This made mixed methods a fitting approach for my own research, as while there were existing research findings and theories of dropout that I wanted to test in the context of treatment for adolescent depression, I

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was also aware of the limitations of adopting a solely confirmatory approach in my research.

While so-called 'quantitative' and 'qualitative' methods have often been regarded as incompatible, I hope to illustrate in this thesis how, in fact, different methods can work together and complement each other. The aim of this research was to establish a richer understanding of dropout; a phenomenon that is poorly understood. In my first two studies, I was interested in comparing the characteristics and outcomes of completers and dropouts, both of which would lend themselves to a quantitative approach. The statistical analyses conducted in these studies required clearly defined concepts: for instance, dropout was operationalised and thus conceptual certainty was assumed. Quantitative methods allowed me to test how existing theory and findings from other studies generalised to adolescents receiving treatment for depression. For instance, Study 1 sought to investigate whether there were pre-treatment characteristics that predicted dropout, which allowed testing of Kazdin's (1996) risk factor model of dropout in the context of treatment for adolescent depression. Therefore, this approach allowed testing of existing theory of dropout, as well as testing the common assumption that dropout constitutes treatment failure (Cooper et al., 2018), through comparing the clinical outcomes of those who completed and dropped out of therapy (Study 2). Quantitative methods were therefore suitable for testing existing theory and assumptions surrounding dropout, yet some unexpected findings led me to undertake exploratory work.

In Chapter 1, issues regarding the operational definitions of dropout and the limited theorisation of dropout were discussed. While it was necessary to operationalise dropout for my statistical analysis, from the outset, I was aware of issues regarding how dropout has been operationalised. I anticipated that I would need to utilise exploratory methods to gain a richer understanding of the phenomenon of dropout. Incorporating qualitative methods therefore offered potential to better understand and contextualise the quantitative findings reported in this thesis, as well as to understand the phenomenon of dropout from the perspectives of the adolescents and their therapists; perspectives that are

largely absent from the existing literature. In Study 3, I therefore used ideal type analysis (Weber, 1949), which enabled me to deconstruct the meaning of dropout and this led to the development of a new concept: types of dropout. I was then able to generate and test hypotheses relating to these newly constructed types of dropout. This included both re-analysis of quantitative data from the trial, as well as using observational measures to derive further quantitative and qualitative data from the therapy session audio recordings. This allowed further exploration of the types derived from the qualitative analysis, integrating multiple data sources, which further differentiated the dropout types. The use of ideal type analysis allowed me to develop a revised conceptualisation of dropout. The research therefore moved through an iterative process of theory testing, to theory building, which was then further tested.

Mixed methods are often appropriate for researching complex issues, and in the context of therapy dropout, mixed methods was considered an ideal approach for understanding the characteristics of those adolescents who dropped out of therapy, as well as *why* they dropped out, enabling this thesis to establish a more complete picture of the phenomenon of dropout in the context of treatment for adolescent depression. Methodological reflections on using mixed methods for the research in this thesis will be discussed in Chapter 8.

3.7   The epistemological position underpinning this research

This research was approached from a critical realist position (McEvoy & Richards, 2006). Critical realism is a relatively recent philosophical perspective, which has arisen out of a perception that both the positivist and interpretivist positions are overly simplified and do not fully capture the complexities of the social world (Danermark, Ekström, Jakobsen, & Karlsson, 2002). Critical realism is often seen as the middle ground between positivism and interpretivism (Zachariadis, Scott, & Barrett, 2013), which harnesses the strengths and addresses the weaknesses of positivism, idealism, and relativism (Oladele, Clark, Richter, & Laing, 2013). Although critical realists share the stance of positivists in seeking patterns and causalities that can be generalised, they reject the notion

that knowledge of the social world can be reduced to observable cause and effect statistical relationships (Danermark et al., 2002; McEvoy & Richards, 2006). From this position, reality is considered multi-dimensional within the critical realist paradigm, and a combination of empirical investigations are required to identify patterns and anomalies between what is experienced, what is observed and the underlying mechanisms (Sayer, 2002).

Although critical realism agrees with empirical realism that there is one 'real' world, it is considered that researchers can't have direct access to it (Edgley, Stickley, Timmons, & Meal, 2016). Critical realism is sometimes referred to as complex realism, in that it views the world as complex and sees events as being a product of many factors coming together in certain combinations (Clark et al. 2008). Critical realism fits well with mixed methods research as it emphasises the importance of multiple measures and observations, each of which may possess different types of error, and therefore the combination of which may bring about a better grasp of the phenomenon that the research seeks to understand (Morse, 2003). This perspective assumes that data provides information about the world, yet cannot provide direct access to this reality.

As a researcher, I identify with the assumptions of the critical realist perspective. In the context of my research, I consider that there is a reality behind why adolescents drop out of therapy; however, we cannot have direct access to understanding why adolescents drop out of therapy. Moreover, adolescents themselves may not have direct access to this understanding. There are likely to be many complex social and psychological processes underpinning the phenomenon of dropout, and none of us fully know why we behave as we do. Multiple methods are therefore required to try to understand it. The studies in this thesis draw on multiple data sources, including adolescent self-report outcome measures, qualitative interviews and observer rated measures of therapy session recordings. While this research draws on a rich multi-method dataset, none of these sources could provide direct access to the reality of dropout. For instance, this research utilised interviews with the

adolescents about their experience of therapy. This gave an insight into the participants' subjective perception of the reasons as to why they dropped out of therapy, but cannot be viewed as an 'objective' statement as to why dropout occurred. Regardless of how forthcoming the participant was, the data could only tell us what the participant was willing to share, could remember and was conscious of. Participants' accounts could not be considered full or complete as much mental processing occurs outside of conscious awareness (Freud, 1915). Due to this limitation, I also used observational methods to investigate what happened in the therapy sessions in the lead up to drop out to identify markers of dropout (using audio recordings of the therapy sessions). This enabled me to triangulate both the perspectives of the adolescents and the therapists with observation of what happened in the therapy room, so these different approaches to the study of dropout can complement each other and extend our understanding of dropout. A mixed methods design was therefore particularly suited to the complexity of the research questions that this thesis aimed to address. All data sources were given equal weighting, and then will be brought together in the general discussion to consider what each of these studies contributes to knowledge about the phenomenon of dropout. It was considered that there is a reality that underpins the phenomenon of therapy dropout, and the various data sources that this study draw on provide an imperfect and partial impression of reality (Robinson & Smith, 2010).

4 Study 1: Predictors of psychotherapy dropout in adolescent depression

A version of this study has been published in *Psychotherapy Research* and is presented in Appendix 24 (O'Keeffe et al., 2018).

4.1 Introduction

The overall aim of this thesis is to seek to understand therapy dropout in adolescent depression. A logical starting point was to investigate the extent of the phenomenon of dropout in adolescent depression. This study will report on the dropout rates and when therapy dropout occurred in the IMPACT sample. Another important starting point was to investigate whether there were characteristics that could predict dropout in adolescents receiving therapy for depression, as identifying predictors of dropout may inform engagement strategies or dropout prevention strategies.

4.1.1 Psychotherapy dropout rates

Dropout is a common occurrence in psychological treatment. As discussed in Chapter 2, in studies with adults, dropout rates from CBT have been found to be higher in clients with depression (36.4%) compared with clients with other disorders, including anxiety disorders (19.6%) and psychosis (20.1%) (Fernandez, Salem, Swift, & Ramtahal, 2015). People with depression have been found to be more likely to reject treatment than those with anxiety disorders (Bebbington, Marsden, & Brewin, 1999). It is possible that depression increases the risk of dropout due to the nature of the disorder: the social withdrawal and hopelessness experienced in depression may influence a client's decision to reject therapy, through feeling hopeless that it won't help (Fernandez et al., 2015).

As reported in Chapter 2, adolescents have been found to be at greater risk of dropping out of therapy than adults (Roseborough et al., 2016). In the most recent meta-analytic review of dropout rates in child

and adolescent outpatient care, it was estimated that dropout rates were 26% in efficacy studies and 45% in effectiveness studies, when dropout was defined according to therapist judgement (de Haan et al., 2013). Little is known about dropout rates specifically in young people with depression. This study addressed this gap in the literature.

4.1.2 Predicting therapy dropout

The theory underpinning this study is Kazdin's (1996) risk factor model, which outlines conditions that may increase the likelihood of families dropping out of treatment. As discussed in Chapter 2, there has been empirical support for Kazdin's risk factor model. The majority of these studies have been carried out in samples of children with conduct problems, and no known study has tested how the risk factor model applies to adolescents receiving therapy for depression. This is an important area for research, because if young people at risk of disengaging from services can be identified before starting or early in the treatment process, it may be possible to repurpose interventions to help engage more effectively than hitherto those most at risk of dropout.

Overall, there is evidence that there are factors that predispose adolescents to an elevated risk of dropout, yet there is a dearth of research into what factors are predictive of dropout in adolescents with depression. This study addressed this gap in the literature. In addition to risk factors for dropout, therapeutic alliance and missed sessions were also investigated as predictors of dropout, given that these have been found to be predictive of dropout in the literature to date, to see if these findings extend to a population of depressed adolescents.

4.1.3 Aim of Study 1

The first aim of this study was to investigate dropout rates and the pattern of dropout in the sample. This included comparison of dropout rates across different treatment modalities and regions, and of patterns of session attendance for adolescents who completed and dropped out of therapy.

The second aim of this study was to test how Kazdin's risk factor model applied to a sample of adolescents receiving therapy following a diagnosis of moderate to severe depression, focusing on child and family factors. However, the therapeutic alliance was also investigated as a predictor of dropout, given the likely importance of the therapeutic relationship based on findings from previous studies (Cordaro, Tubman, Wagner, & Morris, 2012; de Haan et al., 2013; Robbins et al., 2006).

Based on the existing literature, it was hypothesised that dropout would be higher for adolescents who missed more sessions, were older, male, of ethnic minority status, with higher symptom severity at the start of therapy, lower scores of intelligence, lower scores of therapeutic alliance, for those with more inconsistent parental supervision and whose parents had higher symptoms of mental health problems.

4.2 Method

4.2.1 Sample

The sample in Study 1 consists of the full IMPACT sample, excluding twelve cases where it was unknown how therapy ended due to incomplete therapist records. This study reports on 453 participants from the IMPACT trial. Participants ranged in age from 11 to 17 years ($M =$ 15.59, $SD = 1.43$) at their baseline assessment. 338 (74%) participants were female and 115 (26%) were male. 81% of participants were white, 7% were of mixed ethnic background, 2% were Asian, 3% were black, 3% were from any other ethnic background and ethnicity was missing for 4% of the sample. Participants were classified as having completed, dropped out of or not started therapy, as described in Chapter 3.

4.2.2 Data

Full details of data collection and all measures used in the IMPACT trial are outlined in Chapter 3. Measures were selected where there was an a priori hypothesis that a variable would be predictive of dropout, based on the existing literature. The following measures (completed at baseline, unless otherwise specified) were included as predictors of dropout:

i.   *Demographics.* Age, sex and ethnicity, collected on a demographics questionnaire.

ii. *Number of comorbid psychiatric disorders.* For the purpose of this study, the sum of the number of comorbid psychiatric disorders (excluding conduct disorder) that participants met criteria for was computed, as measured by the Kiddie–Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997).

iii. *Depression severity.* The Mood and Feelings Questionnaire (MFQ; Angold, Costello, Pickles, & Winder, 1987).

iv. *Anxiety severity.* The Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978).

v.   *Overall symptoms and psychosocial functioning.* The Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA; Garralda, 2000).

vi. *Obsessionality.* The Short Leyton Obsessional Inventory (LOI; Bamber, Tamplin, Park, Kyte, & Goodyer, 2002).

vii. *Antisocial Behaviour.* The Antisocial Behaviours Questionnaire (ABQ; Goodyer et al., 2017).

viii. *Risk taking and self-harm.* The Risk-Taking and Self-Harming Inventory for Adolescents (RTSHIA; Vrouva, Fonagy, Fearon, & Roussow, 2010).

ix. *Verbal intelligence.* The Wechsler Abbreviated Scale of Intelligence (WASI; Wechsler, 1999). This measure was completed at 52-weeks, but was included as a predictor of dropout as it was expected that intelligence would remain stable over time (Schneider, Niklas, & Schmiedeler, 2014).

x.   *Parenting styles.* The Alabama Parenting Questionnaire – Short Form (APQ-SF; Elgar, Waschbusch, Dadds, & Sigvaldason, 2007).

xi. *Parental mental health.* The Global Symptom Index (GSI) on the Symptoms Checklist-90 (SCL-90; Derogatis & Unger, 2010), completed by parents.

xii. *Therapeutic Alliance.* The Working Alliance Inventory (WAI), completed by the adolescent at the six-week assessment (Tracey & Kokotovic, 1989).

xiii. *Missed sessions.* Missed sessions were measured on the session record forms completed by therapists at each planned therapy session. A missed session was defined as a session that had been scheduled but that the young person neither cancelled nor attended, as recorded by the therapist.

4.2.3 Hypotheses

Dropout will be higher for adolescents:
1) who miss more appointments.
2) that are older, male, or of ethnic minority status.
3) with higher symptom severity at the start of therapy.
4) with lower scores of intelligence.
5) with more inconsistent parental supervision and whose parents have higher symptoms of mental health problems.
6) with poorer therapeutic alliance scores.

4.2.4 Data analysis

Data analyses were conducted in Stata version 14.1. Descriptive statistics were used to report dropout rates in the sample, across the three treatment arms and three regions in the trial, and to examine the pattern of session attendance in the lead up to dropout. Logistic regression analyses were used to test whether dropout could be predicted from missed sessions.

Hypotheses were tested using logistic regression to examine predictors of dropout. Treatment arm and region were controlled for in the models. BPI was included as the reference group and dummy variables for CBT and STPP were included. To aid interpretation, numeric predictors (with the exception of age) were standardised ($M = 0$, $SD = 1$), so the estimates show the change in the odds of dropping out with a one SD increase in the predictor variable. Since in the IMPACT design participants were clustered within therapists, a random intercept for therapist was included in all models.

The Pearson correlation coefficients between the independent variables are shown in Appendix 25. To investigate the possible effects of

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multicollinearity, the variance inflation factor (VIF) was computed in Stata. This indicates the extent to which the variance of an estimated regression coefficient is increased because of collinearity. VIFs greater than four indicate problems with multicollinearity (Miles & Shevlin, 2001). The VIFs for the independent variables were found to be acceptable, ranging from 1.24 to 2.84 (Appendix 26) and therefore multicollinearity was not considered to be a problem. Model selection was based on Akaike's Information Criterion (AIC; Akaike, 1973), which is a method for finding an appropriate balance between model fit and the number of parameters (Burnham & Anderson, 1998).

The principle of Events Per Variable was followed (EPV; Vittinghoff & McCulloch, 2007). This principle balances the number of events (i.e. dropouts) with the number of predictor variables, which considers there should be at least ten events per predictor variable. This is a rule of thumb for ensuring sufficient power for multivariate analysis (Meulenbeek, Seeger, & ten Klooster, 2015), although it remains an area of methodological debate (Courvoisier, Combescure, Agoritsas, Gayet-Ageron, & Perneger, 2011). There were slightly fewer than ten events per variable (EPV = 8), yet it has been argued that this rule of thumb is overly conservative (Vittinghoff & McCulloch, 2007) so was relaxed in order to include all variables of interest where there was a hypothesis guided by the existing literature, justifying their inclusion in the statistical analyses.

4.2.5 Missing data

The rate of missing data on the measures used in this study ranged from 0-54% (Appendix 27). Important consideration must be given to how missing data is handled. Traditional techniques for handling missing data include listwise deletion (i.e. complete case analysis), but are problematic as they may lead to biased or unreliable parameter estimates (Osman, Abu-Mahfouz, & Page, 2018). While this approach may be appropriate when a small proportion of data is missing (e.g. <5%), when missing data is more substantial, deleting entire cases is problematic as it leads to loss of information and decreased statistical power (Lodder, 2013). It also potentially leads to bias, if data are Missing at Random (MAR) or Missing

Not at Random (NMAR). Other traditional approaches to handling missing data involve single imputation, the process whereby missing values are replaced with a likely value, such as by imputing the mean value of the other cases (Donders, van der Heijden, Stijnen, & Moons, 2006). However, the disadvantages of this approach are that data are analysed as though the data were observed, which underestimates standard errors or overestimates the precision of model estimates (Donders et al., 2006). These issues have led to the development of more sophisticated techniques, in particular, methods for imputing missing data, namely multiple imputation (Lodder, 2013; Rubin, 1987). Multiple imputation produces a number of data sets in which each missing value is replaced with a plausible set of values. Analyses are conducted on each dataset and the results of these analyses are then combined, so that the estimates are averages and standard errors are adjusted using Rubin's (1987) rules, to reflect the uncertainty in the observed data, as well as the uncertainty due to the need to impute missing data. The main advantage of multiple imputation is that it makes the most of the available information, both by not deleting cases with partial missing information, and by using observed data to predict missing data. Power with multiple imputation should be at least as good as in complete case analysis, and in practice is usually higher (Graham, 2012). Multiple imputation has been regarded as the most robust option for handling missing data (Osman et al., 2018), provided that data are MAR (Rubin, 1987). MAR is the assumption that the missing values are predictable from other variables in the dataset and not dependent on any unobserved variables, and is required for missing data to be handled using multiple imputation.

The pattern of missing data reflected the running order that measures were completed in, in the research assessments; with each further questionnaire completed there were more missing data observed. This suggests that missing data was due to time constraints in the assessments and questionnaire fatigue. The SCL-90 is a parent-report measure, and many of the adolescents over the age of 16 years took part in the study without their parent (as parental consent was not required for

these participants), so the rate of missing data for the SCL-90 was higher for the older adolescents than for those aged between 11-15 years old.

Because the missing data appeared to be mostly attributable to time constraints or lack of parental involvement in the research assessments, it was assumed to be MAR, so was handled using multiple imputation. Multiple imputation was used to create 20 data sets for missing values, using the Multiple Imputation by Chained Equations (mice) package in Stata (Royston & White, 2011). The imputation model was based on the dependent variable (dropout status), therapist ID, region, treatment arm and the independent variables. Independent variables with no missing data were age, sex and MFQ score. Independent variables with missing data were imputed using predictive mean matching (White, Royston, & Wood, 2011) for continuous variables (RCMAS; LOI; ABQ; RTSHIA; HoNOSCA; GSI; APQ; WASI; WAI). Predictive mean matching was chosen over linear regression, to ensure that imputed values were within the range of plausible scores (White et al., 2011). The one categorical variable was imputed using logistic regression (ethnicity). Ethnicity was dichotomised (white; any other ethnic group), as when attempting to impute using all ethnic groups, the model failed to converge as a result of having too few cases in some ethnic groups.

4.3   Results

4.3.1   Therapists

For participants who attended at least one therapy session, the therapist was unknown for 13 BPI cases, eight CBT cases and one STPP case. Excluding these cases, 62, 44 and 38 therapists delivered BPI, CBT and STPP, respectively. Figure 1 shows the number of participants seen by each therapist, in each treatment arm. The number of participants seen by each therapist ranged between one and 15. The mode was one case, with 39 BPI therapists, 19 CBT therapists and 17 STPP therapists delivering therapy to a single case.

Figure 1. The number of participants that therapists delivered therapy to in each treatment arm
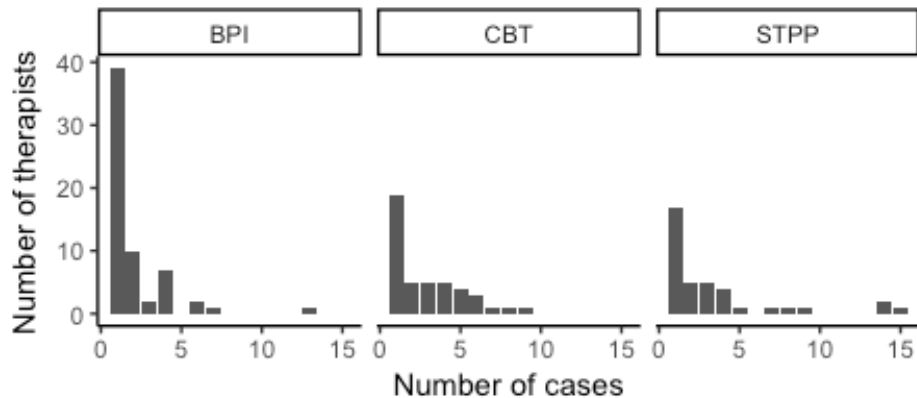
BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

4.3.2 Rates of therapy completion, dropout and not starting

Out of the 453 participants, 237 (52.3%) completed therapy, 169 (37.3%) dropped out and 47 (10.4%) did not start therapy. Figure 2 shows how therapy ended by region. The rate of therapy not starting was reasonably similar across the three regions, ranging between 5-13%, but there were substantial differences in the dropout rates. The lowest dropout rate was in East Anglia (26%), followed by North London (42%), and the highest observed dropout rate was in the North West (47%). A chi-square test was used to investigate whether there was evidence for regional differences in rates of treatment completion and dropout[1]. The chi-square test revealed evidence for regional differences in dropout rates ($\chi^2(2, N = 406) = 17.77$, $p < 0.001$).

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[1] As the focus on this research was on treatment dropout, non-starters were excluded from this statistical analysis.

Figure 2. Rates of therapy completion, dropout and not starting across the three regions
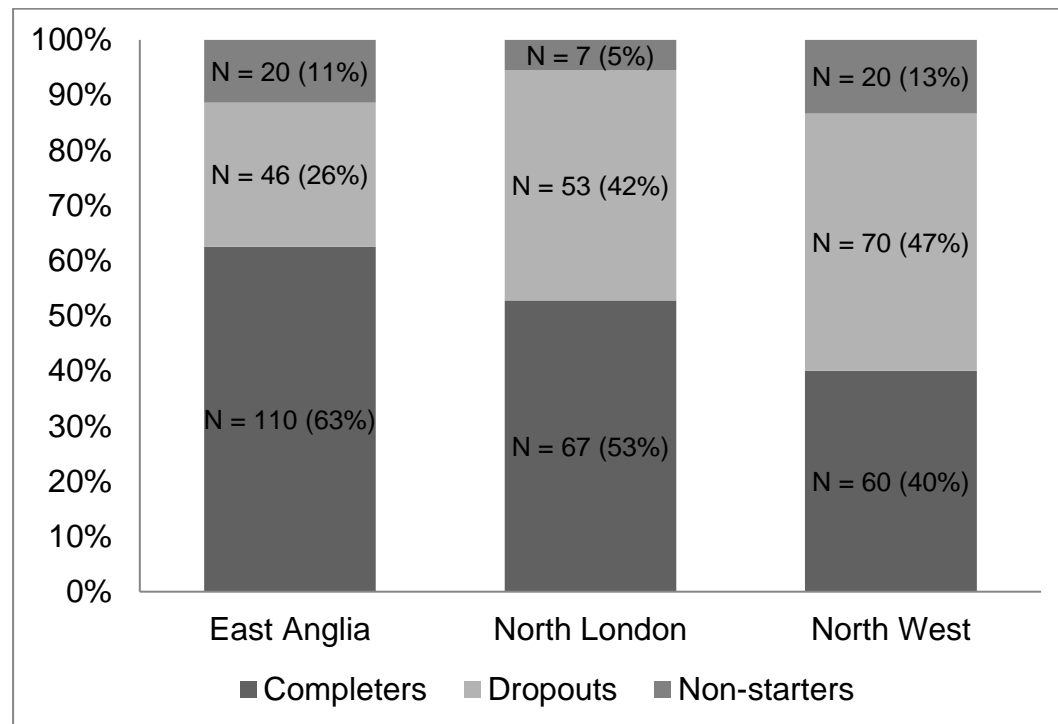
Figures based on full IMPACT sample (N = 453).

Figure 3 shows how therapy ended across the three treatment arms. Rates of therapy not starting were similar across the three arms, ranging between 7-14%. The rate of dropout was lowest for CBT (33%), followed by BPI (36%) and highest for STPP (43%). However, a chi-square test found no strong evidence for treatment arm differences in rates of treatment completion and dropout[2] ($\chi^2(2$, $N = 406) = 5.89$, p > 0.05). The trend towards a higher dropout rate in the STPP arm compared with the other treatments may reflect the difference in the intended length of the therapies, as STPP was the longest intended therapy (28 sessions). BPI and CBT had similar dropout rates, despite CBT being intended to be a longer therapy (20 sessions) than BPI (12 sessions). To further explore potential differences between the treatment arms, the next section looks at patterns of session attendance and dropout.

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[2] As the focus on this research was on treatment dropout, non-starters were excluded from this statistical analysis.

Figure 3. Rates of therapy completion, dropout and not starting across the three treatment arms
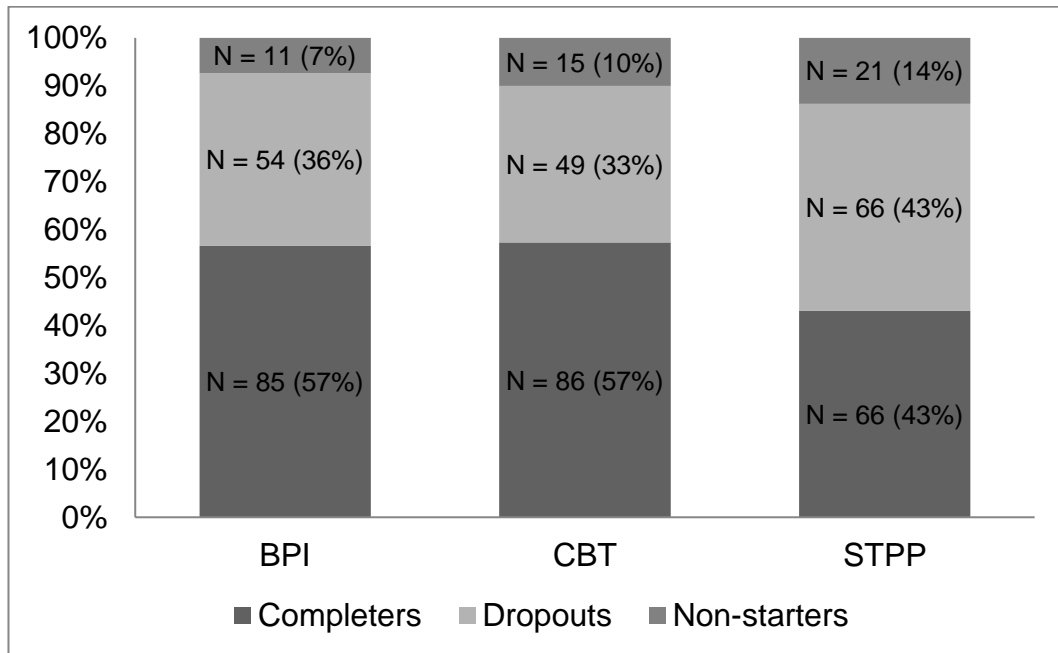
Figures based on full IMPACT sample (N = 453). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

4.3.3 Patterns of therapy attendance

The number of sessions attended, missed, and the sequence of attendance were examined. Non-starters were excluded from these results, as they did not attend any sessions, so this section reports on the 406 participants who either completed or dropped out of therapy. In these results, missed sessions after participants' last attended sessions were excluded, as it became apparent that some therapists kept offering sessions for longer than others, which would have distorted the results. For consistency across the treatment arms, the point of dropout was regarded as the last attended session. The sequence of session attendance was unavailable for cases in the North West and East Anglia, and therefore all results reporting on the number of missed sessions and the sequence of attendance will report on participants in North London

only. Therefore these findings may not be representative of the full IMPACT sample; or of adolescents with depression more generally.

Descriptive statistics are shown in Table 1 for the number of attended sessions, and their distributions are shown in the boxplots in Figure 4, comparing completers and dropouts. The boxplots show that completers consistently attended more sessions than dropouts. The distribution of the number of sessions attended by completers in the BPI arm was concentrated around the intended number of sessions (12 sessions), yet 25% of BPI completers actually attended more than the maximum intended 12 sessions. Few participants in the other treatment arms attended more than the maximum intended number of sessions.

The descriptive statistics (Table 1) show that on average, the lowest number of sessions attended was in the BPI arm, followed by CBT and then STPP, and this was consistent for dropouts and completers. This pattern corresponded with the number of sessions in the treatment manuals, as BPI was the shortest intended treatment and STPP was the longest intended treatment. It was notable that the average number of attended sessions was very similar for completers in BPI ($M = 10.40$, $SD = 7.04$) and CBT ($M = 12.27$, $SD = 5.43$), showing that while CBT was intended to be a longer treatment (up to 20 sessions), the observed number of sessions attended for completers was actually very similar to BPI, which was intended to be up to 12 sessions. This may be because a larger proportion of BPI treatment went beyond the maximum intended 12 sessions, compared to the CBT and STPP arms. The average number of sessions attended for completers in STPP was substantially longer ($M = 20.79$, $SD = 7.74$), as expected as STPP was intended to be up to 28 sessions.

Table 1. The average number of sessions attended by treatment arm for dropouts and completers

	Dropouts M (SD)	Completers M (SD)	Intended number of sessions
BPI	4.17 (2.50)	10.40 (7.04)	12
CBT	5.25 (4.07)	12.27 (5.43)	20
STPP	6.68 (4.70)	20.79 (7.74)	28

Figures based on full IMPACT sample (N = 402), excluding non-starters (N = 47) and those with missing data (N = 4). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy). Intended number of sessions.

Figure 4. Boxplot to show the distribution of number of attended sessions for each treatment arm, for completers and dropouts
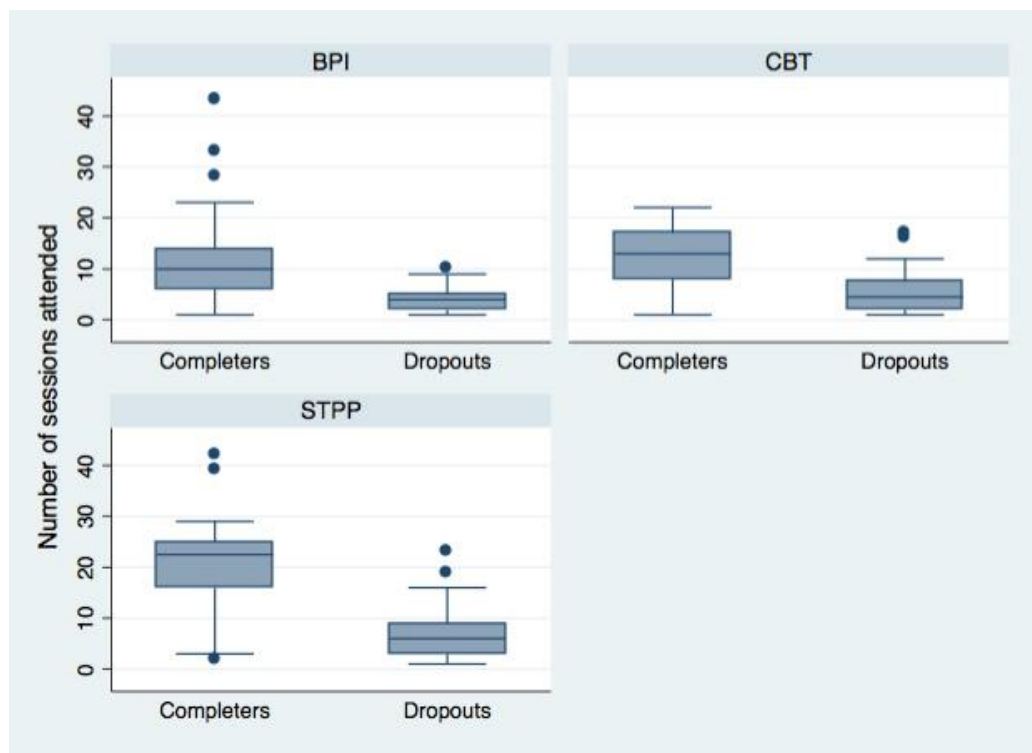
Boxplot based on full IMPACT sample (N = 402), excluding non-starters (N = 47) and those with missing data (N = 4). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy). Intended number of sessions: BPI = 12 sessions; CBT = 20 sessions; STPP = 28 sessions.

Table 2 shows the average number of sessions that participants missed, comparing those who completed and dropped out of therapy. The boxplots in Figure 5 show the distribution of missed sessions. These show that the distribution of the number of missed sessions was similar within the three treatment arms, when comparing completers and dropouts. The boxplots for BPI and CBT are shorter than for STPP, which reflects more variation in the number of missed sessions, the longer the treatment was (as the observed lengths of treatments were similar for BPI and CBT, whereas STPP was substantially longer).

Table 2. The average number of missed sessions by treatment arm for dropouts and completers

	Dropouts M (SD)	Completers M (SD)	Intended number of sessions
BPI	2.05 (2.25)	2.78 (2.32)	12
CBT	2.85 (2.97)	2.46 (2.93)	20
STPP	5.10 (4.05)	4.78 (4.15)	28

Figures based on North London cases only (N = 120). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy). Missed sessions after last attended sessions excluded. Intended number of sessions according to treatment manual.

Figure 5. Boxplot to show the distribution of missed sessions for each treatment arm, for completers and dropouts
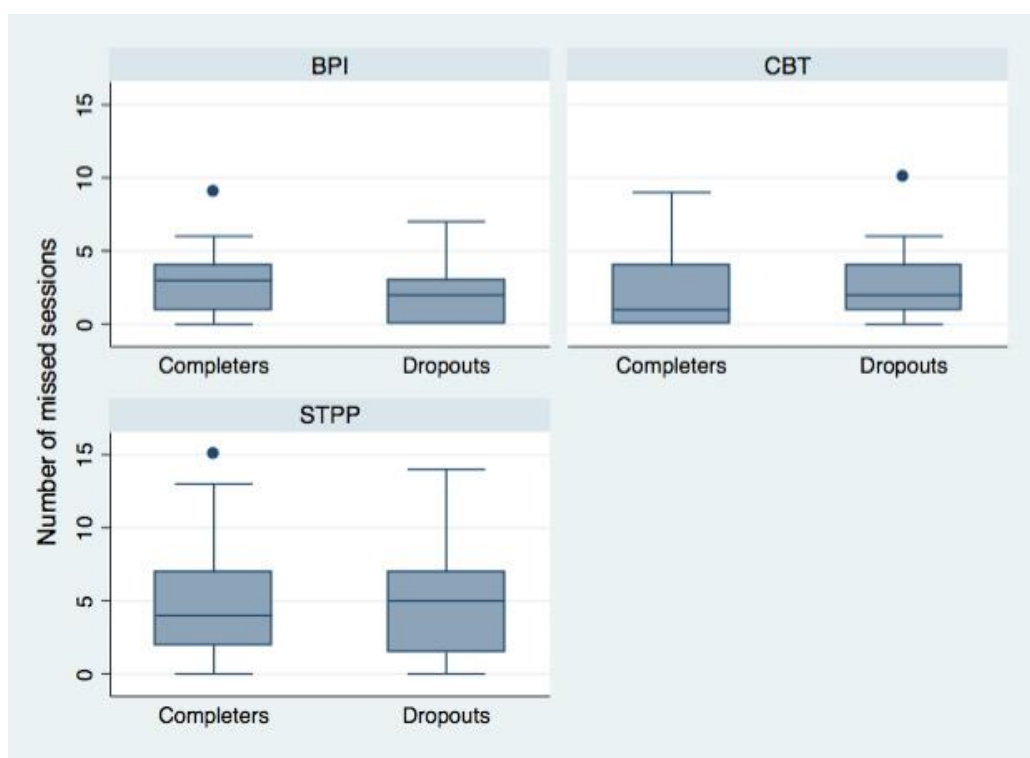
Boxplot based on North London cases only (N = 120). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy). Missed sessions after last attended sessions excluded.

Table 3 shows the percentage of sessions attended by participants, according to the number of sessions intended in the treatment manuals for the three arms. This data was available for the full IMPACT sample. This shows that the majority of dropouts attended less than 50% of the intended sessions as per the treatment manual, whereas completers tended to attend more than 50% of intended sessions. This suggests that if adolescents are going to drop out, they are most likely to do so in the early part of therapy. If they make it to the halfway point in therapy, they appear far more likely to complete therapy. This was consistent across the three treatment arms. Over half of completers in BPI (52%) and STPP (57%) attended over 75% of the intended number of sessions, compared with just 31% of completers in the CBT arm. This shows that in CBT,

there were a substantial number of participants who had an agreed ending at an earlier point in therapy than the maximum intended 20 sessions.

The percentage of offered sessions that were attended by participants are also shown in Table 3. The table shows that dropouts typically attended 26-75% of their offered sessions, whereas the majority of completers attended at least three quarters of their offered sessions.

To explore patterns of attendance further, the full records of session attendance were examined. Patterns of attendance are shown in Figures 6-8, which compare adolescents who completed and dropped out of therapy, across the three treatment arms, for North London cases. There are interesting patterns when comparing session attendance for completers and dropouts in each of the treatment arms. Firstly, attendance of the first sessions did not seem to differ between the completers and dropouts; missed first appointments were surprisingly uncommon, in all three treatment arms. However, in the subsequent sessions, the difference was striking, as missed sessions were common in those who later dropped out, with the majority of dropouts missing more than 25% of their offered sessions. In contrast, missed sessions were less common for those who went on to complete therapy, with the majority of completers missing less than 25% of their offered sessions. While adolescents who completed therapy missed some sessions, these tended to be one offs and they typically attended several sessions in between missed sessions. In contrast, for dropouts, unattended sessions were a persistent problem throughout the course of therapy, typically from early in treatment.

Table 3. Percentage of sessions attended by participants, based on number of intended sessions according to the treatment manuals and number of offered sessions

		BPI (12 sessions)			CBT (20 sessions)			STPP (28 sessions)		
		Dropouts	Completers		Dropouts	Completers		Dropouts	Completers	
		N (%)	N (%)		N (%)	N (%)		N (%)	N (%)	
% of intended sessions attended	<25%	22 (41%)	12 (14%)		30 (61%)	9 (11%)		40 (61%)	4 (6%)	
	26-50%	21 (39%)	16 (19%)		12 (25%)	24 (28%)		22 (33%)	10 (15%)	
	51-75%	9 (16%)	13 (15%)		4 (8%)	24 (28%)		3 (5%)	15 (22%)	
	>76%	1 (2%)	44 (52%)		2 (4%)	27 (31%)		1 (1%)	37 (57%)	
	Missing	1 (2%)	0 (0%)		1 (2%)	2 (2%)		0 (0%)	0 (0%)	
	Total	54 (100%)	85 (100%)		49 (100%)	86 (100%)		66 (100%)	66 (100%)	
% of offered sessions attended	<25%	7 (13%)	0 (0%)		5 (10%)	2 (2%)		7 (11%)	0 (0%)	
	26-50%	21 (39%)	7 (8%)		21 (43%)	6 (7%)		28 (42%)	4 (6%)	
	51-75%	15 (27%)	26 (31%)		12 (25%)	16 (19%)		21 (32%)	18 (27%)	
	>76%	10 (19%)	52 (61%)		10 (20%)	60 (70%)		10 (15%)	44 (67%)	
	Missing	1 (2%)	0 (0%)		1 (2%)	2 (2%)		0 (0%)	0 (0%)	
	Total	54 (100%)	85 (100%)		49 (100%)	86 (100%)		66 (100%)	66 (100%)	

Figures based on full IMPACT sample (N = 402), excluding non-starters (N = 47) and those with missing data (N = 4). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

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Figure 6. Pattern of session attendance for participants who completed and dropped out of Brief Psychosocial Intervention (BPI)

Maximum intended number of BPI sessions = 12, shown by vertical line. Rows represent session attendance for each BPI case in North London (N = 42). DNA = Did Not Attend.

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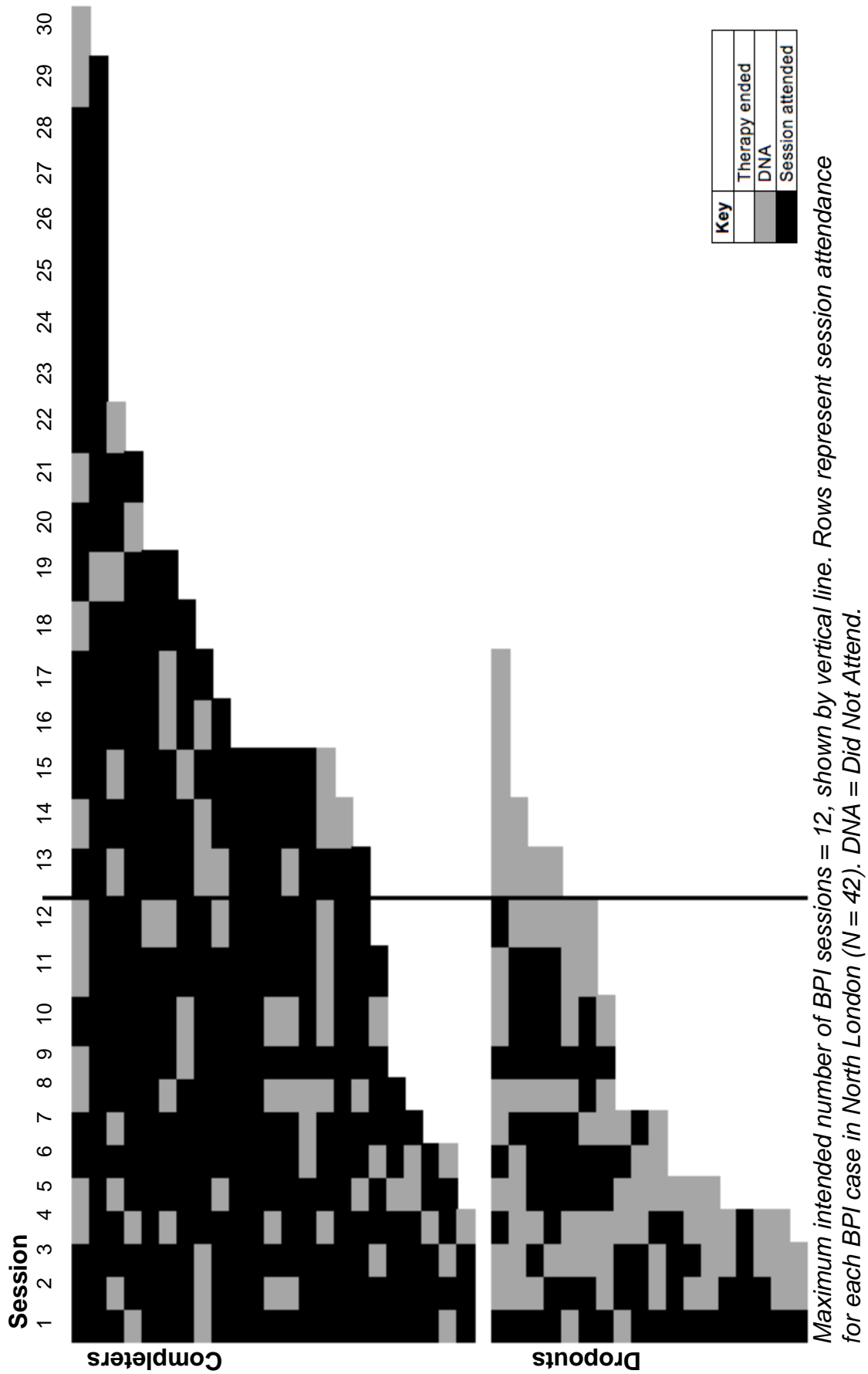
Figure 7. Patterns of session attendance for participants who completed and dropped out of Cognitive Behavioural Therapy (CBT)

Maximum intended number of CBT sessions = 20, shown by vertical line. Rows represent session attendance for each CBT case in North London (N = 39). DNA = Did Not Attend.
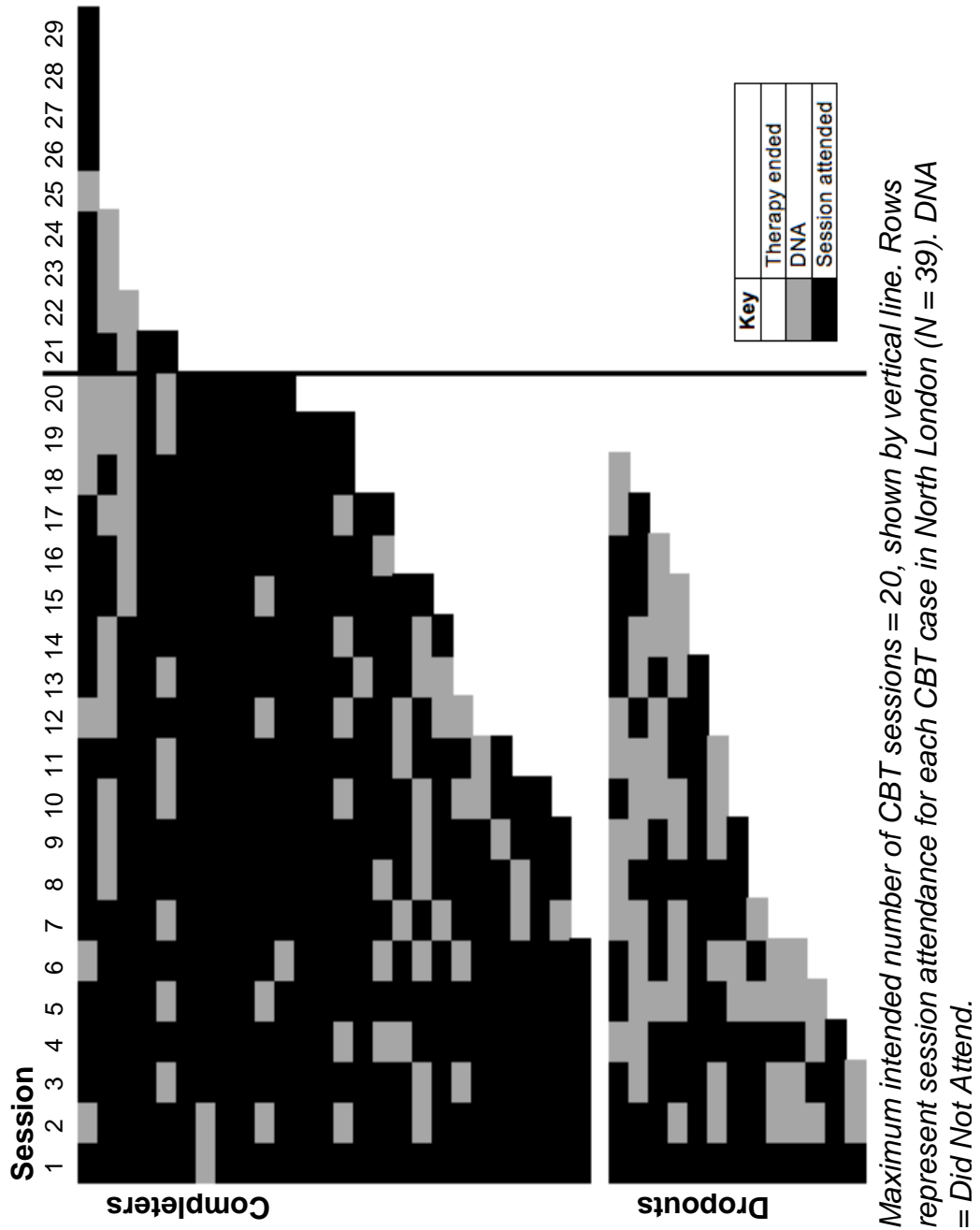
Figure 8. Patterns of session attendance for participants who completed and dropped out of Short Term Psychoanalytic Psychotherapy (STPP)

Maximum intended number of STPP sessions = 28, shown by vertical line. Rows represent session attendance for each STPP case in North London (N = 39). DNA = Did Not Attend.
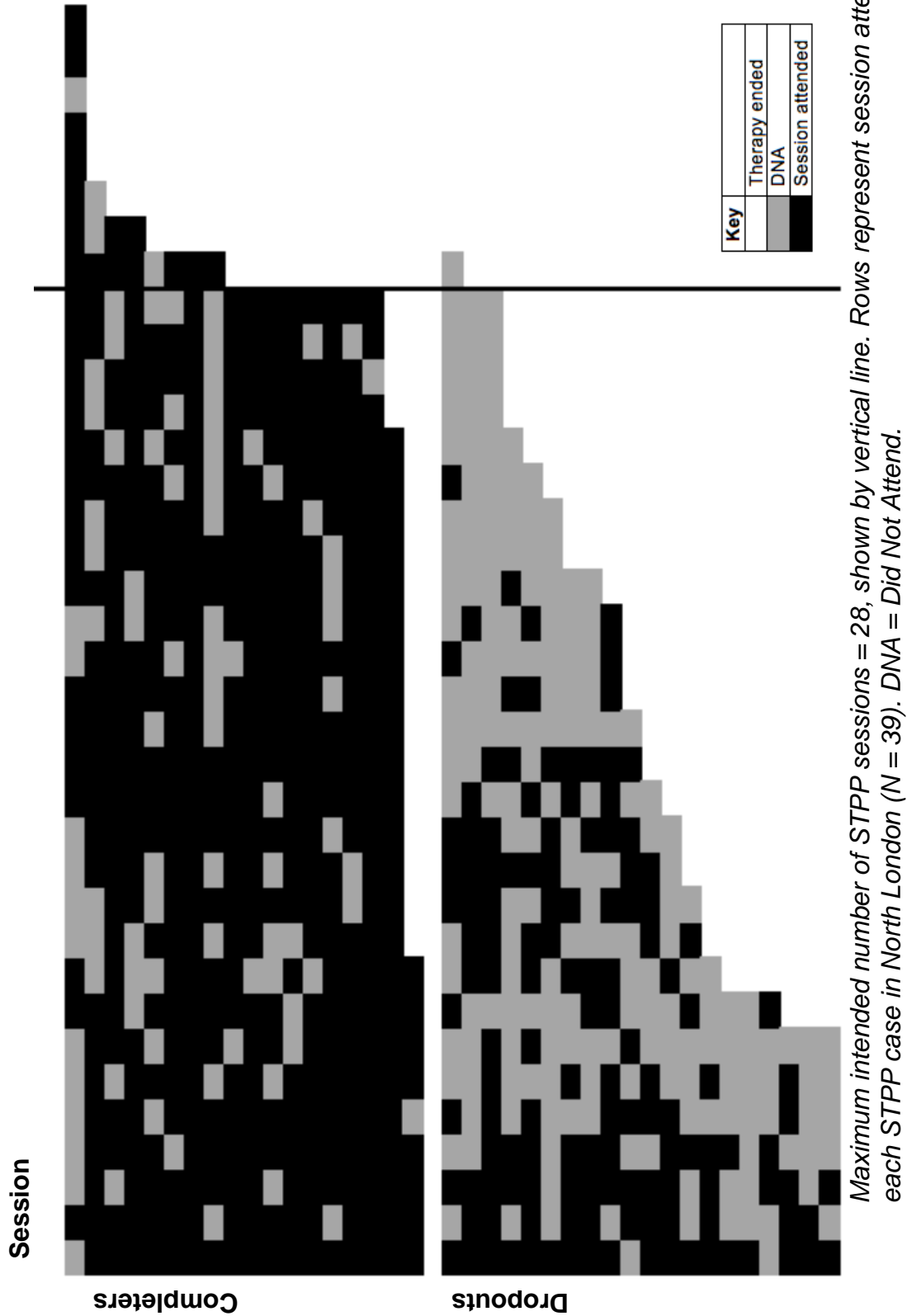
The pattern of missed sessions for the dropout cases from the early part of treatment raised the question of how early in treatment non-attendance could predict dropout. A series of logistic regression analyses were run, with the aim of identifying by which session the number of missed sessions could predict dropout. Dropout status was the dependent variable, and the independent variable in the first model was whether the first session was missed, and the independent variables for the other models were the number of missed sessions up to and including the second offered session (Model 2) through to the sixth offered session (Model 6). Treatment arm was controlled for in all models. If a participant had already dropped out by that session, they were excluded from the analysis. It was attempted to include therapist effects in the models, with participants (level 1) nested within therapists (level 2). However, the models failed to estimate therapist effects, which is likely to be due to having too many therapists with a single case, so therapist effects were excluded from the models. Table 4 presents the model estimates.

To identify the best fitting model, the models were examined to see which was able to correctly classify the most dropouts and completers. Cases were predicted to be dropouts if their model-based probability of dropping out was 0.5 or higher. The classification table can be seen in Table 5. While classification of completers was good in all models (ranging from 73-89% of completers being correctly classified), there was variation in how well the models correctly classified dropouts. The model that classified dropouts with the best sensitivity was Model 4. Although there were models with greater specificity (i.e. that were better at correctly classifying completers), the model was selected based on the best sensitivity. This decision was made as this model was best at correctly classifying dropouts, and for client care, failure to detect a case where the risk of dropout is high could mean that the potential to intervene to prevent dropout would be missed. Therefore Model 4 was considered to be the best fitting model, revealing that the number of missed sessions by the fourth session was able to correctly classify 65% of dropouts and 80% of completers. The odds ratio from the logistic

regression (Table 4) shows that for every missed session by the fourth session, the odds of dropping out were estimated to increase by 2.89.

Table 4. Logistic regression models predicting dropout, with the number of missed sessions between 1-6 as the independent variables, controlling for treatment arm

Variables	β	SE	Odds Ratio	95% CI for Odds Radio
Model 1 (*N* = 119)				
Missed sessions by session 1	-0.09	0.71	0.92	0.23: 3.68
Model 2 (*N* = 118)				
Missed sessions by session 2	1.14*	0.38	3.12	1.48: 6.60
Model 3 (*N* = 118)				
Missed sessions by session 3	1.04**	0.27	2.88	1.69: 4.92
Model 4 (*N* = 116)				
Missed sessions by session 4	1.06**	0.24	2.89	1.80: 4.66
Model 5 (*N* = 110)				
Missed sessions by session 5	1.33**	0.27	3.77	2.24: 6.33
Model 6 (*N* = 106)				
Missed sessions by session 6	1.05**	0.22	2.85	1.85: 4.39

* < 0.005, ** < 0.001. Models based on North London cases only. The number of cases varies in each model as cases were excluded from the model if they had already dropped out by the session being tested in the model.

Table 5. Classification results from the logistic regression models predicting dropout, with the number of missed sessions between sessions 1-6 as the independent variables

	Log likelihood	Cases correctly classified		
		Completers	Dropouts	Total
Model 1	-80.03	73%	39%	58%
Model 2	-74.38	79%	53%	68%
Model 3	-70.51	87%	45%	69%
Model 4	-65.49	80%	65%	74%
Model 5	-52.26	89%	57%	76%
Model 6	-49.76	89%	60%	78%

Model based on North London cases only.

Figures 6-8 also show that dropout was frequently preceded by a series of missed sessions, whereas the majority of adolescents who completed therapy did attend their final session. It was striking that STPP (Figure 8) therapists tended to keep offering sessions for longer than BPI (Figure 6) and CBT (Figure 7) therapists, who tended to stop offering more sessions after two or three missed sessions.

4.3.4 Predictors of dropout

Predictors of dropout were examined. Descriptive statistics for demographic factors are shown in Table 6.

Table 6. Demographic statistics for participants

	Dropouts N = 169 N (%)	Completers N = 237 N (%)
Age at baseline (years)		
11-13	18 (30%)	43 (70%)
14	30 (40%)	46 (60%)
15	43 (41%)	62 (59%)
16	40 (48%)	44 (52%)
17	38 (48%)	42 (52%)
Sex		
Female	131 (43%)	172 (57%)
Male	38 (37%)	65 (63%)
Ethnicity		
White	129 (39%)	200 (61%)
Black	8 (57%)	6 (43%)
Mixed	14 (48%)	15 (52%)
Asian	3 (33%)	6 (67%)
Any other ethnic background	6 (60%)	4 (40%)
Missing	9 (60%)	6 (40%)

Table 7 shows the descriptive statistics for variables to be tested as predictors of dropout, which includes measures of adolescent symptom severity, intelligence, parental wellbeing, parenting styles and therapeutic alliance.

Table 7. Descriptive statistics for independent variables for dropouts and completers

Measure	Dropouts N = 169 M (SD)	Completers N = 237 M (SD)
Depression severity (MFQ)	45.54 (10.27)	45.79 (10.56)
Anxiety severity (RCMAS)	41.14 (7.35)	40.80 (6.76)
Obsessionality (LOI)	10.16 (5.20)	9.83 (5.28)
Antisocial behaviour severity (ABQ)	3.69 (3.36)	2.92 (2.93)
Psychosocial functioning (HoNOSCA)	18.93 (5.79)	18.14 (6.25)
Risk taking (RTSHIA)	6.82 (5.25)	5.42 (4.74)
Self harm (RTSHIA)	14.72 (10.97)	13.92 (10.33)
Verbal intelligence (WASI)	43.22 (11.91)	48.48 (11.84)
Poor supervision (APQ)	7.72 (3.09)	6.72 (2.72)
Inconsistent discipline (APQ)	7.86 (3.00)	7.13 (2.69)
Positive parenting (APQ)	9.02 (3.35)	10.02 (2.97)
Parental wellbeing (GSI; SCL-90)	0.92 (0.78)	0.74 (0.63)
Therapeutic alliance (WAI)	47.89 (14.68)	55.68 (12.12)

MFQ (Mood and Feelings Questionnaire); RCMAS (Revised Children's Manifest Anxiety Scale); LOI (Leyton Obsessional Inventory); ABQ (Antisocial Behaviours Questionnaire); HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); RTSHIA (Risk Taking and Self Harm Inventory); WASI (Wechsler Abbreviated Scale of Intelligence); APQ (Alabama Parenting Questionnaire); GSI (Global Symptom Index); SCL-90 (Symptoms Checklist-90); WAI (Working Alliance Inventory).

Analyses were conducted using mixed effect logistic regression to determine which variables, when taken together, made significant independent contributions to the prediction of dropout. Analyses used the imputed datasets. The models accounted for therapist random effects with participants (level 1) nested within therapists (level 2). Where a participant's therapist was unknown ($N = 22$), they were treated in the analysis as their therapists' only case.

The effects of risk factors on dropout were estimated using a series of logistic regression models. The predictor variables fell into four groups: demographic factors, child factors, family factors and treatment factors. The first model examined demographic factors as predictors of dropout. Age, sex and ethnicity were entered as predictor variables, with dropout status as the dependent variable. Ethnicity was coded as a dummy variable (white versus any other ethnic group). Odds ratios greater than one indicated an increased likelihood of dropout, and odds ratios below one indicated a decreased likelihood of dropout. Table 8 displays the model statistics. In the logistic regression model (Model 1; Table 8), age was a significant predictor of dropout, with older adolescents being more likely to drop out. Ethnicity and sex were not significant predictors of dropout.

In the second model, child factors were added to Model 1, to test whether child symptoms, psychosocial functioning and intelligence predicted dropout. Child factors were not significant predictors of dropout (depression severity, anxiety severity, obsessionality, psychosocial functioning, risk taking, self-harm, and comorbidity). Antisocial behaviour ($p = 0.08$) and verbal intelligence ($p = 0.07$) trended towards significance as predictors of dropout (Model 2; Table 8).

In the third model, family factors were added to Model 2. Parental wellbeing and parenting styles were not significant predictors of dropout (Model 3; Table 8).

In the fourth model, therapeutic alliance was added Model 3 (Model 4; Table 8). Therapeutic alliance reported by adolescents at six-weeks was found to be a significant predictor of dropout, with poorer therapeutic alliance scores being associated with increased risk of dropout. Verbal intelligence was also found to be a significant predictor of dropout in Model 4, with lower scores of intelligence being associated with increased risk of dropout.

In the final model, predictors were retained that were found to be statistically significant at the 5% level in Models 1-4. Antisocial behaviour was also considered for inclusion as it approached significance in the previous models. Therefore the final model tested age, antisocial

behaviour, verbal intelligence and therapeutic alliance as predictors of dropout, controlling for treatment arm and region. In the final model (see Model 5; Table 9), age was a significant predictor of dropout (OR = 1.23, 95% CI: 1.05 to 1.44), indicating that for each year increase in age, the odds of dropout were estimated to increase by 23%. Antisocial behaviour was a significant predictor of dropout (OR = 1.29, 95% CI: 1.03 to 1.63), with each SD increase in antisocial behaviour scores being estimated to increase the odds of dropout by 29%. Verbal intelligence was a significant predictor of dropout, with each SD increase in verbal intelligence being estimated to reduce the odds of dropout by 30% (OR = 0.70, 95% CI: 0.48 to 1.00). Therapeutic alliance was also a significant predictor of dropout (OR = 0.61, 95% CI: 0.44 to 0.84), with each SD increase in therapeutic alliance being estimated to reduce the odds of dropout by 39%. The therapist intraclass correlation was negligible (<0.001), so no evidence for therapist effects was found.

Akaike's Information Criterion (AIC) was used to assess which was the best fitting model for the data. The AIC was compared for the five models, on each of the 20 imputed datasets (Appendix 28). The model with the smallest AIC for each dataset was selected as the best fitting model. Model 5 was the best fitting model in all 20 of the datasets and was therefore selected as the best fitting model for the data.

Table 8. Logistic regression models predicting dropout, controlling for treatment arm and region, with BPI coded as the reference group

Model	1 (Demographics)			2 (+ Child Factors)			3 (+ Family Factors)			4 (+ Treatment Factors)		
	β	SE	OR	β	SE	OR	β	SE	OR	β	SE	OR
(constant)	-2.83	1.20		-2.74	1.37		-2.63	1.42		-2.91	1.50	
Therapy type (reference: BPI)												
CBT	-0.15	0.27	0.87	-0.07	0.28	0.93	-0.09	0.29	0.92	0.02	0.31	1.02
STPP	0.51	0.27	1.66	0.61*	0.28	1.84	0.58*	0.28	1.78	0.27	0.31	1.31
Region (reference: North West)												
North London	-0.54	0.28	0.58	-0.48	0.31	0.62	-0.46	0.32	0.63	-0.39	0.34	0.68
East Anglia	-1.08****	0.26	0.34	-1.06****	0.30	0.35	-1.02****	0.30	0.36	-1.02***	0.32	0.36
Age (years)	0.18*	0.08	1.19	0.16	0.09	1.17	0.15	0.09	1.16	0.17	0.10	1.19
Female	0.21	0.25	1.23	0.26	0.28	1.30	0.27	0.29	1.31	0.19	0.29	1.21
Ethnicity	0.15	0.28	1.16	0.17	0.30	1.19	0.20	0.31	1.22	0.13	0.33	1.14
Depression (MFQ)				-0.24	0.17	0.79	-0.22	0.17	0.80	-0.27	0.17	0.76
Anxiety (RCMAS)				0.09	0.15	1.10	0.10	0.15	1.11	0.14	0.16	1.15
Obsessive-compulsive (LOI)				0.08	0.14	1.09	0.03	0.15	1.03	0.10	0.16	1.11
Antisocial behaviour (ABQ)				0.20	0.14	1.22	0.20	0.14	1.22	0.15	0.15	1.17
Comorbidity				0.06	0.12	1.06	0.05	0.13	1.05	-0.02	0.14	0.99
General wellbeing (HoNOSCA)				0.13	0.13	1.14	0.12	0.13	1.13	0.13	0.15	1.14
Risk taking (RTSHIA)				0.16	0.15	1.17	0.07	0.17	1.07	0.10	0.18	1.10
Self-harm (RTSHIA)				0.12	0.14	1.12	0.10	0.15	1.11	0.03	0.16	1.03
Verbal intelligence (WASI)				-0.35	0.19	0.71	-0.38	0.20	0.69	-0.42	0.21	0.66
Parental wellbeing (GSI; SCL-90)							0.24	0.16	1.27	0.24	0.16	1.27
Poor supervision (APQ)							0.14	0.17	1.15	0.16	0.19	1.17
Inconsistent discipline (APQ)							0.13	0.18	1.14	0.14	0.19	1.16
Positive parenting (APQ)							-0.11	0.16	0.89	-0.01	0.18	0.99
Therapeutic alliance (WAI)										-0.55**	0.20	0.58
Therapist Intraclass Correlation	0.015			0.006			0.004			0.001		

N = 406; * <0.05, ** < 0.01, *** < 0.005, **** <0.001. BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); MFQ (Mood and Feelings Questionnaire); RCMAS (Revised Children's Manifest Anxiety Scale); LOI (Leyton Obsessional Inventory); ABQ (Antisocial Behaviours Questionnaire); HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); RTSHIA (Risk Taking and Self Harm Inventory); WASI (Wechsler Abbreviated Scale of Intelligence); GSI (Global Symptom Index); SCL-90 (Symptoms Checklist-90); APQ (Alabama Parenting Questionnaire); WAI (Working Alliance Inventory). All numeric predictors except for age were standardised.

Table 9. Model 5: Final selected logistic regression model predicting dropout, controlling for treatment arm and region, with BPI coded as the reference group

Variable	β	SE	OR	95% CI for OR
(constant)	-3.31	1.30		
Therapy type (ref: BPI)				
CBT	0.02	0.28	1.02	0.59 - 1.78
STPP	0.31	0.29	1.36	0.77 - 2.39
Region (ref: North West)				
North London	-0.35	0.29	0.71	0.40 - 1.25
East Anglia	-0.95***	0.29	0.39	0.22 - 0.68
Age (years)	0.21*	0.08	1.23	1.05 - 1.44
Antisocial behaviour (ABQ)	0.26*	0.12	1.29	1.03 - 1.63
Verbal intelligence (WASI)	-0.36*	0.18	0.70	0.48 - 1.00
Therapeutic alliance (WAI)	-0.50***	0.16	0.61	0.44 - 0.84
Therapist Intraclass Correlation	0.0004			

*N = 406; * <0.05, ** < 0.01, *** < 0.005. BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); ABQ (Antisocial Behaviours Questionnaire); WASI (Wechsler Abbreviated Scale of Intelligence); WAI (Working Alliance Inventory), completed by the adolescent at six-week assessment. All numeric predictors except for age were standardised.*

4.4   Discussion

The study had two aims: firstly, to examine patterns of dropout; secondly, to investigate whether dropout could be predicted from a range of child, family and treatment factors.

4.4.1 Patterns of dropout

The overall dropout rate in this study was 37%, with a further 10% not starting therapy. This dropout rate is in line with dropout rates reported in

the literature for children and young people receiving mental health treatment (de Haan et al., 2013).

The dropout rate in STPP was somewhat higher (43%) compared with CBT (32%) and BPI (36%), although the dropout rates were not found to be significantly different between the three treatment arms. Surprisingly few studies have reported dropout rates from CBT. One study reported the dropout rate from CBT in a sample of anxious youths to be 23% (Kendall & Sugarman, 1997), which was somewhat lower than the dropout rate from CBT in the present study (32%). It is possible that young people with depression are more likely to drop out of therapy than those with anxiety disorders, yet further research is needed to fully understand the impact of different disorders on the risk of dropout. The dropout rate from STPP in this study (43%) was considerably lower than the only known studies to report dropout rates from psychoanalytic psychotherapy with young people, which found dropout rates between 59-69% in large clinic samples (Baruch, Gerber, & Fearon, 1998; Baruch et al., 2009). These studies had heterogeneous samples of young people with a range of problems, and they considered dropout to be when treatment ended prior to 21 sessions, which is a high threshold for treatment completion. This may explain the higher dropout rates in these samples compared to that of the current sample.

The slight difference in dropout rates between the treatment arms may reflect a range of different factors, including the length of treatment and what therapists from each modality consider to be a completed treatment. In exploring the patterns of therapy attendance between the three treatment arms, it became apparent that how therapists classified dropout varied between the treatment modalities, which is likely to reflect differences in the treatment manuals. The CBT manual stated that adolescents would be offered *up to* 20 sessions, and it was found that many participants received considerably less than the maximum intended 20 CBT sessions (IMPACT Study CBT Sub-Group, 2010). This suggests that CBT therapists were more likely to agree to therapy ending earlier than the 20 sessions they were able to offer. For example, if an adolescent had made sufficient improvements they may have agreed to

end therapy before 20 sessions had been completed. In contrast, in STPP, the majority of completers ended therapy at the intended 28 sessions, or close to this. The STPP manual specifies the length of therapy as 28 sessions at the outset (Cregeen et al., 2016), so there was not the idea that STPP would end prior to 28 sessions. Reduction in depressive symptoms would not be reason to end STPP early, as the rationale for ending or continuing therapy is not so closely aligned with symptom remission as it is in the CBT treatment manual. The slightly higher dropout rate in STPP may reflect that therapists would be more likely to classify a treatment as having ended prematurely if it ended before the pre-determined 28 sessions, even if improvements in the adolescents depressive symptoms had already taken place; whereas in CBT, the therapists were more likely to agree to end before the 20 sessions were completed, if it was felt that sufficient progress had already been made. In the BPI arm, it appeared that the therapists were flexible in how many sessions they offered as a significant minority of cases went far beyond the prescribed number of sessions in the manual. These findings highlighted that differences in dropout rates varied across the treatment modalities, and therefore comparing dropout rates between different modalities should be considered with caution, as they are likely to say as much about what therapists from a specific modality consider to be a completed treatment as they do about the likelihood of a client group dropping out of a specific type of treatment. This is especially important when the definition of dropout is dependent on the therapists' judgement.

This study also found dropout rates differed between the three regions that this study was conducted in: two of which were urban, densely populated areas (North London and the North West of England), and one of which was a largely rural area (East Anglia). The dropout rates were lowest in East Anglia, whereas the dropout rates were more similar across the urban regions. It is possible that the difference in dropout rates reflect regional differences. This study was unable to explain these regional differences, as key baseline characteristics (including age, sex and symptom severity) did not appear to differ between the regions. It is possible the differences in dropout rates across

regions resulted from demographic differences that were not measured in this study, or alternatively, due to local differences at the clinic level. The present study was unable to explain these differences, but future research should consider how dropout might differ across different populations and settings.

This is the first known study to carry out an in-depth exploration of patterns of attendance in the lead up to dropout. Two known studies in samples of young people with conduct problems previously found that cancelled and missed sessions were predictive of dropout (Kazdin & Wassell, 1998; Prinz & Miller, 1994), and the present study suggests that this finding extends to adolescents with depression. Moreover, this study is the first known study to focus on early session attendance, and found that each missed session within the first four increased the risk of dropout threefold. This is an important finding, as it suggests that disengagement can potentially be detected early in treatment.

4.4.2 Predictors of dropout

The second aim of this study was to examine whether treatment dropout in a sample of depressed adolescents receiving therapy could be predicted. This was the first known study to examine predictors of dropout in adolescents receiving therapy for depression. It was surprising that this study found few pre-treatment predictors of dropout, given that previous studies have found a range of demographic, symptom and family factors to be predictive of dropout (de Haan et al., 2013), suggesting that many of these findings may not extend to an adolescent population receiving therapy for depression. The only significant predictors of dropout were age, antisocial behaviour, scores of verbal intelligence and therapeutic alliance.

The hypothesis that older adolescents would be more likely to drop out of therapy was supported, as age was a significant predictor of dropout, with each year increase in age estimated to increase the odds of dropout by 24%. This finding is in line with previous findings (Baruch et al., 2009; Holmes, 1983; Mendenhall et al., 2014; Pelkonen et al., 2000). Key developmental milestones for adolescence include becoming more

autonomous and dependence on adult figures shifting towards their peer group and social world. Therapy may conflict with the adolescent need for autonomy (Block & Greeno, 2011; Oetzel & Scherer, 2003), and may explain the increased risk of dropout over the course of adolescence. It is important to consider how therapy can be adapted to fit with the developmental needs of adolescents. Older adolescents would tend to have more say in whether they want to attend their sessions or continue with therapy, compared with younger adolescents, whose parents will often be more actively involved in the treatment. This may in part explain the increase in risk of dropout with age.

The hypothesis that antisocial behaviour would predict dropout was supported, with each SD increase on the ABQ estimated to increase the odds of dropout by 29%. The ABQ is a checklist for DSM-IV criteria (American Psychiatric Association, 1994) for conduct disorder, with scores ranging from 0-22. Scores on the ABQ were generally low. The mean ABQ scores for completers and dropouts were relatively similar (2.93 vs. 3.69), reflecting that a modest increase in scores of antisocial behaviour significantly increased the odds of dropout. Adolescents with higher antisocial behaviour may have found therapy less tolerable and therefore dropped out, which raises questions about how adolescents with behavioural problems can be better engaged in treatment.

The hypothesis that lower scores of verbal intelligence would predict dropout was supported, as each SD increase in scores of verbal intelligence was estimated to reduce the odds of dropout by 44%. This supports previous research in children with conduct disorder (Kazdin & Mazurick, 1994; Kazdin et al., 1993). The finding that adolescents with lower scores of intelligence are more likely to drop out of therapy suggests that clinicians should be particularly mindful of the needs and capacity of young people. It is possible that less talking focused treatment may be a viable alternative for those with lower scores of intelligence, such as medication. However, further research is needed to establish an evidence base for the optimal approach to treatment for such adolescents.

The therapeutic alliance measured at six weeks was also found to be predictive of dropout, with each SD increase in scores of alliance, as reported by the young person, being estimated to reduce to the odds of dropout by 41%. This finding reflects the adolescents' ratings of the relationship with their therapists in the early part of treatment were indicative of whether on not they would complete treatment. This finding supported the hypothesis and findings from the existing literature (Cordaro et al., 2012; de Haan et al., 2013). Each of the treatment manuals for the three treatments delivered in the IMPACT trial emphasised the importance of the therapeutic alliance (Cregeen et al., 2016; IMPACT Study CBT Sub-Group, 2010; Kelvin et al., 2010), and this study reinforces the importance of establishing a strong alliance early in treatment (Swift & Greenberg, 2015a), as failure to do so increases the risk of an adolescent dropping out of treatment.

The rest of the hypotheses in this study relating to child and family factors were not supported. The finding that dropout was unrelated to sex in this study was unsurprising, as there have been mixed findings in relation to sex and dropout (Armbruster & Fallon, 1994; Dierker et al., 2001; Gonzalez et al., 2011; Kazdin, 1990; Kazdin et al., 1993; Kendall & Sugarman, 1997; Luk et al., 2001; Pina et al., 2003).

The finding that ethnicity was not predictive of dropout contrasts with findings from previous studies (Armbruster & Schwab-Stone, 1994; de Haan et al., 2013, 2015; Gonzalez et al., 2011; Kazdin, 1996; Kazdin & Mazurick, 1994; Kazdin et al., 1995; Kendall & Sugarman, 1997; MacNaughton & Rodrigue, 2001; Mendenhall et al., 2014; Miller et al., 2008; Mirabito, 2001; Schneider et al., 2013; Viale-Val, Rosenthal, Curtiss, & Marohn, 1984). However, this finding should be considered with caution, as the descriptive data suggested a trend towards higher dropout rates in black and mixed ethnic groups, while white and Asian ethnic groups had lower dropout rates. As there were relatively few participants in each ethnic group, ethnic minority groups were collapsed into a single ethnic minority group. It is possible that the effect of ethnicity on dropout may have been masked as dropout may differ among different ethnic groups, as a recent study found that specific ethnic minority groups

differed in terms of the odds of dropout (de Haan et al., 2015). This limitation mirrors that of almost all previous studies examining the effect of ethnicity on dropout, as most studies have had a limited sample of adolescents representing different ethnic groups, which is unsurprising given that ethnic minority groups are less likely to seek help in the first place (Lavis, 2014). Thus, further work is required to examine how dropout differs across ethnic groups and cultures, as well as how ethnic match of the client and therapist is associated with dropout, in the context of treatment for adolescent depression.

Contrary to previous findings, symptom severity was not predictive of dropout. The only symptom that predicted dropout was antisocial behaviour. Severity of depression, anxiety, obsessionality, psychosocial functioning, risk taking, self-harm and comorbidity were not predictive of dropout in this sample. These findings suggest little about adolescents' clinical presentation prior to the start of treatment informs whether or not they will drop out of therapy. As noted by Chasson et al. (2008), it is possible that symptomology immediately prior to dropout may prove a better predictor of dropout. This study was unable to explore this, but with an increase in the use of session-by-session outcome monitoring in mental health services (Department of Health, 2011) it will be increasingly possible to examine how change in symptoms over the course of treatment predict dropout.

The hypothesis that parental wellbeing and parenting practices would be associated with dropout was not supported in this study. This contrasts with previous studies, which have found poorer parental wellbeing and negative parenting practices to predict dropout (Boggs et al., 2005; de Haan et al., 2013; Fernandez & Eyberg, 2009; Kazdin, 1990, 1996; Kazdin, Holland, & Crowley, 1997; Kazdin & Mazurick, 1994; Kazdin et al., 1993, 1995, Kazdin & Wassell, 1998, 2000; Nock & Kazdin, 2001; Venable & Thompson, 1998; Wergeland et al., 2015). While it was surprising that the present study did not support the findings from these previous studies, this may be explained by the sample in this study, which focused specifically on adolescents. Previous studies have often drawn on younger samples. It is possible that the influence of parents becomes

less significant with age. In childhood and early adolescence, parents are likely to be central to help seeking, practically supporting their child's treatment (such as scheduling appointments and arranging transportation to sessions), as well as being involved in aspects of the treatment itself. Older adolescents may need less practical assistance in attending treatment and parents may not be involved in the treatment at all, and therefore the influence of parental characteristics on child dropout may lessen over the course of adolescence.

In summary, the findings of this study indicate that there are some characteristics that appear to increase the risk of dropout, yet overall, few pre-treatment characteristics were predictive of dropout whereas the two treatment factors were significant predictors of dropout. This suggests that treatment factors may be a more promising line of enquiry for understanding dropout than trying to identify pre-treatment predictors of dropout.

4.4.3 Strengths and limitations

This study had several strengths, including being the first known study to focus on the study of dropout in adolescent depression; an important area for research given that this is the most common psychiatric disorder in this age group (Essau, 2005). This study also had the advantage of focusing on three distinct treatment modalities. Many previous studies have conducted research on heterogeneous clinic samples and have not focused on specific treatment modalities (e.g. de Haan, Boon, Vermeiren, Hoeve, & de Jong, 2015).

This study is one of the first to report patterns of session attendance prior to dropout. This addressed a neglected area in the literature, as little is known about when dropout occurs and how patterns of attendance are related to dropout. This study shows the potential benefit of collecting attendance data routinely, as by understanding *when* dropout happens, clinicians can be better informed about when the highest risk of dropout is and when interventions may be best placed for targeting risk of dropout. Therefore alongside moves towards session-by-session outcome monitoring (Department of Health, 2011),

simultaneously collecting session attendance data would provide the opportunity to uncover relationships between session attendance, clinical outcomes and dropout, to build on the exploratory findings in the present study.

The limitations of this study are that it was restricted to the use of the data collected in the IMPACT trial, where the focus was on clinical outcomes. It has previously been noted in the literature that many studies of dropout focus on "variables of convenience" (Nock & Ferriter, 2005, p. 153), which to some extent, this study has also done as this study was planned after data collection for the trial had been completed. Had the study been planned prior to the start of the IMPACT trial, other potential predictors of dropout could have been investigated, such as therapist factors (including sex, ethnicity and years of experience), adolescents' expectations of therapy and the Barriers to Treatment Participation Scale (BTPS), which has been found to be a promising predictor of dropout in children with conduct disorder (Kazdin, Holland, Crowley, et al., 1997).

It is important to note that in this study dropout was defined based on the adolescent ending therapy without the agreement of their therapist. This definition is based on the therapists' judgement, making it highly dependent on the therapists' own views about the appropriateness of the ending. Therapists' training and modality is likely to play a big part in what they consider as an appropriate ending, which may account for some of the differences found between the treatment arms. For example, the lowest dropout rate in CBT may reflect that CBT therapists were most likely to agree to end therapy early if the young person had made sufficient improvements, whereas the highest dropout rate in STPP may reflect that STPP therapists were less likely to agree to end therapy prior to the planned 28 sessions. As discussed in Chapter 1, this is the best available definition in the current literature, yet it is important to keep in mind the limitations of this definition, particularly when comparing findings across different treatment modalities.

Missing data was a substantial problem in this study. The missing data from two of the regions meant that some of the analyses were restricted to the North London sample only. It is not possible to generalise

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these findings to the full IMPACT sample, or to populations of adolescents with depression more generally. For the predictive models, missing data were assumed to be MAR and thus handled using multiple imputation. This approach was selected as it allowed the statistical analyses to be conducted on the full sample with all available data. This is regarded as the most robust approach to handling missing data, that reduces bias without reducing statistical power (Osman et al., 2018). However, it is not without its limitations. Data were assumed to be MAR, yet this assumption cannot be fully assessed and it is possible that other unobserved variables could have predicted missingness.

The planned analyses for this study set out to examine therapist effects on dropout. No therapist effects were found, yet this may be the result of there being too many therapists with a single case. The data in this study was not good enough to adequately investigate therapist effects on dropout, while previous research has found therapist effects to account for 12.6% of the variance in dropout (Saxon, Barkham, Foster, & Parry, 2016). It is also important to note that as these findings were in the context of a clinical trial, it is unknown how generalisable they are to routine clinical practice. However, this is an important starting point in the study of dropout in the context of adolescent depression, and future research should build on these findings to see how they apply to routine clinical practice.

4.4.4 Next step in this research

In line with previous research, the findings of this study suggest that dropout from therapy in adolescents with depression is a common occurrence, with 37% of adolescents dropping out of therapy in this study. This study found few characteristics that predict dropout in this sample of adolescents with depression. The next step for this research was to investigate the consequences of dropout. To do this, Study 2 compared the outcomes of completers and dropouts in the same sample as this study, to investigate whether treatment dropout was associated with poorer clinical outcomes.

5 Study 2: Prognostic implications of dropout in adolescents receiving therapy for depression

5.1 Introduction

Dropout was a common occurrence in the IMPACT sample, with 37% of adolescents dropping out of therapy, and a further 10% not taking up the therapy on offer as shown in Study 1. Those who dropped out of therapy tended to do so in the early part of treatment, and it therefore seemed unlikely that they would have received the benefits of therapy. The next step for this research was to investigate how dropout was associated with clinical outcomes.

Adults who complete therapy for depression have consistently been found to improve more than clients who drop out (Cahill et al., 2003; Persons, Burns, & Perloff, 1988; Saatsi et al., 2007). One study found that clients who dropped out of cognitive therapy for depression tended to remain in the severely depressed category based on scores on Beck's Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996), whereas completers' symptom severity reduced to the mildly depressed category (Saatsi et al., 2007). Another study found that 71% of adults who completed cognitive therapy for depression achieved clinically significant change, compared to 13% of those who dropped out of therapy (Cahill et al., 2003). Taken together, these studies reflect that adults who drop out of therapy for depression fare worse compared with those who complete therapy, although the causal nature of the relationship between dropout and outcomes is unknown. A limitation of these studies is they did not consider the longer-term implications of dropout.

Saatsi et al. (2007) found that clients who did not make gains early in therapy tended to drop out, which raises the question of whether clients drop out because therapy is not helping them, as opposed to them having poorer outcomes as a result of dropping out. We don't know if they would have improved, had they continued in therapy. It is possible that early gains in therapy motivate clients to continue in therapy, whereas if clients do not see a benefit early in treatment, they may not see the point in

continuing in therapy. This is consistent with the sudden gains literature, which has found that clients who do not make sudden gains in therapy often fail to make any gains throughout the course of treatment (Stiles et al., 2003). Furthermore, work by Lambert and colleagues, who have used session-by-session monitoring of outcomes, found that clients who made early gains in therapy maintained these gains in the long term (Haas, Hill, Lambert, & Morrell, 2002)

There is a dearth of knowledge about outcomes associated with dropout in adolescents receiving therapy for depression. However, in the literature on externalising disorders, children receiving treatment for behavioural disorders who complete therapy have been found to make greater gains than those who drop out of treatment (Boggs et al., 2005; Kazdin & Wassell, 1998; Lai et al., 1997). Research is needed to explore how clinical outcomes associated with dropout apply to adolescent depression.

5.1.1 Aim of Study 2

The aim of this study was to investigate whether those adolescents who dropped out of therapy had poorer clinical outcomes compared with those who completed therapy. In keeping with the main aim of the IMPACT trial, the focus was on the long-term clinical outcomes.

5.2 Method

5.2.1 Sample

This study draws on the same sample as Study 1 ($N = 406$), comprising the 237 participants who completed therapy and the 169 participants who dropped out of therapy in the IMPACT trial.

5.2.2 Data

Full details of data collection and all measures used in the IMPACT trial were outlined in Chapter 3. Data collected at baseline and each outcome assessment (at 6, 12, 36, 52 and 86 weeks) were used for the present study. Key outcome measures were selected as follows:

i. *Diagnosis of major depressive disorder*. The Kiddie–Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997).

ii. *Depression severity*. The Mood and Feelings Questionnaire (MFQ; Angold, Costello, Pickles, & Winder, 1987).

iii. *Overall symptoms and psychosocial functioning*. The Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA; Garralda, 2000).

iv. *Obsessionality*. The revised Leyton Obsessional Inventory (LOI; Bamber, Tamplin, Park, Kyte, & Goodyer, 2002).

v. *Anxiety severity*. The Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978).

5.2.3 Hypothesis

It was hypothesised that adolescents who dropped out of each treatment arm would have poorer clinical outcomes compared with those who completed treatment, on each of the outcome measures.

5.2.4 Data analysis

Data analyses were conducted in R V3.3.2 (R Core Team, 2016). For continuous outcome measures, multilevel modelling was used to examine whether dropouts and completers differed in their rate of change in each of the three treatment arms. Treatment arms, therapy ending and time were tested as predictors of outcomes for the continuous outcome variables (MFQ, HoNOSCA; LOI; RCMAS). Therapy ending was a dichotomous variable (0 = completed; 1 = dropped out). The models had a three level structure, with repeated measures (level 1) nested within participants (level 2) and participants nested within therapists (level 3). Where a participant's therapist was unknown ($N = 22$), they were treated as their therapists' only case. Participant random slopes were included in all models, to allow for variation in the rate of change between participants. In addition, factors that were known to differ between completers and dropouts were controlled for, as age and antisocial behaviour were found to be predictive of dropout in Study 1. Intelligence

was also found to be a significant predictor of dropout in Study 1, but due to the extent of missing data on this variable (54% missing data), intelligence was not included in the models, for two reasons. Firstly, it would have been necessary to impute the missing values using multiple imputation, which would have complicated the process of model comparison, and secondly, intelligence was not found to be associated with outcomes. Thus, it was deemed preferable to exclude intelligence from the analyses to allow for model comparison using likelihood ratio tests, which would not have been possible on imputed datasets.

The relationship between time and outcomes was not expected to be linear, as the descriptive data illustrated a steeper rate of change during treatment, which flattened off after the end of treatment. To account for the greater rate of change early in treatment, time was transformed into its natural logarithm[3], using the equation Log(Time + 1). This enabled the non-linear relationship between time and outcomes to be modeled using linear regression. The relationship between time and change in RCMAS scores appeared to be closer to linear than for the other outcome measures, and therefore log-transformation and square-root transformations of time were compared, and the square-root transformation yielded a better fit according to Akaike's Information Criterion (AIC; Akaike, 1973) and Bayesian Information Criterion (BIC; Schwarz, 1978), which are criteria for model quality that take into account both model fit and parsimony. Square-root transformation of time was therefore used for modeling outcomes on the RCMAS. In the presented models, the BPI Completers are coded as the reference group. The best fitting model was selected using likelihood ratio tests, the AIC and BIC, with a smaller AIC and BIC representing a better fitting model.

To investigate whether the risk of meeting diagnostic criteria for depression at 36, 52 and 86 weeks differed between dropouts and completers, in each treatment arm, mixed effect logistic regression analyses were used. All participants met diagnostic criteria for depression

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[3] Time squared and time cubed transformations were also considered, but the natural logarithm of time was found to be the most parsimonious and best fitting model for the data.

at baseline, and this lack of variability meant it was not possible to conduct longitudinal analyses as had been done with the continuous outcome measures. The primary interest for this study was to test whether dropout was associated with poorer clinical outcomes in the long term, and thus logistic regression analyses were used to test dropout as a predictor of depression at the long-term follow-up assessments. Mixed effect models were used to allow for therapist effects to be accounted for in the models, with participants (level 1) nested within therapists (level 2). The dependent variable was depression diagnosis (as measured by the K-SADS), and the predictor variables were interaction terms for Treatment Arm X Therapy Ending. The models were run with completers in each treatment arm coded as the reference group, to estimate the association between dropout and outcomes in each treatment arm. Age and antisocial behavior were controlled for in the models, to control for pre-treatment differences between completers and dropouts.

A limitation of the dropout definition used in this study was that it did not differentiate those who attended a significant proportion of their sessions prior to stopping treatment with those who dropped out early in treatment. To address this limitation, sensitivity analyses were conducted to consider different approaches to defining dropout, based on when dropout occurred. In the sensitivity analyses, dropout was defined as when the ending of treatment was not agreed with the therapist, and a) it was prior to the adolescent completing 50% of their planned sessions, and b) prior to the adolescent completing 75% of their planned sessions.

5.3   Results

5.3.1 Descriptive statistics

To explore whether dropout was associated with poorer clinical outcomes, descriptive statistics were examined, comparing outcomes for dropouts and completers in each of the three treatment arms. Outcomes at each time point for dropouts and completers, in each treatment arm, are presented in Table 10, and are plotted in Figures 9-13.

Figure 9 shows the trajectory of change in depression severity, as measured by the MFQ. Depression scores at baseline did not differ

between dropouts and completers in each treatment arm. Average depression scores reduced for all groups over the observed follow up period. In the CBT and STPP arms, depression scores had reduced more for those who completed treatment compared with those who had dropped out, at 36, 52 and 86 weeks. The trajectory of change appeared similar for dropouts and completers in the BPI arm.

Figure 10 shows the trajectory of change in psychosocial functioning, as measured by the HoNOSCA. Psychosocial functioning improved over time for all groups. The biggest improvements in psychosocial functioning were observed for participants who completed CBT and STPP. It was surprising that in the BPI group, psychosocial functioning actually improved for dropouts slightly more than for those who completed BPI.

Figure 11 shows the trajectory of change in obsessionality, as measured by the LOI. This shows that over time, average obsessionality scores reduced for all groups, with the greatest improvement observed for STPP completers by 86-weeks, while the BPI dropouts had improved the least.

Figure 12 shows the trajectory of change in anxiety severity, as measured by the RCMAS. This shows that over time, average anxiety scores reduced for all groups. The CBT and STPP completers had the biggest reduction in anxiety scores, with dropouts improving less. The trajectory of change was similar for completers and dropouts in the BPI arm.

Figure 13 shows the percentage of participants who still met diagnostic criteria for depression on the K-SADS at each time point, for dropouts and completers in each treatment arm. The figure shows that a lower proportion of participants who completed CBT and STPP still met diagnostic criteria for depression at each time point, compared with those who dropped out. The opposite was seen in the BPI arm, as a higher proportion of completers still met diagnostic criteria for depression than dropouts at 12, 36 and 86 weeks.

Table 10. Mean outcomes on each measure at each time point, for dropouts and completers in each treatment arm

Outcome	Weeks	BPI		CBT		STPP	
		Dropouts	Completers	Dropouts	Completers	Dropouts	Completers
Mood and Feelings Questionnaire (MFQ)	0 (N = 406)	46.53	46.28	45.49	46.18	44.77	44.66
	6 (N = 285)	39.02	36.26	38.43	33.40	34.05	37.35
	12 (N = 301)	35.76	34.66	38.06	29.27	32.82	34.60
	36 (N = 289)	26.66	32.20	27.50	23.40	30.89	23.80
	52 (N = 297)	25.96	24.94	30.57	22.61	25.80	21.33
	86 (N = 319)	22.53	24.32	26.31	19.60	24.68	18.27
Health of the Nation Outcomes Scales Child and Adolescent (HoNOSCA)	0 (N = 380)	19.89	18.48	19.00	17.62	18.09	18.38
	6 (N = 252)	15.50	14.51	15.28	13.47	14.13	15.01
	12 (N = 271)	17.46	13.16	14.28	11.10	12.11	13.36
	36 (N = 241)	11.94	11.69	9.81	9.70	12.26	8.99
	52 (N = 235)	8.78	9.95	12.09	7.62	10.41	7.15
	86 (N = 250)	7.72	8.48	9.01	6.36	8.35	7.54
Modified Leyton's Obsessional Inventory (LOI)	0 (N = 402)	11.07	9.45	10.15	11.08	9.40	8.68
	6 (N = 282)	9.32	7.32	8.50	6.79	7.43	7.97
	12 (N = 298)	7.97	6.37	7.83	6.21	7.13	7.52
	36 (N = 283)	6.54	6.02	5.50	4.28	5.90	4.65
	52 (N = 281)	7.19	5.00	5.28	4.83	5.07	4.61
	86 (N = 298)	5.79	4.75	5.39	4.54	4.20	3.46
Revised Children's Manifest Anxiety Scale (RCMAS)	0 (N = 405)	42.37	40.42	40.72	41.71	40.44	40.10
	6 (N = 283)	36.39	36.20	39.34	35.90	35.58	38.70
	12 (N = 299)	35.24	35.09	38.95	32.91	34.02	34.79
	36 (N = 285)	29.46	33.23	29.54	25.96	29.67	27.89
	52 (N = 285)	26.27	27.75	31.21	24.39	27.19	24.19
	86 (N = 301)	24.00	25.57	28.41	22.59	24.52	22.60
% meeting criteria for depression (K-SADS)	6 (N = 268)	78%	67%	74%	52%	64%	61%
	12 (N = 282)	52%	56%	65%	41%	57%	56%
	36 (N = 263)	22%	52%	36%	28%	49%	26%
	52 (N = 247)	32%	29%	54%	17%	31%	22%
	86 (N = 262)	15%	31%	37%	18%	19%	9%

BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

Figure 9. Mean MFQ scores at each time point for dropouts and completers, in each treatment arm
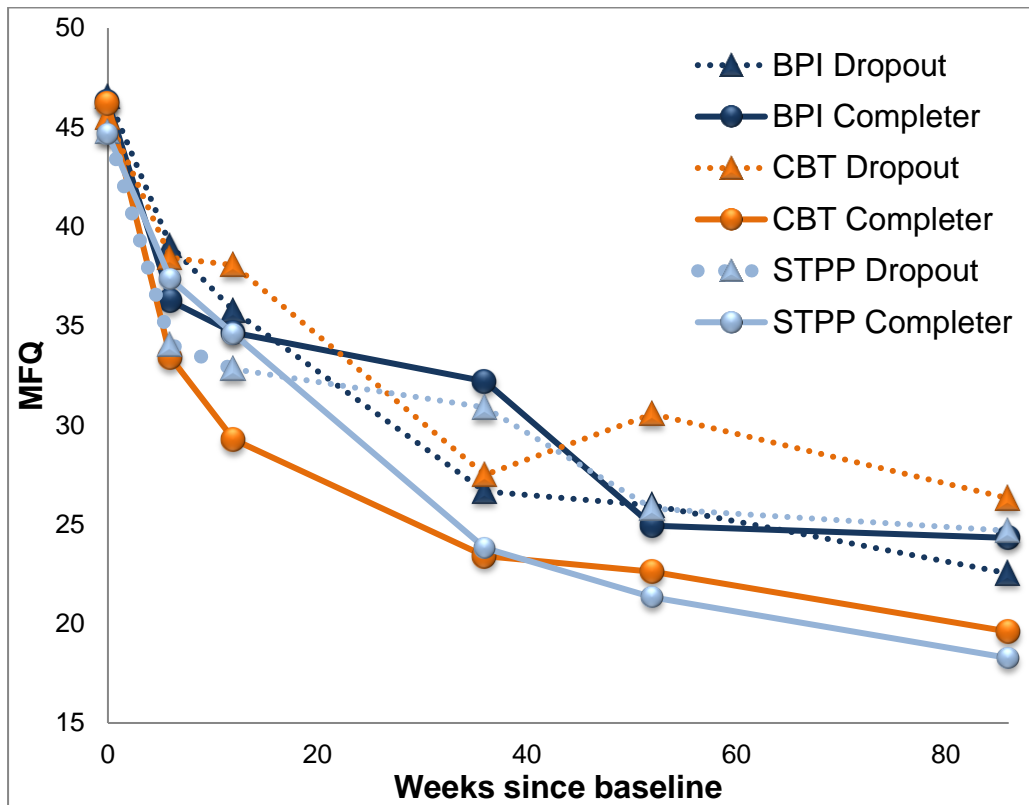
Means based on sample who completed measure at each time point (Baseline N = 406; 6 weeks N = 285; 12 weeks N = 301; 36 weeks N = 289; 52 weeks N = 297; 86 weeks N = 319). MFQ (Mood and Feelings Questionnaire); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

Figure 10. Mean HoNOSCA scores at each time point for dropouts and completers, in each treatment arm

Means based on sample who completed measure at each time point (Baseline N = 380; 6 weeks N = 252; 12 weeks N = 271; 36 weeks N = 241; 52 weeks N = 235; 86 weeks N = 250). HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

Figure 11. Mean LOI scores at each time point for dropouts and completers, in each treatment arm
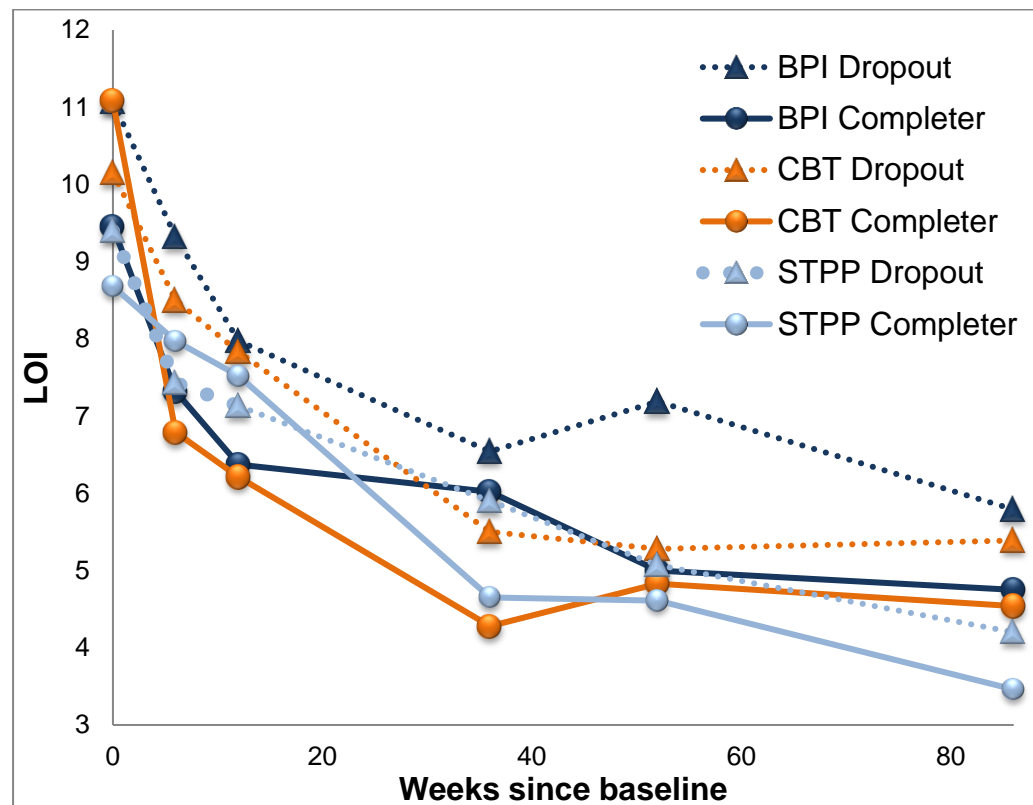
Means based on sample that completed measure at each time point (Baseline N = 402; 6 weeks N =282; 12 weeks N = 298; 36 weeks = 283; 52 weeks N = 281; 86 weeks N = 298). LOI (Modified Leyton's Obsessional Inventory); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

Figure 12. Mean RCMAS scores at each time point for dropouts and completers, in each treatment arm
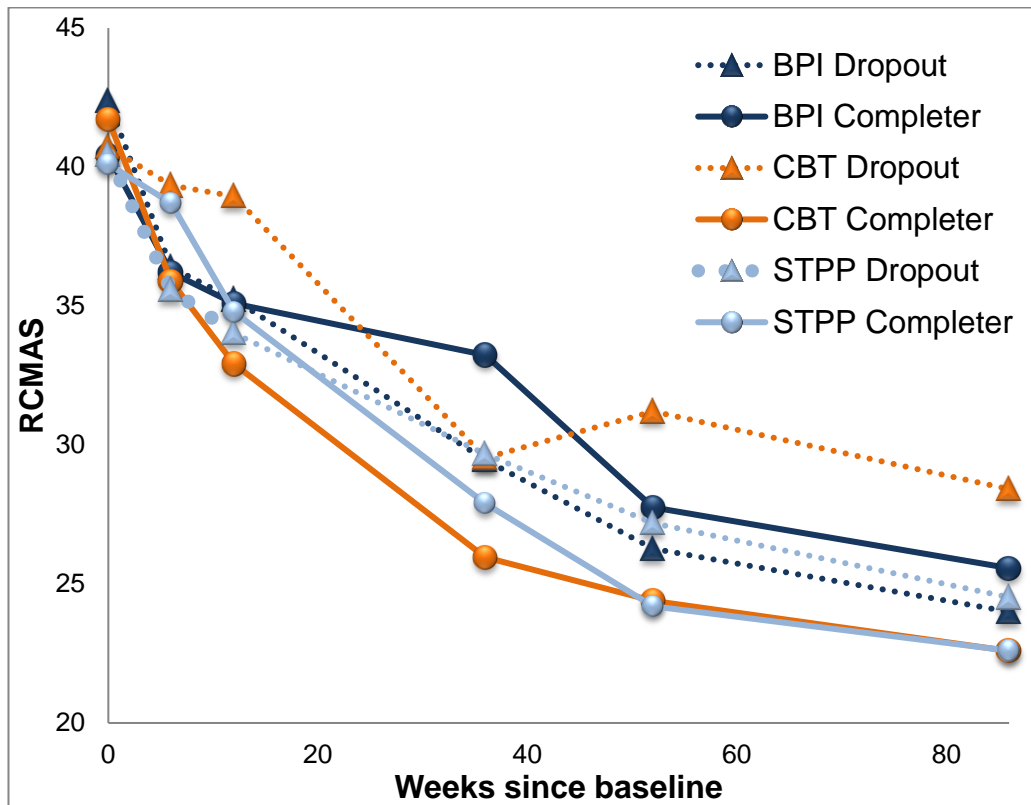
Means based on sample that completed measure at each time point (Baseline N = 405; 6 weeks N =283; 12 weeks N = 299; 36 weeks = 285; 52 weeks N = 285; 86 weeks N = 301). RCMAS (Revised Children's Manifest Anxiety Scale); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

Figure 13. The percentage of participants meeting diagnostic criteria for depression at each time point, for dropouts and completers in each treatment arm
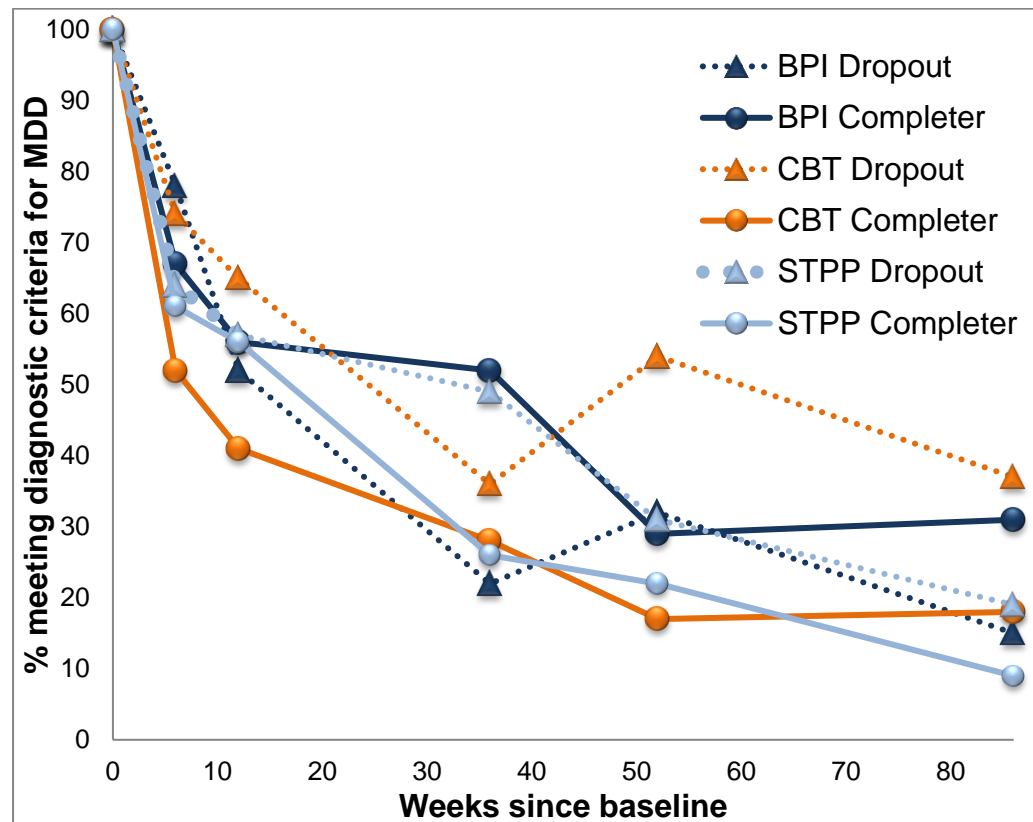
MDD = Major Depressive Disorder. Depression diagnosis according to the K-SADS. Based on sample who completed measure at each time point (Baseline N = 406; 6 weeks N = 268; 12 weeks N = 282; 36 weeks N = 263; 52 weeks N = 247; 86 weeks N = 262). BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

5.3.2 Statistical analyses

To model outcomes with regards to depression severity, Model 1 predicted the trajectory of change in MFQ scores with Time (Log(Time + 1)), Treatment Arms and Therapy Ending as the independent variables, with therapist, participant and slope random effects. This model assumed that the rate of change was the same for all groups. In Model 2, two-way interaction terms (Time X Treatment Arms and Time X Therapy Ending) were added to the model, which tested whether change was dependent

on therapy ending and treatment arm, without an interaction between therapy ending and treatment arm. This did not lead to an improvement in the fit of the model, according to the AIC, BIC and a likelihood ratio test. In Model 3, three-way interaction terms (Time X Treatment Arms X Therapy Ending) were then added to the model, to test whether there was an interaction between Time X Treatment Arm X Therapy Ending. This did not improve the fit of the model, based on the AIC, BIC and a likelihood ratio test (comparing Model 3 to Model 2). Therefore no evidence was found for an effect of dropout on depression severity outcomes, nor was there evidence for an effect of dropout on outcomes on depression severity varying by treatment arm. Figure 14 shows a plot to illustrate the fitted model, which shows the estimated slopes for completers and dropouts in each of the three treatment arms. The models are presented in Table 11.

Psychosocial functioning (HoNOSCA) and obsessionality (LOI) outcomes were modeled using the same strategy described above, and are shown in Tables 12 and 13. There was no indication that Model 2 and Model 3 improved the fit of the model, on either measure, based on the AIC, BIC and a likelihood ratio test. Thus, no evidence was found for an effect of dropout on psychosocial functioning and obsessionality outcomes, nor was there evidence for an effect of dropout on on these outcome measures varying by treatment arm.

Anxiety outcomes, measured by the RCMAS, were modeled using the same strategy as described above, but with time transformed to its square root. The models are presented in Table 14. There was no indication that Model 2 and Model 3 improved the fit of the model, based on the AIC, BIC and likelihood ratio tests. Thus, no evidence was found for an effect of dropout on anxiety outcomes, nor was there evidence for an effect of dropout varying by treatment arm.

Finally, it was investigated whether the risk of meeting diagnostic criteria for depression at the long-term follow-ups differed between dropouts and completers, in each of the three treatment arms. Mixed effect logistic regression analyses were used, testing the main effects of each treatment arm and interaction terms for Treatment Arm X Dropout

as predictors of depression at 36, 52 and 86 weeks. Therapist effects were included as random effects in the models. The model statistics are shown in Table 15. In order to compare the risk of meeting diagnostic criteria for depression for dropouts and completers within each treatment arm, the models were run with completers in each treatment arm coded as the reference group. This tested the effect of dropping out of each type of treatment, compared to those who completed that treatment, on depression diagnosis. At 36-weeks, those who dropped out of BPI were estimated to be 71% less likely to meet diagnostic criteria for depression compared with those who completed BPI (OR=0.29, CI 0.10: 0.82), showing evidence contrary to the hypothesis. This association was not maintained in the longer term, as the BPI X Dropout terms were not significant at 52 and 86-weeks. In the CBT and STPP arms, some evidence was found for an association between dropout and outcomes in the expected direction. At 36-weeks, those who dropped out of STPP were estimated to be 2.7 times more likely to meet diagnostic criteria for depression compared with those who completed STPP (OR=2.67, CI 1.11: 6.41). A longer-term association of dropout and depression diagnosis was not found in the STPP arm, as the STPP X Dropout terms were not significant at 52 and 86-weeks. In CBT, there was not a significant effect of dropout at 36-weeks on the odds of meeting diagnostic criteria for depression. However, at 52-weeks, dropping out of CBT was estimated to increase the odds of meeting diagnostic criteria for depression six-fold (OR=6.09, CI 2.05: 18.10). This difference was statistically significant, yet the confidence intervals were rather wide, indicating that this association could not be estimated with a great deal of precision, and therefore should be viewed with caution. This association between dropout and depression diagnosis was not maintained in the longer-term, at the 86-week follow-up. No evidence was found for therapist effects in any of the models.

Sensitivity analyses were conducted to test whether the conclusions were sensitive to how dropout was defined, whereby dropouts were re-classified as completers if they attended more than 50% and 75% of the planned sessions. The only result that changed in the

sensitivity analyses was that in the CBT arm, dropout became a significant predictor of depression diagnosis at 86-weeks, when dropout was defined as the adolescent attending less than 50% of the intended sessions and the ending was not agreed with the therapist. The results did not change on any of the other outcome measures. Overall, the results were considered robust regardless of whether the dropout definition took into account the proportion of intended sessions that the adolescents attended. The model estimates from the sensitivity analyses are presented in Appendices 29-30.

5.3.3 Exploratory analyses

The IMPACT trial was not designed to have sufficient power for the secondary analyses conducted here. It was possible that the findings presented above may have been due to inadequate power to detect an association between dropout and outcomes, overall or separately for the three treatments. It was therefore decided to present coefficient estimates from Model 2 and Model 3, as exploratory analyses to inform future studies, such as systematic reviews and meta-analyses.

Table 16 shows the estimated difference in depression severity between dropouts and completers in each treatment arm. The estimates of the association between dropout and outcome (not accounting for treatment arm) were derived from Model 2, and estimates for each treatment arm were derived from Model 3. In the BPI and STPP arms, dropout estimates showed little indication of an association of dropout with depression severity scores at 36, 52 and 86-weeks, as the 95% confidence intervals contained zero. In the CBT arm however, the confidence intervals did not contain zero and contained the value of five (considered to be an important difference on the MFQ; Goodyer et al., 2017a). This shows some weak evidence for an association between dropout and depression severity scores in the CBT arm, but should be viewed cautiously due to the exploratory nature of these analyses. The same pattern was observed for anxiety outcomes: the 95% confidence intervals for dropout estimates contained zero for the BPI and STPP arms at all time-points, but not for the CBT arm. This provides some indication

of a possible association between dropout and anxiety outcomes in the CBT arm, at 36, 52 and 86-weeks. For psychosocial functioning and obsessionality outcomes, the 95% confidence intervals for dropout estimates at all time points and all three treatment arms contained zero, thus providing no evidence for an association of dropout and outcomes on these measures.

Table 11. Multilevel models predicting MFQ outcomes, with participants and therapists included as random effects, participant random slopes and controlling for age and antisocial behaviour

	Variable	Model 1 β (SE)	Model 2 β (SE)	Model 3 β (SE)
Fixed effects	Constant	31.87 (5.48)	31.90 (5.51)	30.97 (5.52)
	Age	0.84* (0.35)	0.85* (0.35)	0.91** (0.35)
	Antisocial behaviour	0.43** (0.16)	0.43** (0.16)	0.44** (0.16)
	Log(Time + 1)	-7.30**** (0.30)	-7.41**** (0.56)	-6.86**** (0.63)
	Dropout	0.40 (1.03)	-0.39 (1.14)	-0.63 (1.97)
	Dropout X Log(Time + 1)		0.98 (0.62)	-0.67 (1.08)
	CBT	-1.03 (1.20)	-0.73 (1.34)	-1.34 (1.69)
	CBT X Log(Time + 1)		-0.38 (0.73)	-1.26 (0.89)
	CBT X Dropout			1.67 (2.80)
	CBT X Dropout X Log(Time + 1)			2.67 (1.53)
	STPP	-1.60 (1.21)	-1.27 (1.35)	-0.79 (1.81)
	STPP X Log(Time + 1)		-0.43 (0.74)	-1.27 (0.97)
	STPP X Dropout			-0.93 (2.75)
	STPP X Dropout X Log(Time + 1)			2.23 (1.50)
Random effects	Residual variance	76.82 (8.77)	76.85 (8.77)	76.91 (8.77)
	Participant variance	61.07 (7.82)	60.89 (7.80)	60.35 (7.77)
	Participant slopes	18.86 (4.34)	18.58 (4.31)	18.17 (4.26)
	Therapist variance	0.00 (0.00)	0.03 (0.17)	0.00 (0.00)
Model comparison	AIC	14269.16	14272.34	14274.33
	BIC	14317.11	14332.28	14350.26
	Likelihood ratio test		$\chi^2=2.82$, p=0.42	$\chi^2=6.01$, p=0.20

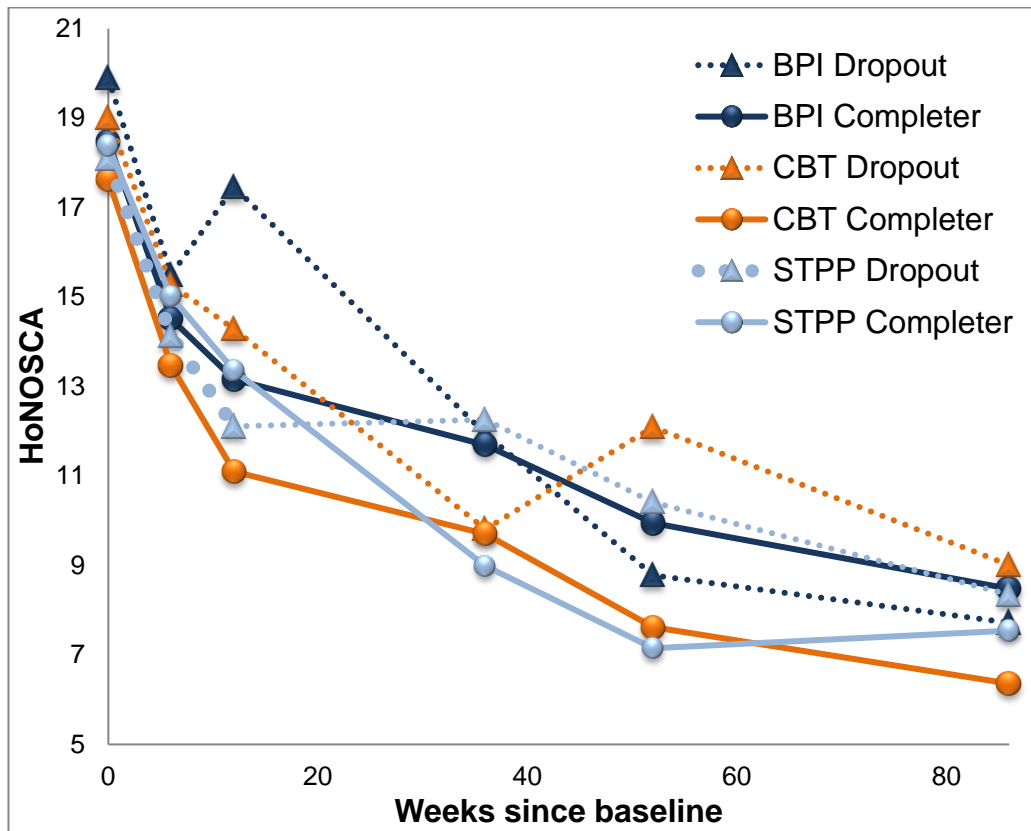*$p <0.05$; ** $p <0.01$; *** $p <0.005$; **** $p <0.001$. SE (Standard Error); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); MFQ (Mood and Feelings Questionnaire); Akaike's Information Criterion (AIC); Bayesian Information Criterion (BIC).

Figure 14. Estimated change in MFQ scores over time for completers and dropouts in each treatment arm
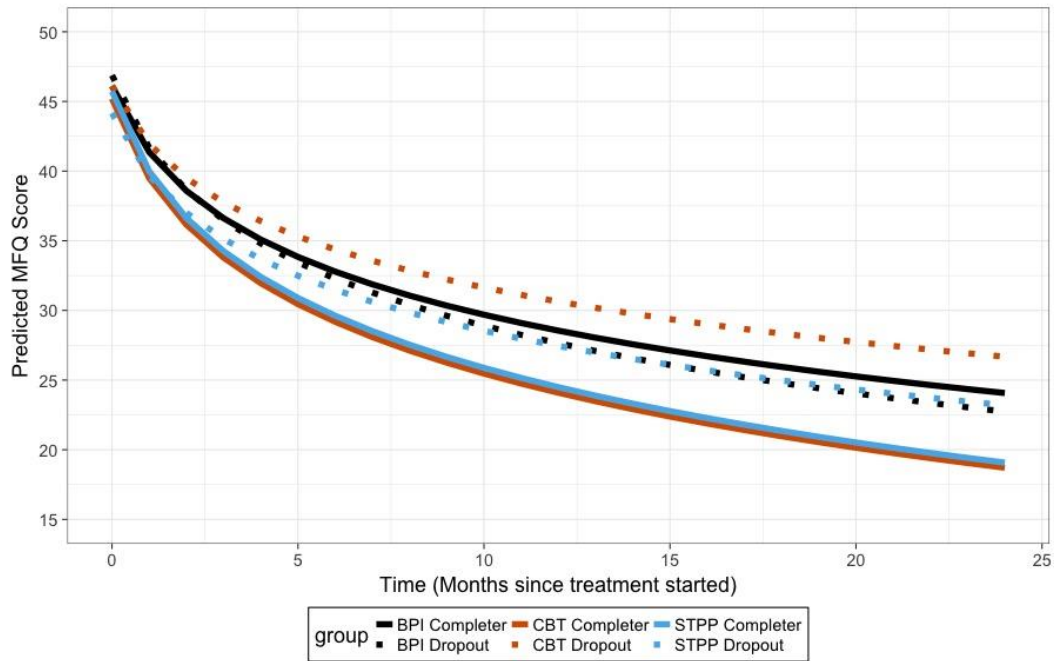
MFQ (Mood and Feelings Questionnaire). Estimated from Model 3, which predicted the trajectory of change in MFQ scores from Time X Treatment Arms X Therapy Ending interaction terms. Time was transformed into its natural logarithm, using the equation Log(Time + 1).

Table 12. Multilevel models predicting HoNOSCA outcomes, with participants and therapists included as random effects, participant random slopes and controlling for age and antisocial behaviour

	Variable	Model 1 β (SE)	Model 2 β (SE)	Model 3 β (SE)
Fixed effects	Constant	15.66 (2.78)	15.69 (2.80)	15.23 (2.81)
	Age	0.13 (0.18)	0.13 (0.18)	0.14 (0.18)
	Antisocial behaviour	0.36**** (0.08)	0.36**** (0.08)	0.36**** (0.08)
	Log(Time + 1)	-3.22**** (0.15)	-3.25**** (0.27)	-3.01**** (0.30)
	Dropout	0.72 (0.52)	0.62 (0.65)	1.34 (1.10)
	Dropout X Log(Time + 1)		0.08 (0.31)	-0.68 (0.53)
	CBT	-1.04 (0.63)	-1.07 (0.77)	-1.08 (0.95)
	CBT X Log(Time + 1)		0.03 (0.36)	-0.21 (0.43)
	CBT X Dropout			-0.03 (1.57)
	CBT X Dropout X Log(Time + 1)			0.76 (0.76)
	STPP	-0.81 (0.64)	-0.77 (0.79)	0.17 (1.03)
	STPP X Log(Time + 1)		-0.04 (0.36)	-0.62 (0.47)
	STPP X Dropout			-2.15 (1.55)
	STPP X Dropout X Log(Time + 1)			1.47* (0.74)
Random effects	Residual variance	22.98 (4.79)	22.98 (4.79)	23.03 (4.80)
	Participant variance	17.56 (4.19)	17.55 (4.19)	17.36 (4.17)
	Participant slopes	2.90 (1.70)	2.89 (1.70)	2.76 (1.66)
	Therapist variance	0.55 (0.75)	0.56 (0.75)	0.42 (0.65)
Model comparison	AIC	10218.61	10224.53	10227.65
	BIC	10266.45	10284.32	10303.39
	Likelihood ratio test		χ^2=0.08, p=0.99	χ^2=4.88, p=0.30

*$p <0.05$; ** $p <0.01$; *** $p <0.005$; **** $p <0.001$. SE (Standard Error); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); HoNOSCA (Health of the Nation Outcome Scale for Children and Adolescents); Akaike's Information Criterion (AIC); Bayesian Information Criterion (BIC).

Table 13. Multilevel models predicting LOI outcomes, with participants and therapists included as random effects, participant random slopes and controlling for age and antisocial behaviour

	Variable	Model 1 β (SE)		Model 2 β (SE)		Model 3 β (SE)	
Fixed effects	Constant	9.78	(2.42)	9.64	(2.43)	9.49	(2.44)
	Age	-0.05	(0.15)	-0.04	(0.15)	-0.06	(0.16)
	Antisocial behaviour	0.26****	(0.07)	0.25****	(0.07)	0.25****	(0.07)
	Log(Time + 1)	-1.69****	(0.09)	1.61****	(0.17)	-1.50****	(0.19)
	Dropout	0.66	(0.45)	0.45	(0.53)	1.34	(0.90)
	Dropout X Log(Time + 1)			0.15	(0.19)	-0.18	(0.33)
	CBT	0.06	(0.55)	0.56	(0.64)	1.20	(0.79)
	CBT X Log(Time + 1)			-0.34	(0.22)	-0.59*	(0.27)
	CBT X Dropout					-1.70	(1.29)
	CBT X Dropout X Log(Time + 1)					0.73	(0.47)
	STPP	-0.66	(0.56)	-0.58	(0.65)	-0.19	(0.85)
	STPP X Log(Time + 1)			-0.07	(0.23)	-0.15	(0.29)
	STPP X Dropout					-1.00	(1.27)
	STPP X Dropout X Log(Time + 1)					0.26	(0.46)
Random effects	Residual variance	7.65	(2.77)	7.65	(2.77)	7.64	(2.77)
	Participant variance	19.48	(4.41)	19.39	(4.40)	19.45	(4.41)
	Participant slopes (Time)	1.62	(1.27)	1.60	(1.26)	1.58	(1.26)
	Therapist variance	0.45	(0.67)	0.50	(0.71)	0.31	(0.56)
Model comparison	AIC	10017.02		10019.54		10024.56	
	BIC	10064.97		10079.49		10100.50	
	Likelihood ratio test			$\chi^2(3)=3.98$, p=0.26		$\chi^2(4)=2.99$, p=0.56	

* $p <0.05$; ** $p <0.01$; *** $p <0.005$; **** $p <0.001$. SE (Standard Error); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); LOI (Modified Leyton Obsessional Inventory); Akaike's Information Criterion (AIC); Bayesian Information Criterion (BIC).

Table 14. Multilevel models predicting RCMAS outcomes, with participants and therapists included as random effects, participant random slopes and controlling for age and antisocial behaviour

Variable		Model 1 β (SE)	Model 2 β (SE)	Model 3 β (SE)
Fixed effects	Constant	36.18 (4.03)	36.13 (4.05)	35.54 (4.06)
	Age	0.29 (0.26)	0.29 (0.26)	0.31 (0.26)
	Antisocial behaviour	0.32** (0.12)	0.32** (0.12)	0.32** (0.12)
	√Time	-3.57**** (0.18)	-3.51**** (0.34)	-3.16**** (0.38)
	Dropout	0.18 (0.75)	-0.07 (0.81)	0.40 (1.39)
	Dropout X √Time		0.33 (0.38)	-0.76 (0.67)
	CBT	0.13 (0.88)	0.35 (0.95)	0.38 (1.19)
	CBT X √Time		-0.30 (0.44)	-0.98 (0.54)
	CBT X Dropout			-0.13 (1.98)
	CBT X Dropout X √Time			2.08* (0.94)
	STPP	-0.84 (0.89)	-0.65 (0.95)	-0.11 (1.27)
	STPP X √Time		-0.26 (0.45)	-0.64 (0.58)
	STPP X Dropout			-1.23 (1.94)
	STPP X Dropout X √Time			1.14 (0.92)
Random effects	Residual variance	57.21 (7.56)	57.21 (7.56)	57.24 (7.57)
	Participant variance	18.44 (4.29)	18.47 (4.30)	18.32 (4.28)
	Participant slopes	6.71 (2.59)	6.66 (2.58)	6.49 (2.55)
	Therapist variance	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Model comparison	AIC	13355.28	13359.97	13361.96
	BIC	13403.24	13419.92	13437.89
	Likelihood ratio test		$\chi^2=1.23$, p=0.75	$\chi^2=6.02$, p=0.20

$*p <0.05$; $** p <0.01$; $*** p <0.005$; $**** p <0.001$. SE (Standard Error); BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); RCMAS (Revised Children's Manifest Anxiety Scale); Akaike's Information Criterion (AIC); Bayesian Information Criterion (BIC).

Table 15. Mixed effects logistic regression models predicting depression diagnoses at 36, 52 and 86 weeks, with BPI completers as the reference group and therapists included as random effects

	Variable	36-weeks (N=260) OR (95% CI)	52-weeks (N=245) OR (95% CI)	86-weeks (N=237) OR (95% CI)
Fixed effects	Constant	2.31 (0.11: 49.36)	0.11 (0.00: 3.43)	0.05 (0.00: 2.31)
	Age	0.96 (0.79: 1.17)	1.10 (0.89: 1.36)	1.16 (0.91: 1.47)
	Antisocial behaviour	0.96 (0.88: 1.05)	0.94 (0.84: 1.04)	0.98 (0.87: 1.11)
	Dropout	0.29* (0.10: 0.82)	1.29 (0.44: 3.81)	0.44 (0.13: 1.49)
	CBT	0.39* (0.18: 0.83)	0.51 (0.21: 1.22)	0.54 (0.22: 1.30)
	CBT X Dropout	5.01* (1.15: 21.84)	4.72* (1.02: 21.84)	6.01* (1.19: 30.43)
	STPP	0.34** (0.16: 0.76)	0.74 (0.30: 1.81)	0.24* (0.07: 0.76)
	STPP X Dropout	9.26** (2.38: 36.04)	1.10 (0.25: 4.82)	5.39 (0.89: 32.72)
Random effects	Therapist variance (SD)	0.00	0.00	0.00
Odds ratios for Treatment Arm X Dropout interaction terms				
Reference: BPI Completers				
	BPI X Dropout	0.29* (0.10: 0.82)	1.29 (0.44: 3.81)	0.44 (0.13: 1.49)
Reference: CBT Completers				
	CBT X Dropout	1.44 (0.51: 4.09)	6.09** (2.05: 18.10)	2.63 (0.93: 7.50)
Reference: STPP Completers				
	STPP X Dropout	2.67* (1.11: 6.41)	1.42 (0.52: 3.90)	2.36 (0.62: 8.96)

*p<0.05, **p<0.001. BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy); Mixed effects logistic regression models predicted depression diagnosis (measured by the Kiddie-SADS), with therapist effects and controlling for age and antisocial behaviour. Sample based on the number of participants who completed the Kiddie-SADS at that time point.

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Table 16. Exploratory analyses to show mean estimated difference in outcomes associated with dropout with confidence intervals, in each treatment arm

Measure	Timepoint	Overall dropout effect[1] (95% CI)	BPI dropout effect[2] (95% CI)	CBT dropout effect[2] (95% CI)	STPP dropout effect[2] (95% CI)
MFQ	36-weeks	1.81 (-0.86: 4.49)	-2.13 (-6.82: 2.56)	5.51 (0.86: 10.16)	1.93 (-2.52: 6.39)
	52-weeks	2.13 (-0.82: 5.08)	-2.35 (-7.52: 2.83)	6.16 (1.03: 11.28)	2.44 (-2.47: 7.35)
	86-weeks	2.60 (-0.80: 6.00)	-2.67 (-8.65: 3.30)	7.12 (1.21: 13.03)	3.19 (-2.47: 8.85)
HoNOSCA	36-weeks	0.80 (-0.41: 2.00)	-0.17 (-2.28: 1.93)	1.51 (-0.61: 3.63)	0.98 (-1.02: 2.97)
	52-weeks	0.82 (-0.49: 2.13)	-0.39 (-2.69: 1.91)	1.54 (-0.79: 3.86)	1.24 (-0.94: 3.41)
	86-weeks	0.86 (-0.66: 2.37)	-0.72 (-3.36: 1.93)	1.58 (-1.10: 4.26)	1.62 (-0.88: 4.12)
LOI	36-weeks	0.78 (-0.17: 1.72)	0.93 (-0.74: 2.60)	0.87 (-0.77: 2.52)	0.52 (-1.07: 2.11)
	52-weeks	0.83 (-0.16: 1.82)	0.87 (-0.88: 2.63)	1.05 (-0.67: 2.77)	0.55 (-1.12: 2.21)
	86-weeks	0.90 (-0.18: 1.98)	0.79 (-1.14: 2.71)	1.32 (-0.56: 3.19)	0.59 (-1.22: 2.39)
RCMAS	36-weeks	0.97 (-1.33: 3.27)	-1.89 (-5.95: 2.18)	4.40 (0.42: 8.39)	0.30 (-3.52: 4.12)
	52-weeks	1.14 (-1.43: 3.72)	-2.21 (-6.77: 2.34)	5.07 (0.60: 9.53)	0.48 (-3.80: 4.75)
	86-weeks	1.40 (-1.61: 4.41)	-2.70 (-8.03: 2.62)	6.05 (0.83: 11.27)	0.74 (-4.26: 5.73)

Mixed model estimates of mean differences for dropouts compared with completers at 36, 52 and 86-weeks.

Analysis used therapist, participant and slope random effects, controlling for age and antisocial behaviour.

MFQ=Mood and Feelings Questionnaire; HoNOSCA=Health of the Nation Outcome Scale for Children and Adolescent; LOI=Leyton Obsessional Inventory; RCMAS=Revised Children's Manifest Anxiety Scale. [1]*Derived from Model 2 (which tested two-way interactions: Time X Treatment Arms; Time X Therapy Ending);* [2]*Derived from Model 3 (which tested three-way interactions: Time X Treatment Arms X Therapy Ending).*

5.3.4 Post-hoc power analysis

Having undertaken this study, a post-hoc power analysis was conducted to test whether the study had been sufficiently powered to identify a clinically meaningful difference between completers and dropouts. The power analysis was conducted using the R package "simr" (Green & MacLeod, 2016) to calculate the power for a mixed model based on the observed data structure. The power calculation was based on a basic model of the Time X Ending interaction term in predicting MFQ scores, with participants included as random effects. Time was transformed into its natural logarithm with the equation Log(Time in months + 1). The fixed effect for Time X Ending was translated to a 5-point difference on the MFQ by 86-weeks, with Time translated to 20 months (i.e. 86-weeks) on the logarithmic scale (3.05) and the interaction effect at 1.64. This equates to a 5-point difference at 86-weeks, considered a clinically significant difference (Goodyer et al., 2017a). The power calculation revealed that the study had 83% power to detect a clinically significant difference between completers and dropouts by the 86-week follow up. Thus, the study appeared sufficiently powered to detect a difference between completers and dropouts, had it existed.

Power for the three-way interaction effects would be lower than for the two-way interaction effects, and thus the study was clearly not powered to formally test the three-way interaction effects for Time X Treatment Arm X Ending. This is also reflected in the large observed CIs for the estimates from the model with the three-way interaction effects, indicating the lack of precision of the estimates. It is important that the potential treatment arm differences are considered exploratory.

5.4 Discussion

The purpose of this study was to investigate whether clinical outcomes differed between completers and dropouts in each of the three treatment arms in the IMPACT trial. It was hypothesised that adolescents who dropped out of therapy would have poorer long-term outcomes compared with those who completed therapy, in the three treatment arms.

No strong evidence was found for a difference in outcomes between completers and dropouts. A post-hoc power analysis suggested that the study had sufficient power to detect a difference in outcomes between completers and dropouts, had a clinically meaningful difference (i.e. 5-points on the MFQ) existed.

In this study, it was also tested whether the difference between dropouts and outcomes may differ between the treatment arms. The study was underpowered to formally test the three-way interaction effects for Time X Treatment arm X Dropout, so these findings should be considered exploratory. Some descriptive differences were found in outcomes between completers and dropouts, with dropouts tending to have poorer outcomes than completers in the CBT and STPP arms at 86-week follow-up, with regard to depression, anxiety, and psychosocial functioning. In the BPI arm, fewer differences in outcomes were observed between completers and dropouts, although counter to the hypothesis, BPI dropouts actually tended to have better outcomes compared with BPI completers with regard to depression diagnosis at 86-weeks. However, modeling showed insufficient evidence to conclude an association between dropout and outcomes, for four of the five outcome measures investigated, based on the planned analyses. The only outcome measure where there was statistically significant evidence that dropout may be associated with poorer outcomes was depression diagnosis, in CBT and STPP. CBT dropouts were estimated to be six times more likely to meet diagnostic criteria for depression at 52-weeks compared with completers, yet this could not be estimated with a great deal of precision, and any association was not maintained in the longer term at 86-weeks. STPP dropouts were estimated to be 2.7 times more likely to meet diagnostic criteria for depression at 36-weeks than completers, but this difference was not maintained at the longer-term follow-ups. Counter to the hypothesis, BPI dropouts were estimated to be 71% less likely to meet diagnostic criteria at 36-weeks compared with completers. No such difference in depression diagnosis between BPI dropouts and completers was observed at the later follow-ups. Thus, there was some evidence for an association between dropout and outcomes in the CBT and STPP

arms after the end of treatment, yet at 86-weeks, there were no significant differences between dropouts and completers in any treatment arm.

Due to concerns about the study being underpowered, after running the statistical analyses, it was decided to explore the estimated difference in outcomes between dropouts and completers with confidence intervals in each treatment arm, to provide an indication of power (Colegrave & Ruxton, 2003). Based on the dropout estimates, some evidence for an association of dropout with outcome was found in the CBT arm, while evidence was weaker in the STPP arm, and little evidence was found in the BPI arm. This evidence must be considered weak given that the association between dropout and outcomes were estimated from models that had been rejected due to insignificant results. The wide confidence intervals of dropout estimates show that the differences in outcomes associated with dropout could not be estimated with good precision, due to the available sample size. Nevertheless, these estimates may be useful for future researchers, who may wish to conduct systematic reviews or meta-analyses to obtain better estimates of the association of therapy dropout with outcomes in adolescents.

Given that the interventions included in this study were designed to improve depressive pathology and functioning, it was surprising that dropping out appeared to have little impact on the adolescents' long-term outcomes. These findings contrast with findings of studies with adult clients, which have found CBT dropouts to have poorer outcomes than those who completed a course of CBT (Cahill et al., 2003; Saatsi et al., 2007). This unexpected finding may be explained by the literature on the reasons clients give for dropping out of treatment, which has reported not perceiving the need for further treatment as a common reason for stopping therapy (Garcia & Weisz, 2002; Kendall & Sugarman, 1997; Pekarik, 1992; Roe et al., 2006). It is possible that some young people who dropped out of therapy did so because they did not feel in of further treatment and that this perception may have been associated with actual improvement on the outcome measures. The adolescents may therefore have improved as much on average as completers, and thus no

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difference in the average trajectory of improvement between dropouts and completers could be detected within the 86-week follow-up period.

Interestingly, and in contrast to the results presented here, research with pre-adolescent child and adult clients has found dropout to be associated with poorer clinical outcomes (Boggs et al., 2005; Cahill et al., 2003; Danko, Garbacz, & Budd, 2016; Jensen-Doss & Weisz, 2008; Kazdin et al., 1994; Kazdin & Wassell, 1998; Lai et al., 1997; Luk et al., 2001; Saatsi et al., 2007). This age effect may reflect a developmental difference in the meaning of depressive symptoms and/or syndrome. Adolescents have distinctive developmental tasks that include the formation of identity, becoming more autonomous and questioning adult authority (Block & Greeno, 2011; Erikson, 1950). Perhaps therapists need to be sensitive to and assess the nature of adolescent maturation and how this may impact on the planned treatment. For example, if becoming independent from adults becomes apparent during treatment, this may enable the decision to stop therapy, allowing the adolescent to be more autonomous in their subsequent recovery (Block & Greeno, 2011). This possibility suggests that dropping out of therapy may not always be a bad thing for adolescents.

No support was found for therapist effects in any of the analyses in this study. However, this may be the result of there being many therapists with a single case. Therefore the data in this study could not adequately investigate therapist effects on dropout.

5.4.1 Strengths and limitations

This study had several strengths, including being the first known study to investigate clinical outcomes associated with dropout in adolescents receiving therapy for depression; an important area for research, given that this is one of the most common reasons that young people seek therapy. This study had the advantage of a large dataset drawing on data from three distinct treatment modalities. While the absence of strong evidence is not evidence of the absence of an effect, these findings challenge common assumptions that dropout equates to poor clinical outcomes (Cooper et al., 2018).

This study had several limitations. These are secondary analyses of this dataset and the study. A post-hoc power analysis showed that the study had 83% power for the Time X Dropout interaction effect. However, the effect of dropout may differ by treatment arm, and the study was not powered to test the potential three-way relationship between time, treatment arm and dropout. These findings must be viewed with caution and research is required to further test the association between dropout and clinical outcomes. It is possible that the 86-week follow-up is too short for some consequences of dropout to be measured. This study was limited by the lack of session-by-session measurement of outcomes in the IMPACT study. This meant that the models did not take into account the point at which dropout occurred, which meant it was not possible to assess how progress in therapy was associated with therapy dropout. It is therefore unknown how change (or lack of) may have impacted on these adolescents' decision as to whether to continue in treatment. However, it will become increasingly possible to investigate relationships between clinical outcomes and dropout, to build on the findings from this study, with shifts towards routine session-by-session outcome monitoring (Department of Health, 2011).

It is important to note that in this study, dropout was defined based on the adolescent ending therapy without the agreement of their therapist. As with the previous study, the limitation of this definition is that it is based on the therapists judgement, making it highly dependent on the their own views about the appropriateness of the ending. Another issue with the operational definition of dropout was that it did not account for when dropout occurred. To overcome this issue, sensitivity analyses were conducted to consider whether the findings differed as a function of the definition, which they did not. Given that dropout was based on therapist judgement, it was surprising that dropout was not associated with outcomes, as the results of Study 1 found that in CBT for instance, therapists frequently agreed to end therapy before the intended number of sessions. We may expect that therapists would agree to end therapy if sufficient improvements have been observed. This makes it particularly surprising that dropout was not associated with clinical outcomes in CBT.

This calls into question issues regarding operational definitions of dropout, and more broadly, about the meaning of dropout itself. As these findings were in the context of a clinical trial, it is unknown how generalisable they are to routine clinical practice, but this provides an important starting point in the study of the relationship between dropout and outcomes. Future research should build on these findings to see how they apply to routine clinical practice.

5.4.2 Next step in this research

Dropout is a common phenomenon in adolescents receiving therapy for depression, with an overall dropout rate of 37% in the IMPACT study. Given that psychotherapy is associated with positive clinical outcomes, it is generally assumed in the literature that dropping out of psychotherapy is a negative conclusion to therapy (Cooper et al., 2018). However, no strong evidence for an effect of dropout on long-term clinical outcomes was found in this study, and these findings suggest that dropping out of treatment may not always be a bad outcome for adolescents. The decision to end therapy early may be a rational one for some young people; it is possible they are able to appropriately judge when they are ready to end treatment. However the operational definition used here didn't allow for any exploration of different types of dropout. Research is required to develop a qualitative understanding of the factors that contribute to young people's decisions to stop going to therapy. Without an understanding of the reasons that young people drop out, clinicians are limited in how they can intervene and alter their practice to best meet the needs of young people.

Given that few predictors of dropout were found in Study 1, and that no strong evidence for an effect of dropout on clinical outcomes was found in this study, this called for exploratory work to try to better understand the concept of dropout. Thus, the next study was more exploratory in nature, with the aim of developing a clearer understanding of the meaning of dropout itself.

6 Study 3: Three ideal types of therapy dropout in adolescents with depression

6.1 Introduction

The findings from Study 2 showed no strong evidence for a difference in clinical outcomes between adolescents who completed and dropped out of therapy in the IMPACT trial. This raised the question of why dropout occurred. It is possible that some adolescents who stopped therapy, without the agreement of their therapist, did so due to feeling better. This idea fits with research findings that one of the commonly cited reasons for stopping therapy is not perceiving the need for further treatment (Garcia & Weisz, 2002; Kendall & Sugarman, 1997; Pekarik, 1992; Roe et al., 2006). Dropout may be covering a broad range of phenomena when based on the therapists judgement that the therapy ended prematurely without an agreed ending, and we might question the concept of dropout, and the assumption that it is necessarily a bad thing in every case. Research is needed to investigate young people's views as to why they decided to stop going to therapy. This is an important area for research as understanding why adolescents stop going to therapy can inform clinical practice about the implications of dropout and how disengagement from treatment may be managed.

The majority of studies have sought to describe *who* drops out, while there is a dearth of knowledge about *why* adolescents drop out of therapy (Ormhaug & Jensen, 2016). No known study has explored the reasons that adolescents give for stopping therapy, although one study investigated the barriers and facilitators to treatment participation from the perspectives of adolescents and their caregivers, some of whom had dropped out of treatment (Oruche et al., 2014). Facilitators to treatment participation included caregiver involvement in treatment and positive qualities of staff, and adolescents spoke about how getting on with their therapist made them willing to attend and participate in sessions. One of the main barriers to treatment participation for adolescents and their caregivers were negative interactions with staff, which they reported

making them less willing to participate in treatment and led them to lose confidence that the treatment could help. Additional barriers to treatment participation included organisational obstacles such as long waiting lists for treatment and staff turnover, and family difficulties with keeping track of appointments and arranging transportation to sessions (Oruche et al., 2014). Although Oruche and colleagues (2014) did not specifically ask those who dropped out of therapy about their reasons for doing so, these findings fit with Kazdin and colleagues' barriers to treatment model, which proposes that families experience multiple barriers when attending treatment which increase the likelihood of them dropping out (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997).

While these studies tell us about issues experienced by families when attending treatment, they do not specifically tell us about the reasons they give for stopping therapy. One study investigated the reasons for ending treatment from the perspective of parents of children (aged 7-18 years) receiving outpatient treatment (Garcia & Weisz, 2002). Reasons for stopping treatment included problems in the therapeutic relationship and money issues (Garcia & Weisz, 2002). This study provides some insight into factors that are associated with dropout from the perspective of parents; however, for adolescents, parents are likely to be less responsible for the decision to stop or continue their child's treatment, compared with younger children. Research is therefore warranted that specifically seeks to understand dropout from the perspective of adolescents themselves; a perspective which is absent from the literature. There has also been a lack of research investigating reasons for stopping therapy across different treatment modalities. It is quite possible that the reasons young people stop therapy will differ between types of treatment, and could potentially inform ways in which different treatments needs to be adapted to meet the needs of young people.

In addition to the dearth of research investigating the reasons for dropout from the adolescent perspective, little is known about what therapists understand as the reasons for which their adolescent clients drop out of therapy. One study investigated clinicians' perceptions about

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the barriers and facilitators to families attending and participating in treatment (Gearing et al., 2012). The authors reported that from the perspective of these clinicians a facilitator to treatment participation was the therapeutic alliance. Barriers to treatment participation, from the perspective of these clinicians, included the families lack of motivation to change or life circumstances interfering with treatment (Gearing et al., 2012). This study gives an insight into the barriers and facilitators to treatment engagement from the perspective of professionals working with adolescents in mental health care, but no known study has investigated therapists' understanding of dropout in relation to their adolescent clients. Research is needed to explore the reasons as to why dropout occurs from both the adolescent and therapist perspective.

The benefit of including multiple perspectives in the study of dropout has previously been demonstrated in a study of adult clients. Hunsley and colleagues conducted interviews with clients after they dropped out of therapy, and found little agreement between client and therapist views about the reasons the client stopped treatment. Therapists tended to underestimate the importance of their clients' dissatisfaction with the service in their decision to stop treatment (Hunsley, Audry, Verstervelt, & Vito, 1999). These findings suggest that the clients may not have expressed their dissatisfaction to their therapists, and it may be difficult for therapists to intuit their clients' feelings about therapy. These findings have important clinical implications, as clients' dissatisfaction is likely to go unaddressed if their therapists are unaware of it. Therapy happens in the client-therapist dyad, yet no such study has utilised this multiple perspective view on dropout in adolescent therapy, and this study will address this gap in the literature.

In the previous chapters, the issue of current definitions of dropout were discussed. The operational definition used in the previous two studies in this thesis was based on the ending of therapy being initiated by the adolescent, without the agreement of their therapist. In the literature, the premature ending of psychotherapy has almost always been considered from the perspective of the therapist, while little is known about what this means from the client perspective (Roe, 2007).

The adolescents in the previous two studies in this thesis were considered to have dropped out according to their therapists. Study 3 sought to establish a more in-depth understanding of the phenomenon of dropout, from the perspective of the adolescents themselves and their therapists.

6.1.1 Aim of Study 3

There is a dearth of knowledge about why adolescents drop out of therapy and Study 3 sought to address this gap in the literature. Little about adolescents' presentation prior to the start of therapy predicted dropout, dropout did not appear to be associated with poorer clinical outcomes, and there is great variation in the reasons for dropout cited in the limited existing literature. It seemed plausible that there may be different types of dropout. The aim of this study was to try to identify more meaningful categories of dropout, and to test whether this refined categorisation of dropout was more meaningful than the generic 'dropout' definition in identifying baseline predictors of dropout and association with outcome. Towards these aims, this study draws on the qualitative interviews carried out with a sub-sample of the adolescents who dropped out of therapy and their therapists, from the IMPACT study.

6.2 Method

6.2.1 Design

This study used a mixed method, sequential design (Creswell, Plano-Clark, Gutmann, & Hanson, 2003), where qualitative methods were used to construct a typology of dropout, and quantitative methods were then used to investigate whether characteristics and outcomes of adolescents differed between the types of dropout.

6.2.2 Data

The typology was constructed using data from the perspectives of both adolescents and their therapists. The rationale for this was that the dropout had happened between the adolescent and their therapist, and so both could give an important perspective on their experience of

therapy and the reasons that therapy stopped prematurely. The adolescent perspective provided an important insight into the reasons they gave for stopping therapy and their experience of therapy; a perspective largely absent from the literature, while the therapist interviews provided a clinical perspective on the same treatment. The data used in this study was the qualitative interviews with the adolescents and therapists. This consists of:

i.   Time 2 interviews. Experience of therapy interview (Midgley et al., 2011b). Semi-structured interviews were carried out separately with the adolescent and their therapist after the therapy had ended.

ii.   Time 3 interviews. Thinking back about therapy interview (Midgley et al., 2011c). Semi-structured interviews were carried out with the adolescent, approximately one year after their previous interview.

The data from both interviews were used in the present study, as both asked about their experiences of therapy and how therapy ended. Not all adolescents completed both interviews, and therapists were not able to be interviewed for all of the cases. All available data for the sample were included in the dataset.

Data used in the previous studies were re-analysed in this study. This consisted of data collected using the K-SADS, MFQ, RCMAS, LOI, ABQ, HoNOSCA and RTSHIA (described in full in Chapter 3).

6.2.3 Sample

For Study 3, adolescents were purposively selected from the IMPACT sample, where the adolescent had dropped out of therapy and completed a post-therapy qualitative interview with the IMPACT-ME team. Thus, the sample consisted of cases in the North London region of the trial only, where the IMPACT-ME study was carried out. There were 53 adolescents classified as dropouts in the London sample[4], and of these, 36

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[4] Dropouts were classified by the therapists' report that therapy ended without their agreement, as outlined in the previous chapters.

participated in post-therapy qualitative interviews. The sample for this study is shown in Figure 15.

Figure 15. IMPACT-ME interview completion rates for dropout cases in the North London sample of the IMPACT trial
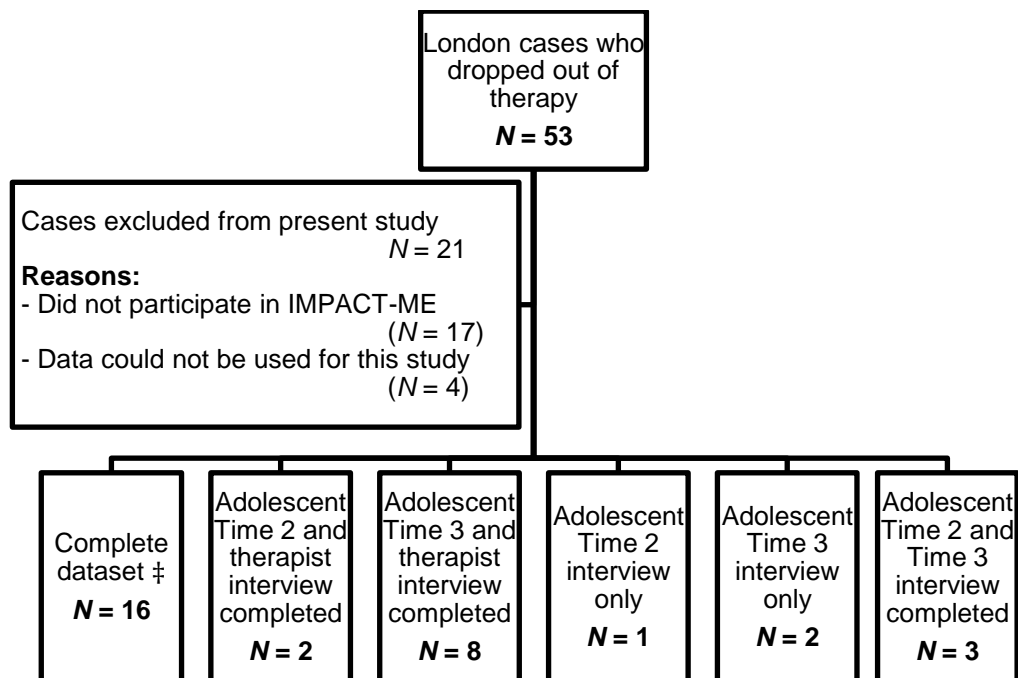
‡*Complete dataset refers to the adolescent completing a Time 2 (post-therapy) and Time 3 (one-year follow-up) interview, and their therapist also completing a post-therapy interview.*

The sample for this study consisted of the young people whose therapists had recorded them as having dropped out of therapy, but were contactable, available and willing to be interviewed after their therapy finished. Of those who dropped out of therapy in the North London region of the trial, 17 young people did not participate in the IMPACT-ME qualitative interviews. The reasons for them not participating were that they were lost to follow up ($N = 4$, 24%), they declined to participate in the IMPACT-ME study ($N = 5$, 29%), or they had withdrawn from the IMPACT study so the team did not have the opportunity to invite them to participate in the IMPACT-ME study ($N = 8$, 47%). Table 17 shows the descriptive statistics for the dropout cases in North London who did and did not participate in the IMPACT-ME study. Broadly speaking, the

sample characteristics appear similar for those who did and did not participate in the IMPACT-ME study. Although all of those who did not participate in the IMPACT-ME study were female this might be expected as there was a higher prevalence of girls in the sample. The percentages of cases that did and did not participate in the IMPACT-ME study were very similar between the three treatment arms.

Table 17. Descriptive statistics for those who dropped out of therapy and did or did not participate in the IMPACT-ME interviews

	Completed IMPACT-ME interview ($N = 36$)	Did not complete IMPACT-ME interview ($N = 17$)
Age	$M = 16.02$, $SD = 1.83$	$M = 16.43$, $SD = 1.16$
% female	72%	100%
% white British	49%	64%
MFQ at baseline	$M = 47.19$, $SD = 1.36$	$M = 47.15$, $SD = 2.62$
Treatment arm		
BPI	68%	32%
CBT	69%	31%
STPP	67%	33%

M = Mean; SD = Standard Deviation; MFQ = Mood and Feelings Questionnaire; BPI = Brief Psychosocial Intervention; CBT = Cognitive Behavioural Therapy; STPP = Short Term Psychoanalytic Psychotherapy.

For the six cases where the therapist was not interviewed, this was because the therapist declined to be interviewed ($N = 2$), the therapist was not contactable ($N = 1$), or the young person did not give consent for their therapist to be interviewed ($N = 3$).

Of the 36 adolescents who completed a post-therapy interview, four were excluded from the present study, as there was insufficient information in their qualitative interviews to classify them using ideal type analysis. The sample for this study therefore comprises the 32 dropout

cases where qualitative data was collected and could be used to address the aims of this study. Of these 32 cases, 9, 9, and 14 participants were in the BPI, CBT and STPP arms respectively. The sample consisted of 23 females (72%) and 9 males (28%). Their ages at baseline (Time 1) ranged between 11-17 years ($M = 15.84$, $SD = 1.87$), between 12-19 years at Time 2 ($M = 16.88$, $SD = 1.90$) and between 13-20 years at Time 3 ($M = 17.91$, $SD = 1.84$). Fifteen of the young people (47%) described their ethnicity as White British, and 16 (50%) described their ethnicity as any other ethnic group. Ethnicity was unknown for one case.

The lengths of the interviews with the young people ranged between 30-96 minutes at Time 2 and between 34-81 minutes at Time 3. The length of the therapist interviews ranged from 12-74 minutes.

6.2.4 Data analysis

Data were analysed using ideal type analysis to construct a typology (Gerhardt, 1994), outlining types of therapy dropout in adolescents with depression. The concept of 'ideal types' was introduced by Max Weber (1904/1949) to describe a composite case that embodied the key attributes of a set of similar cases. Ideal types are defined as a way of representing the characteristics and features of a social phenomenon (Weber, 1949). Ideal types may be thought of as "analytical constructs for use as yardsticks for measuring the similarities and differences between concrete phenomena" (Kvist, 2007, p. 474). In this context, 'ideal' is referring to an idea that presents as a useful way of thinking about clusters of cases, rather than something conceived as perfect (McLeod, 2011; Philips, Werbart, Wennberg, & Schubert, 2007).

The aim of this study was to try to identify whether there were more meaningful categories of dropout than the existing definition of dropout. Ideal type analysis was therefore chosen for the purpose of this study, as this would allow cases to be compared to form clusters of cases, towards the aim of identifying different categories of dropout, which could then be compared in terms of the characteristics and outcomes for the adolescents each of the different categories.

The analysis was approached from a critical realist position (McEvoy & Richards, 2006), based on the assumption that participants' perspectives would be grounded in forms of 'real' lived experience. The analysis describes participants' perceptions of the reasons for therapy ending prematurely. It was assumed that the data could tell us about reality, but it would not directly mirror reality. The interview data could only capture what the participants were willing to share, were able to remember from therapy and were conscious of. Thus, their accounts of therapy must be seen as partial and cannot provide the full picture as to why the therapy ended prematurely, but nevertheless, can help us to grasp some understanding of the perceived reasons that young people drop out of therapy.

It was acknowledged that what emerged from the analysis would be influenced by my own knowledge, interests and experiences, and that complete objectivity is impossible. I remained aware of my own role in shaping the analysis, a process in which the researcher makes efforts to remain aware of their own bias and influence on the data (Madill, Jordan & Shirley, 2000). For instance, I began this research with assumptions that dropping out was a negative way for therapy to conclude and that dropping out was the result of something going wrong in treatment. Awareness of these assumptions enabled me to remain open to other possibilities about the meaning of dropout. To further address the potential biases that I may have imposed on the data in my analysis, so that the analysis was not solely based on my own subjective interpretation of the data, independent researchers coded cases to the ideal types that I had constructed. The was undertaken as a credibility check of my ideal types, in line with previous studies that have used ideal type analysis (Philips, Wennberg, & Werbart, 2007; Stapley, Target, & Midgley, 2017).

As this study was drawing on the perspectives of both adolescents and their therapists, it was expected there would be differences and discrepancies between the accounts given by an adolescent and their therapist. Where their accounts mirrored or contradicted each other became an interesting aspect of my analysis. In the results, the extent to

which the account of the adolescent and therapist was similar or different is reported. As the focus in this study was on the reasons adolescents gave for dropping out of therapy, greater weighting was generally given to the adolescents' account in terms of the type they were classified as. However, in the write up, equal weighting was given to both the adolescent and therapist accounts, as both provided important context for the way in which the therapy was experienced from both perspectives.

Data analysis comprised three key stages: developing the typology, testing the typology; and coding the remaining dataset.

6.2.4.1 Stage 1: Developing the typology

The main stages of ideal type analysis according to Gerhardt (1994) are:

i.   For each case, list all themes, categories or statements drawn from the transcript(s) for each case. The researcher constructs a summary for each case.

ii. Read through all of the cases, systematically comparing each case with all of the others, to explore similarities and differences between them, until some ideas about discrete types of cases emerge.

iii. One of these 'ideal' cases is selected and the researcher then looks for other cases that resemble it. This process is continued until clusters of cases are identified.

iv. Cases within each cluster are re-examined, to ensure that they share key features and do not overlap with other types.

v.   The researcher then writes a description of each cluster or ideal type, which should try to explain why each case fits into that type.

Gerhardt's (1994) steps were followed on the first half of the dataset, to develop a typology of dropout. The focus of this study was on the reasons for dropout and the process by which dropout occurred. Therefore for this study, the full story of therapy from the perspective of the adolescents and their therapists were analysed, to explore both the implicit and explicit reasons for dropout, as well as reasons that emerged from interpretation of the data. The main focus was on adolescents' reasons

for ending therapy; however, the other categories included in the typology were deemed important in providing the context in which the dropout occurred. Expectations of therapy are an important aspect of therapeutic engagement, as it has been suggested in the literature that failure to meet client expectations may be associated with disengagement from treatment (Midgley et al., 2016). Experience of therapy was included in the typology, as in line with Kazdin's barriers to treatment model (Kazdin et al., 1997), elements of therapy linked to dropout include the obstacles experienced by families in attending therapy and the perceived relevance of treatment to their problems. The typology that was constructed consisted of ideal types, which comprised necessary conditions (i.e. the conditions that a case must meet in order to be coded to that type) and typical characteristics (i.e. characteristics that tended to fit with a type, but were not a requirement to be coded into that type, to reflect the variation within types).

6.2.4.2 Stage 2: Testing the typology

A coding frame for the typology was developed (see Table 18 for the final version of the coding frame), which outlines the most salient features of each type. A case must meet all necessary conditions in order to be coded to a type. The coding frame was developed for the purpose of testing the typology, and therefore does not include the typical characteristics of the types, as the coding frame only included those characteristics that differentiate the types of dropout. Two independent researchers used this coding frame to each categorise six cases into the ideal types. Inter rater reliability was based on a) the percentage agreement on how the cases were classified; and b) the agreement on the necessary conditions. Agreement on the necessary conditions was assessed using the Gower distance. Gower distance provides a value showing the similarity between the coding of the necessary conditions between the two researchers. Gower distance is calculated from a similarity matrix comparing agreement for each characteristic for each participant between the two researchers, where each characteristic is coded 0 (do not agree) or 1 (agree). Gower distance is the number of

categories that both researchers rated as present, divided by the number of categories that one or both researchers rated as present. Values range between 0 (no similarity) and 1 (perfect similarity) (Gower, 1971).

The first was a qualitative post-doctoral researcher, who had experience of ideal type analysis. Good agreement (83%) for the types was established, with disagreement on one of the cases. Agreement was also good for the necessary conditions (Gower distance = 0.83). This process led to some refinement of the coding frame.

The second was a postgraduate researcher, without experience of ideal type analysis. There was 100% agreement on the types, and agreement on the necessary conditions was good (Gower distance = 0.78). During this process, the researchers were given the option to select an 'Other' type, to allow for the possibility that the typology may not have been comprehensive enough for the cases. Both researchers reported that the typology had been comprehensive enough for the cases they coded and did not code any of the cases in the 'Other' category. The categorisation of cases completed by the second researcher did not lead to any further developments of the coding frame. This served as a credibility check for the ideal types.

Table 18. Ideal types coding frame

Type	Summary	Necessary conditions
1) 'Dissatisfied' dropout	The adolescent reported stopping therapy because it failed to meet their needs.	- Adolescent reported stopping therapy because they did not find it helpful. - Adolescent was critical of the therapy they received. - Therapist reported that adolescent had difficulty attending or engaging in the sessions.
2) 'Got-what-they-needed' dropout	The adolescent reported stopping therapy because they felt better.	- Adolescent reported not seeing a need to keep going to therapy, as they felt better or it was due to end soon. - Adolescent attributed positive change, to some extent, to the therapy. - Therapist did not appear to be worried about the adolescent stopping therapy.
3) 'Troubled' dropout	The adolescent reported stopping therapy because they felt it was not the right time for them to engage in therapy.	- Adolescent presented with complex difficulties (e.g. homelessness, history of abuse) - Adolescent linked (or implied) stopping therapy to external difficulties. - Therapist suggested that the adolescent could not have engaged in any type of therapy at that time, because of the lack of stability in their life.

A case must meet all necessary conditions to be coded as that type.

6.2.4.3 Stage 3: Coding the remaining dataset

The coding frame was then used to code the remaining cases in the dataset. All of these cases fitted into the existing types.

A third independent researcher, a postgraduate researcher without experience of ideal type analysis, then classified all cases that had not been included in the previous credibility checks, using the final coding frame (Table 18). This served as a reliability check, and agreement was 96%, with agreement on all but one case and there was also good agreement on the necessary conditions (Gower distance = 0.71).

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In the results of this study, the necessary conditions and the typical characteristics are presented, followed by an illustrative case for each type. This provides a detailed example to illustrate that type in its most pure or optimal form. A pseudonym has been assigned for each illustrative case, and identifying details have been changed or removed, to maintain the anonymity of these cases. Where there was significant variation within a type, this is reported in the results.

6.3   Results

Three types of dropout were constructed, using ideal type analysis: 'dissatisfied' dropout, 'got-what-they-needed' dropout and 'troubled' dropout.

Table 19 shows the number of participants in each type by treatment arm. In the BPI arm, the 'got-what-they-needed' type was most common, with five BPI cases fitting into this type. The remaining BPI cases were classified as 'dissatisfied' ($N = 3$) and 'troubled' ($N = 1$). As in the BPI arm, the most common type in the CBT arm was 'got-what-they-needed' dropout, with four CBT dropouts fitting this type. The remaining CBT cases were 'dissatisfied' ($N = 3$) and 'troubled' ($N = 2$). In the STPP arm, the most common type was 'dissatisfied' dropout, with 12 STPP dropouts fitting this type. Of the remaining three STPP dropouts, one was classified as an 'got-what-they-needed' dropout and one as a 'troubled' dropout.

Table 19. Percentage of dropout types by treatment arm

Treatment	'Got-what-they-needed' dropouts *N* = 10	'Dissatisfied' dropouts *N* = 18	'Troubled' dropouts *N* = 4	Total *N* = 32
BPI	5 (56%)	3 (33%)	1 (11%)	9 (100%)
CBT	4 (45%)	3 (33%)	2 (22%)	9 (100%)
STPP	1 (7%)	12 (86%)	1 (7%)	14 (100%)

BPI = Brief Psychosocial Intervention; CBT = Cognitive Behavioural Therapy; STPP = Short Term Psychoanalytic Psychotherapy

6.3.1 Ideal Type 1: 'Dissatisfied' dropout

Description

'Dissatisfied' dropouts reported stopping therapy because they did not find therapy helpful and it failed to meet their needs.

Necessary conditions

- 'Dissatisfied' dropouts were critical of the therapy they received, and described a range of things about the therapy they did not like or did not find helpful.

- 'Dissatisfied' dropouts described issues they had with their therapists approach to therapy, as well as issues with the relationship they had with their therapist.

- 'Dissatisfied' dropouts reported stopping therapy because they did not feel they were benefitting from it.

- Therapists of 'dissatisfied' dropouts reported that the adolescent showed some reluctance to engage, either in the sessions, or through missed sessions.

Typical characteristics

- When thinking back to before starting therapy, 'dissatisfied' dropouts tended to report being hopeful that therapy would help

them, although some described reservations they had about starting therapy.

- 'Dissatisfied' dropouts may have referred to practical issues associated with attending therapy, but did not cite these as reasons for stopping therapy.

- Therapists of 'dissatisfied' dropouts tended to report that they believed the ending of therapy was the result of the adolescents inability to engage in the therapy.

- Therapists of 'dissatisfied' dropouts tended not to report the adolescents criticisms of therapy and therefore appeared to be unaware of many of the adolescents criticisms of therapy. Their narrative of the therapy tended to be distinctly different from that of the adolescent.

Eighteen cases represented this type (BPI = 3, CBT = 3, STPP = 12).

Significant variation

While in all three treatment arms adolescents expressed dissatisfaction with the therapy, there were differences in the nature of their dissatisfaction. In the BPI and CBT arms, adolescents described dissatisfaction with the therapy being too structured or not understanding the rationale for some of the activities in therapy, such as keeping a diary. In contrast, dissatisfaction in the STPP arm tended to focus on the lack of structure, not knowing what to talk about, feeling uncomfortable with silence in the sessions or the therapist offering interpretations that didn't make sense to them.

For some cases, there was overlap between the 'dissatisfied' and 'got-what-they-needed' types, whereby the adolescent reported stopping therapy because of issues they had with the therapy, but at the same time, attributed some positive change to the therapy. These adolescents were classified as 'dissatisfied' dropouts as their dissatisfaction was the reason they gave for stopping therapy, despite having found some element of therapy helpful.

For a minority of 'dissatisfied' dropouts, their therapists reported initially thinking the type of therapy would be a suitable approach for these young people, but during the work, the therapists described how it became apparent that the allocated therapy was not the right fit for the young persons needs. For these cases, the therapists reported that they hadn't agreed to the ending of therapy as there hadn't been any apparent improvement for these adolescents. However, in retrospect, the therapists suggested that the therapy was not appropriate for the needs of these young people and therefore to a certain extent it may be viewed as appropriate that the therapy ended when it did, as according to the therapists, these adolescents needed a different type of therapy.

One case fitted with the 'dissatisfied' type as the young person was extremely critical of the therapy she received, but differed from the other 'dissatisfied' dropouts as she referred to a very specific event (a potential social services referral) as the reason for stopping therapy. While the majority of 'dissatisfied' dropouts reported multiple issues with the therapy that led to their decision to stop therapy, this variation of the 'dissatisfied' type represented a very specific event that the adolescent reported as being the sole reason for stopping therapy.

Illustrative case

Fiona was a 13-year-old girl who received STPP. She attended five out of seven sessions. She attended her first three sessions, and then began missing sessions, before she stopped therapy. Fiona was interviewed at the end of therapy, and then again, one year later. Fiona's therapist was interviewed after the therapy ended.

Adolescent's perspective

Expectations of therapy. When thinking back to the beginning of her therapy, Fiona reported feeling "nervous" about starting therapy and it being "embarrassing" having to talk about her difficulties.

Experience of therapy. When interviewed after her therapy ended, Fiona was critical of the therapy she received. Fiona's main criticism was with the way in which the therapist interacted with her. She described how the

therapist would ask her questions, but when she answered, the therapist wouldn't respond, and they could spend five minutes in silence, which Fiona described as "awkward". Fiona described her therapy:

> *"I went to this woman and she just sat there and hummed for an hour at everything that I said. I hated it. She made me really angry because it just felt like I was talking to a brick wall and I wasn't. I didn't even want to talk to her because she didn't engage with me at all. It just felt like it was completely pointless."*

Fiona described finding the therapy "disappointing" and "it just felt like I was having a conversation with myself". Fiona also reported not feeling comfortable telling the therapist how she felt.

How therapy ended. Fiona described how her decision to stop going to therapy came about:

> *"Well I wasn't enjoying it, well not enjoying it because it's not something you're going to have fun in doing, but I wasn't benefiting from it and it just seemed really pointless because it was quite far away and I didn't feel like I was getting anything out of it. And I was missing time off school to actually get there on time."*

While Fiona referred to the inconvenience of attending therapy, she implied this was not the reason for stopping: therefore, potentially she would have kept going, had she felt she was benefitting from it.

Therapist's perspective

Story of therapy. The therapist reported that at the start of therapy, Fiona and her parents had expressed reservations about therapy. Despite this, the therapist described seeing a side to Fiona that could engage in the therapy, as she would switch between being "animated" and "closed and defended". Although the therapist reported there being signs that Fiona might engage, the therapist described the therapy as brief as Fiona decided to stop therapy prematurely.

How therapy ended. The therapist described how in the sessions, they were getting "really close to something", but Fiona then withdrew from her and trying to engage her felt like "pulling teeth". The therapist reported that Fiona then said she did not want to continue with therapy. The

therapist speculated that things had already started to improve for her at an early stage in the therapy and the therapist suggested this may have impacted on her willingness to engage:

> *"I think the session sort of stirred stuff up and the fear was that she'd feel worse again".*

The therapist reported that Fiona believed she was better when she decided to stop therapy, whereas the therapist stated that she did not believe things were truly resolved for Fiona, and speculated that she could have benefitted from it, had she continued in therapy.

6.3.2 Ideal Type 2: 'Got-what-they-needed' dropout
Description

'Got-what-they-needed' dropouts reported stopping therapy because from their perspective, they had got what they needed and did not feel a need to continue in therapy.

Necessary conditions

- 'Got-what-they-needed' dropouts reported finding therapy helpful and attributed positive change in their life, at least to some extent, to the therapy they received.

- 'Got-what-they-needed' dropouts reported stopping therapy as they felt they had got the help they needed.

- Therapists reported that 'got-what-they-needed' dropouts had got what they needed from therapy, but viewed the ending as premature in the sense that they believed the adolescent could have benefitted further, had they continued in therapy.

- Therapists did not appear to be left concerned about 'got-what-they-needed' dropouts, as they reported seeing some improvements for the adolescent by the time they stopped going to their sessions.

Typical characteristics

- 'Got-what-they-needed' dropouts may have been critical of specific aspects of the therapy, or may have referred to the inconvenience of attending sessions, but did not cite these as reasons for stopping therapy.

- Therapists tended to report signs of disengagement for 'got-what-they-needed' dropouts, either through missed sessions or reluctance to engage when they did attend, so did not appear to be surprised when the adolescent stopped therapy.

Ten cases represented this type (BPI = 5, CBT = 4, STPP = 1).

Illustrative case

Connor was a 17-year-old boy, who received CBT. Connor attended seven out of nine offered sessions, so had attended regularly but missed some sessions in the later part of treatment, before deciding to stop going to therapy. Connor and his therapist were interviewed after the end of therapy. Due to work commitments, Connor was unavailable to be interviewed a year later.

Adolescent's perspective

Expectations of therapy. After his therapy ended, Connor reported that he had gone to therapy because his mum wanted him to get help, and described being ambivalent about going to therapy.

Experience of therapy. Connor gave a balanced account of his therapy, as he described aspects of therapy he found positive, as well as some criticisms of the therapy. Connor reported that it was "helpful to talk to someone". He spoke positively about his therapist and the relationship they had:

> *"She wanted to help. Not judgmental or anything. You know, like a nice person. So it was a good relationship".*

Connor also spoke about some reservations regarding the approach to therapy, as he questioned "why can't we just talk about stuff?", instead of focusing on a specific goal. Overall, Connor gave the impression that he had got something out of the therapy, despite his reservations about it.

How therapy ended. Connor linked his decision to stop therapy to external circumstances. He suggested that one of the main triggers to his depression was difficulties he had had in school, and therefore once he finished school, he reported feeling ready to stop therapy:

> *"I just wanted to kind of, get that kind of phase of my life over with. I didn't really want to, like, it was almost like doing the stuff put me in a worse mood, because it would put me in a mind-set of, oh ok, I'm going to a therapy meeting now, that means I have, something to talk about, about why I'm feeling bad".*

Connor described feeling better by this point, so reported not feeling a need to keep going to therapy.

Therapist's perspective

Story of therapy. The therapist described Connor as compliant with the treatment, in that he attended most of the sessions, although she also described how he seemed "reluctant" to be there. The therapist described how they focused on Connor's sleep patterns in the sessions, and she reported that she thought this was helpful for Connor.

How therapy ended. Connor's therapist described how Connor "stopped coming" to therapy, which she connected to his ambivalence towards therapy. However, she reported that Connor had benefitted from therapy by the time he decided to stop, and did not suggest she was concerned about him ending therapy, despite her not agreeing to the ending. The therapist speculated that Connor may need more therapy in the future, but suggested that the practical level of support that she offered him seemed to be the right approach for him, at that point in his life.

6.3.3 Ideal Type 3: 'Troubled' dropout
Description

'Troubled' dropouts reported stopping therapy because of a lack of stability in their life which made it difficult to engage in therapy.

Necessary conditions

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- 'Troubled' dropouts reported willingness to try therapy, but also described significant difficulties beyond their low mood (including homelessness, history of abuse and trauma, and financial and caring responsibilities).

- 'Troubled' dropouts reported stopping therapy as a result of a lack of stability in their life, which impacted on their session attendance.

- Therapists of 'troubled' dropouts gave a similar account to that of the adolescent, reporting that they lacked the stability in their life to engage in the therapy, which needed to be addressed before the adolescent would be able to engage in therapy.

Typical characteristics

- While 'troubled' dropouts reported being willing to try therapy, they also tended to speak about reservations about therapy, such as concerns about the stigma associated with seeing a therapist and doubts about whether it would help.

- Therapists of 'troubled' dropouts tended to report that the adolescent engaged in the sessions, when they attended, but they missed a lot of sessions, as a result of the external difficulties in their lives. The therapists suggested these external difficulties were the main reasons for the adolescent stopping therapy.

Four cases represented this type (BPI = 1, CBT = 2, STPP = 1).

Significant variation

'Troubled' dropouts varied in how they spoke about their experience of therapy. While some reported not finding it helpful, others spoke about finding aspects of it helpful, such as being offered advice and the relief of talking to someone. Regardless of whether 'troubled' dropouts spoke about therapy being helpful or unhelpful, they did not tend to link this to their decision to stop therapy.

Illustrative case

Asha was a 17-year-old girl, who received BPI. Asha attended seven out of twelve offered sessions. Her attendance was erratic throughout the whole treatment, and of the sessions she did attend, she often arrive late to the sessions. Asha was interviewed once only, one year after her therapy ended, and her therapist was interviewed after the therapy ended.

Adolescent's perspective

Expectations of therapy. Thinking back to before starting therapy, Asha reported that she was open to having therapy, stating that she would take "any help that anyone could give me". She reported struggling with numerous responsibilities, including being a carer and having financial responsibilities, alongside fulltime education. However, she also spoke about previous treatment that she had received and how she had "never saw it through". Asha's previous disengagement may not have been a good indicator for the therapy, yet she also suggested she was open to accepting help.

Experience of therapy. Asha described finding it difficult to engage in the therapy:

> *"I don't like talking. I don't think it was the right thing for me to be doing psychotherapy because I just like was, it was pointless because I was just kind of waffling and not talking about really what I wanted to talk about".*

Asha reporting avoidance of talking about the issues she wanted to talk about may suggest that she was not ready to face these issues at that time.

How therapy ended. Asha reported how her therapy ended:

> *"I went for a while and then and then I just stopped going. Just because I felt like I wasn't changing anything and my life was all over the place and I just like oh, yeah, just stopped going".*

While Asha described stopping therapy because she didn't feel she was gaining from it, she also linked it to external factors in her life.

Therapist's perspective

Story of therapy. Asha's therapist reported that Asha's therapy attendance had been "intermittent". The therapist linked Asha's difficulty attending the sessions to the demands in her home life, and reported that the focus of the sessions was on helping Asha to manage her living situation. The therapist speculated that with the instability in her life, Asha may not have been able to engage in any kind of treatment:

> *"So I'm not sure, you know, as far as an individual therapy is concerned, whether that, whether anything would've worked at that time".*

Therefore, the therapist seemed doubtful that any talking therapy could have worked at that point in Asha's life, and suggested that Asha needed to find stability in her life before she could attend treatment regularly. *How therapy ended.* The therapist reported that the therapy ended because Asha "just stopped coming" and speculated that this was because she did not have the stability in her life to attend the sessions.

6.3.4 Comparison of the cases in the ideal types

Having constructed a typology of dropout, further exploration of the cases in each type was conducted, drawing on the quantitative data. This was carried out to see whether this refined categorisation of dropout was more meaningful than using the generic 'dropout' definition in identifying baseline predictors of dropout and association with outcome. This comprised comparison of the types by treatment arm, session attendance, baseline characteristics and clinical outcomes. Descriptive statistics were compared between the types of dropout.

Baseline descriptive statistics are shown in Table 20 for the adolescents in each of the types of dropout, and the completers are also included for comparison. 'Got-what-they-needed' dropouts appeared similar to the completers at baseline. 'Dissatisfied' dropouts also appeared similar to the completers at baseline, although they had higher self-harm scores. 'Troubled' dropouts had some of the highest scores for antisocial behaviour, risk taking and self-harm, and all presented with at least one comorbid disorder at baseline. 'Troubled' dropouts therefore

seemed to present with more difficulties at baseline, especially compared with the completers and 'got-what-they-needed' dropouts.

Table 20. Baseline descriptive statistics for dropout types and completers, for the North London sample

	Completers N = 67	'Got-what-they-needed' dropouts N = 10	'Dissatisfied' dropouts N = 18	'Troubled' dropouts N = 4
Sex (% female)	69%	60%	72%	100%
Ethnicity (% White British)	59%	40%	65%	0%
Comorbidity (% with 1 or more comorbid disorder)	48%	50%	33%	100%
	M (SD)	M (SD)	M (SD)	M (SD)
Age	15.63 (1.63)	14.97 (1.82)	16.12 (1.95)	16.73 (0.65)
Depression severity (MFQ)	45.69 (11.32)	47.12 (6.21)	47.67 (9.72)	45.98 (6.16)
Anxiety severity (RCMAS)	41.47 (7.68)	44.66 (5.89)	40.37 (7.20)	44.50 (3.11)
Obsessionality (LOI)	10.77 (5.25)	10.81 (5.08)	9.78 (5.55)	8.20 (3.58)
Anti-social behaviour (ABQ)	2.95 (2.66)	5.50 (2.80)	3.67 (2.06)	8.00 (4.24)
Psychosocial functioning (HoNOSCA)	18.55 (6.63)	15.55 (6.29)	20.90 (7.88)	21.11 (6.19)
Risk taking (RTSHIA)	5.13 (5.04)	5.25 (4.20)	6.77 (4.83)	12.75 (4.03)
Self-harm (RTSHIA)	11.24 (8.71)	12.68 (7.64)	17.97 (12.92)	17.81 (11.89)

M = Mean; SD = Standard Deviation). Comorbidity measured with the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS); MFQ (Mood and Feelings Questionnaire); RCMAS (Revised Children's Manifest Anxiety Scale); LOI (Leyton Obsessional Inventory); ABQ (Antisocial Behaviours Questionnaire); HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); RTSHIA (Risk Taking and Self Harm Inventory).

The average numbers of attended and missed sessions for cases within each of the types are shown in Table 21. Missed sessions after the final attended session were not included in these figures. The average number of attended sessions was greater than three for all of the dropout types, in all three treatment arms, indicating that young people tended to attend several sessions before deciding to stop therapy. The average number of missed sessions did differ by treatment arm (as described in Study 1), but there was not a great deal of difference between the dropout types within each treatment arm with regards to the number of missed sessions.

Table 21. Number of attended and missed sessions in each dropout type and treatment arm

		'Got-what-they-needed' dropouts $N = 10$ M (SD)	'Dissatisfied' dropouts $N = 18$ M (SD)	'Troubled' dropouts $N = 4$ M (SD)
Attended	**BPI**	4.80 (2.68)	4.33 (0.58)	7.00 (N/A)
	CBT	5.00 (3.56)	9.00 (2.65)	3.50 (2.12)
	STPP	4.00 (N/A)	7.67 (3.31)	7.00 (N/A)
Missed	**BPI**	3.00 (2.24)	5.00 (2.00)	3.00 (N/A)
	CBT	2.25 (1.26)	3.00 (4.24)	1.50 (0.71)
	STPP	6.00 (N/A)	6.09 (4.04)	13.00 (N/A)

Missed sessions exclude those missed after the last attended session. M = Mean; SD = Standard Deviation. BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

Figure 16 shows the mean depression severity scores at each time point, for 'got-what-they-needed' dropouts, 'dissatisfied' dropouts and completers, as measured by the MFQ. 'Troubled' dropouts were excluded from Figure 16 due to an insufficient sample size. Figure 16 shows that depression severity scores reduced for all groups over time, with 'got-what-they-needed' dropouts making the greatest gains, compared with

completers and 'dissatisfied' dropouts. 'Dissatisfied' dropouts made less gains compared with completers at the earlier time points, but by 86-weeks, had made equivalent gains to completers.

Figure 16. Mean MFQ scores at each time point, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts
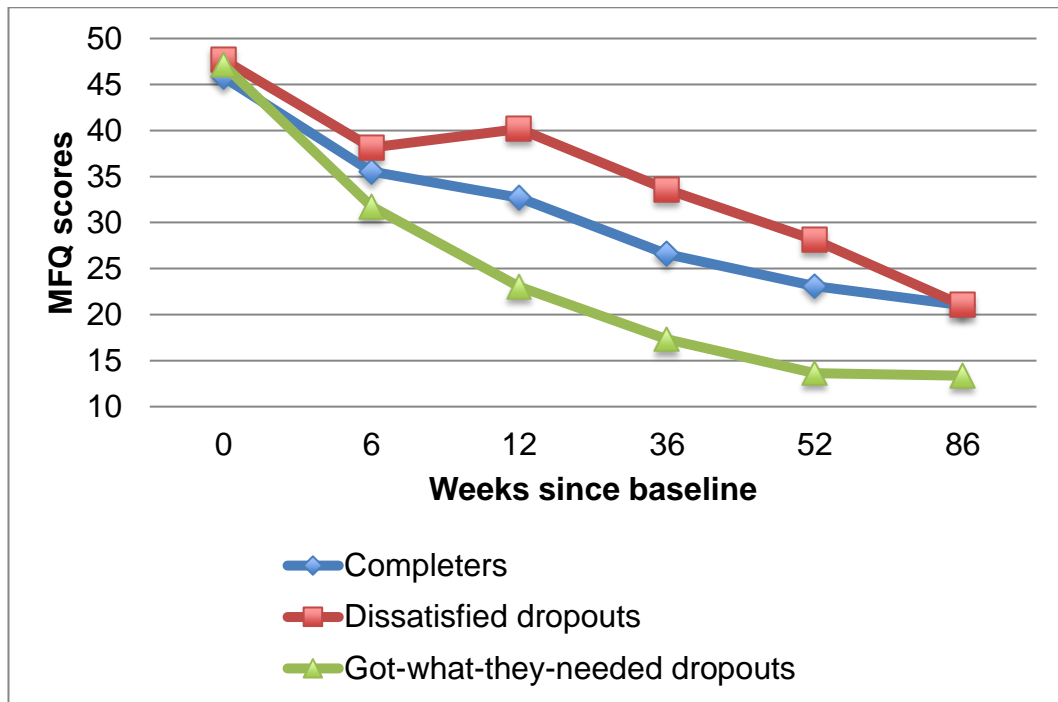
Sample comprises cases from North London only. MFQ (Mood and Feelings Questionnaire).

6.4 Discussion

The aim of Study 3 was to try to identify more meaningful categories of dropout than the existing definition of dropout, and to explore whether this refined categorisation of dropout was more meaningfully associated with baseline predictors of dropout and clinical outcomes, in a group of adolescents who received therapy for depression and dropped out. Three distinct types of dropout were constructed using ideal type analysis (Gerhardt, 1994; Weber, 1949). 'Got-what-they-needed' dropouts were those who reported stopping therapy because they felt better. 'Dissatisfied' dropouts were those who reported stopping therapy because they did not find it helpful and it failed to meet their needs.

'Troubled' dropouts reported stopping therapy because of a lack of stability in their lives that made it difficult for them to engage in therapy.

'Dissatisfied' dropouts were critical of the therapy they received, and described a range of things they didn't like about the therapy or find helpful, including issues they had with the therapists approach and the relationship with their therapist. The aspects of therapy that 'dissatisfied' dropouts were critical of in Study 3 fit within Bordin's (1979) definition of the therapeutic alliance, including issues with the tasks and goals for treatment (for example, not finding the approach helpful or not understanding the rationale for certain tasks, such as homework), as well as issues in the therapeutic relationship (such as feeling pressured into talking or not feeling cared about by their therapist). This type resembles aspects of the barriers to treatment model, proposed by Kazdin and colleagues which outlines difficulties experienced by families in attending treatment (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997). Difficulties outlined in this model include perceptions that treatment is not relevant or is too demanding and issues in the relationship with the therapist, which are particularly relevant to 'dissatisfied' dropouts, as many of the issues with treatment cited by these adolescents fit with those of Kazdin's barriers to treatment model. 'Dissatisfied' dropouts also frequently referred to practical issues in attending therapy, such as the cost of bus fares or taking time off school, which fit with 'obstacles to coming to therapy' from the barriers to treatment model. Research has found that the more obstacles experienced by families, the greater the risk of dropout (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997; Kazdin & Wassell, 1998; McCabe, 2002; Prinz & Miller, 1994; Stevens et al., 2006). However, it is important to note that 'dissatisfied' dropouts in this study did not cite these practical issues as reasons for stopping therapy. Rather, it seemed that for these young people, the costs of therapy outweighed the benefits, and therefore had they perceived the therapy to be meeting their needs, they may have been willing to overcome the practical issues associated with attending their sessions. It seems likely

that the adolescents' perceived lack of helpfulness of treatment was central to their decision to continue or stop treatment.

'Dissatisfied' dropout was the most common dropout type in Study 3; it occurred in over half of the cases (18/32). It appeared to be an unfavourable ending of therapy, as it was without the agreement of their therapist, they were critical of the therapy they received, and had poorer observed outcomes at the end of treatment (36-weeks) compared with 'got-what-they-needed' dropouts and completers. The therapists of 'dissatisfied' dropouts also showed little awareness of the adolescent's dissatisfaction with treatment, which fits with existing research findings that clients often avoid expressing their dissatisfaction or negative experiences of therapy to their therapist (Farber, 2003; Gibson & Cartwright, 2013; Henkelman & Paulson, 2006; Hill, Thompson, Cogar, & Denman, 1993; Kelly, 1998; Paulson, Everall, & Stuart, 2001; Regan & Hill, 1992; Rhodes, Hill, Thompson, & Elliott, 1994; von Below & Werbart, 2012; Watson & Rennie, 1994). Clients tend to be comfortable talking to their therapists about what has been helpful in therapy (Paulson et al., 2001), but not in sharing their negative experiences with their therapists, and therapists are often unaware of what their clients are choosing to keep silent about (Hill, Nutt-Williams, Heaton, Thompson, & Rhodes, 1996; Regan & Hill, 1992). Previous research has also found that clients typically find it easier to express their dissatisfaction with psychotherapy in a research context than in therapy (Dale, Allen, & Measor, 1998). This mirrors what was found in Study 3, as the adolescents expressed many criticisms of therapy in the research interviews, yet often did not seem to have shared these criticisms with their therapists, with some adolescents explicitly stating that they did not feel comfortable expressing their negative views about therapy to their therapist.

Research conducted as part of the Young Adult Psychotherapy Project investigated the experience of therapy from the perspective of young adults who received psychoanalytic psychotherapy and were dissatisfied with their treatment (von Below & Werbart, 2012). The authors developed a model of client dissatisfaction, based on a grounded theory analysis of the young adults' experiences of therapy. In this model,

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dissatisfaction was conceptualised as 'an experience of abandonment' as the result of not feeling understood, finding therapy insufficient in flexibility and intensity, and lacking in relevance to the clients' everyday lives. Overall, client dissatisfaction centred around the therapeutic relationship, which clients did not feel able to express to their therapists (von Below & Werbart, 2012). Clients' dissatisfaction with therapy can therefore be understood within the therapeutic alliance literature.

At baseline, there did not appear to be any notable differences between 'dissatisfied' dropouts and completers, with regards to their presenting symptoms. It is possible that their dissatisfaction may have been the result of a mismatch between the adolescent and therapist, or the type of therapy they received. For instance, while 'dissatisfied' dropouts from BPI and CBT tended to criticise aspects of the structure, such as focus on goals or homework, in STPP, 'dissatisfied' dropouts often criticised the lack of structure or not knowing what to talk about. This raises questions about whether it was the lack of suitability of the type of treatment that was the cause of their dissatisfaction. However, we don't know if they had been offered another type of treatment whether they would have been more satisfied with the therapy and completed treatment. For a minority of 'dissatisfied' dropouts, the therapists expressed that they did not think the type of therapy was suitable for the adolescent, and thus, the adolescents' dissatisfaction may have been the result of being randomised to a treatment that was unlikely to meet their needs. However, the majority of therapists of 'dissatisfied' dropouts did not seem to think that the type of therapy was unsuitable for these young people. This raises a lot of questions about how dissatisfaction arises in therapy and how it should be addressed.

'Got-what-they-needed' dropouts reported that they had got what they needed, their therapists were not left concerned about them, and they had better observed clinical outcomes compared with completers and 'dissatisfied' dropouts at all time points. 'Got-what-they-needed' dropouts fit with several qualitative studies that cite clients reporting not perceiving the need for further treatment as a reason for stopping treatment (Garcia & Weisz, 2002; Kendall & Sugarman, 1997; Pekarik,

1992; Roe et al., 2006). The finding that a significant minority of cases in this sample were 'got-what-they-needed' dropouts challenges the definition of dropout, suggesting that stopping therapy without the agreement of the therapist is not necessarily a negative way for therapy to conclude. While we could speculate that these young people were justifying their decision to end therapy by saying they didn't need to keep going, this study found they did have better observed outcomes compared with 'dissatisfied' dropouts and completers at all time points. Although these findings are exploratory, they support the reported perception of 'got-what-they-needed' dropouts that they did not need to keep going to therapy. It was hypothesised that 'got-what-they-needed' dropouts may have been less impaired at baseline, and therefore only required a brief intervention for them to feel sufficiently improved to stop therapy. This hypothesis was not supported, as there was not a difference in their baseline depression severity scores compared with completers or 'dissatisfied' dropouts, nor did they appear different from completers on a range of baseline measures, including self-harm and risk taking. These findings suggest that a significant minority of adolescents, even with moderate to severe depression, may benefit from a brief intervention and be able to decide to end therapy appropriately, even when their therapist has not agreed to the ending of treatment. Their therapists viewed the ending as premature, yet at the same time, were generally not concerned about these adolescents and therefore it may be viewed as appropriate that they stopped therapy. Overall, 'got-what-they-needed' dropouts appeared to have stopped therapy for positive reasons, in stark contrast from the other types of dropout, which appeared to be more concerning types of dropout.

'Troubled' dropouts reported stopping therapy because of a lack of stability in their lives, which made it difficult for them to engage in the therapy, at that time. As well as the complex difficulties that these adolescents and their therapists reported as having interfered with the therapy (such as not having a stable home or having responsibilities to support their family), at baseline, 'troubled' dropouts also appeared the most impaired in terms of symptom severity, compared with the other

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dropout types and completers. This included them having the highest mean scores for antisocial behaviour, risk taking and self-harm, compared with the other types, and all presented with at least one comorbid disorder. This type fits with Kazdin's (1996) risk factor model, which proposed that there are numerous conditions that influence a family's engagement with treatment, and studies supporting this model have generally indicated that it is the most disadvantaged youth who are most likely to drop out of treatment (Kazdin, 1996). 'Troubled' dropouts most certainly would have met the criteria for a number of risk factors, and therefore according to Kazdin's risk factor model, would have been considered at high risk of dropout. The reasons reported by 'troubled' dropouts for stopping therapy focused primarily on issues outside of the therapy room, contrasting with the other types of dropout, whose reasons for stopping therapy centred around what happened in the therapy and whether or not they found it helpful.

The most common type in the BPI and CBT arms was 'got-what-they-needed' dropout, with 42% and 45% of dropouts in these treatments fitting with this type. This finding may be understood in the context of the BPI and CBT treatment models, which focus on the presenting symptoms, which may have resulted in early symptom relief, resulting in these adolescents considering themselves to be sufficiently improved to stop therapy. While their therapists didn't agree to the ending as they tended to report believing that the adolescent could have benefitted further had they continued, at the same time, did not seem concerned about the ending of therapy.

The most common type in the STPP arm was 'dissatisfied' dropout, with 79% of STPP dropouts fitting with this type, compared to 25% of BPI and 33% of CBT cases. This raises questions about the specific aspects of STPP that adolescents seemed particularly dissatisfied with, and may indicate that the model needs to be adapted to make it more acceptable to this age group. While there were some aspects of dissatisfaction expressed by adolescents in each of the three treatment arms, such as feeling that therapy wasn't giving them solutions for their problems or feeling the therapist didn't care, there were also

aspects of the adolescents' dissatisfaction that seemed specific to the STPP arm. These included the adolescents finding the lack of structure, not knowing what to talk about and silence difficult, which may indicate aspects of therapy that need to be adapted when working in this context. These findings suggest that the occurrence of different types of dropout may differ between therapeutic approaches. There were few 'troubled' dropouts making it difficult to establish any clear patterns about how characteristic this type of dropout was across the different types of treatment.

6.4.1 Strengths and limitations

The strengths of this study were its mixed methods design that allowed an in-depth exploration of the phenomenon of dropout, from the perspectives of both adolescents and their therapists. The qualitative analysis was strengthened by the use of credibility and reliability checks in the development of the ideal types. Following this, further comparison of the types was conducted drawing on longitudinal quantitative data.

However, this study also had several limitations. The sample size was too small to conduct statistical analyses with respect to pre-treatment characteristics and outcomes comparing the dropout types and completers. While some descriptive differences were observed, these findings were exploratory and need to be tested in a sufficiently powered study. It is possible that the observed difference in outcomes between 'got-what-they-needed' dropouts and the other groups could be explained by other characteristics associated with dropout. Future studies should test the groups with respect to outcome while controlling for potential cofounders.

It is important to note that the sample for this study comprised those adolescents and therapists who were contactable and agreed to be interviewed after the therapy ended, so it is unknown how these types would fit with cases that did not participate in the IMPACT-ME study. It is also important to note the limitations of semi-structured interviews as a method of data collection. While this approach provides a rich account of the experiences of therapy from the perspectives of adolescents and their

therapists, there may be bias in what was reported. For instance, therapists may have been biased in not reporting their own contribution to the premature ending of therapy and adolescents may have been reluctant to share issues with their therapy. Thus, the data used in this study was based on what the participants were able to remember, willing to share and aware of. It is possible that there may have been reasons for dropout that the adolescent and therapist were not aware of or had forgotten by the time they were interviewed, as in some cases there were significant delays between the treatment ending and the interviews taking place.

It is also important to be aware of the limitations of this study given that it was in the context of an RCT, and so participants had been randomised to a treatment arm. As a result, the method of treatment assignment was not naturalistic, and dropout could potentially have been the result of violation of client preferences about the type of treatment they wanted, although none of the participants in this study explicitly stated that they chose to stop going because they were not randomised to their preferred treatment. This study should be seen as a starting point for identifying different types of treatment dropout, which could be used in future studies to see how they apply to adolescents who are offered a treatment through routine clinical practice.

Ideal type analysis also comes with limitations. The ideal types identified in this study may not be the only types of dropout, and other types would potentially be found in other samples, yet nevertheless, this approach has helped to establish a richer understanding of the phenomenon of dropout. Using this approach, vast amounts of data were condensed and summarised according to the aim of the study. It is important to note that the typology was constructed from my own point of view, as a researcher. It cannot be said whether the same types would have been constructed by another researcher with different experience and knowledge, for instance, a clinician may have interpreted the data in this study differently. Nonetheless, once the typology was defined, there was good agreement in the classification of cases to the types between myself and three independent researchers.

6.4.2   Conclusion

In Study 2, no strong evidence was found for a difference in the outcomes of adolescents who completed and dropped out of therapy in the IMPACT trial. This may have been the result of the definition of dropout covering a range of different types of dropout, and therefore the aim of this study was to try to identify more meaningful categories of dropout. An additional aim was to explore whether the characteristics of adolescents and their outcomes differed between these categories. In this study, three distinct types of therapy dropout were constructed. While the adolescents decided to stop therapy against their therapists' advice, they had somewhat different reasons for doing so and they reported several key influences as to why they stopped going to therapy: whether the therapy was helping or had helped them, their satisfaction with the treatment and external influences. This study suggests that there may be differences in outcomes when a more refined categorisation of dropout is used. 'Dissatisfied' dropouts had poorer observed outcomes compared with 'got-what-they-needed' dropouts and completers at the end of treatment. These findings suggest that 'dissatisfied' dropouts may have been less likely to get the help that brought them to CAMHS than 'got-what-they-needed' dropouts. The small sample size meant that it was not possible to explore outcomes for 'troubled' dropouts could, and so further research is required to investigate how different types of dropout are associated with outcome. These exploratory findings were based on a small sample size, yet they provide some indication that the effect of dropout on outcome may differ by dropout type.

6.4.3   Next step in this research

The most common type of dropout found in this study was 'dissatisfied' dropout, and this group warrants further investigation. 'Dissatisfied' dropout appeared to be an unfavourable ending to therapy, given that 'dissatisfied' dropouts were critical of the therapy they received and had poorer observed outcomes at the end of treatment compared with 'got-what-they-needed' dropouts and completers. Moreover, as they were not

more impaired at baseline compared to the other groups, this suggests that it was not simply because of baseline differences that they ended up dissatisfied with treatment so dropped out. This may suggest that 'dissatisfied' dropout was the result of what happened in therapy and therefore further exploration of what happens in therapy prior to 'dissatisfied' dropout is warranted. 'Dissatisfied' dropout was particularly common in STPP, with all but two of the STPP dropouts fitting with this type, and further work is needed to understand more about what happens in therapy that leads to a 'dissatisfied' dropout. Study 3 uncovered a range of issues that adolescents expressed as reasons for their decision to stop therapy. However, a number of questions remain about 'dissatisfied' dropouts. We don't know whether the therapists were doing something different with these adolescents compared with those who completed treatment. These adolescents' dissatisfaction may be to do with the specific techniques employed by the therapist, or how difficulties in the therapy were handled - or it may be more to do with the overall fit between the adolescent and their therapist. This warrants investigation of the psychotherapeutic processes and interaction styles between adolescents and their therapists in the lead up to a dissatisfied dropout, to help uncover the process by which a dissatisfied dropout occurs. Therefore, the aim for the final study in this thesis was to look inside the therapy room, to gain a rich understanding of what happened in the sessions in the lead up to a 'dissatisfied' dropout.

7 Study 4: An investigation into patterns of rupture-repair in the therapeutic alliance as warning signs for 'dissatisfied' dropout

7.1 Introduction

The aim of Study 3 was to explore whether there were different types of dropout, drawing on qualitative interviews with adolescents and their therapists, for 'dropout' cases. Using ideal type analysis, three distinct types of dropout were constructed. 'Dissatisfied' dropouts reported stopping therapy because they did not find therapy helpful and it failed to meet their needs; 'got-what-they-needed' dropouts reported stopping therapy because they did not feel a need to continue in therapy; and 'troubled' dropouts reported stopping therapy because they did not have the stability in their life to commit to the therapy at that time. 'Dissatisfied' dropout was the most common type (18/32 cases) of dropout in Study 3, and appeared to be an unfavourable ending of therapy, as these adolescents ended therapy without the agreement of their therapist, were critical of the therapy they received, and had poorer observed outcomes at the end of treatment compared with 'got-what-they-needed' dropouts and completers. They did not differ on baseline characteristics, so it did not appear that we could have predicted that they would be 'dissatisfied' dropouts. These adolescents often reported not feeling able to express their dissatisfaction to their therapists and their therapists appeared to have little awareness of these adolescents' dissatisfaction. This is likely to have limited the extent to which the therapists could address the adolescents' dissatisfaction that potentially led to their decision to stop therapy. Research is therefore needed to explore the process by which potential dissatisfaction with treatment gets left unsaid, leading to dropout. The dissatisfaction reported by adolescents in Study 3 centred around issues in the therapeutic relationship, which the clients did not feel able to express to their therapists, and therefore this study sought to further explore what happened in the therapeutic alliance prior to 'dissatisfied' dropout compared with other types of treatment endings.

7.1.1 The therapeutic alliance

The therapeutic alliance, the relationship between the therapist and client, is widely recognised as an important component of the therapeutic process, as better therapeutic alliance early in treatment has been found to be positively related to clinical outcomes (Shirk, Gudmundsen, Kaplinski, & McMakin, 2008), in-session treatment participation (Karver et al., 2008) and treatment completion (as found in Study 1). Drawing on attachment theory (Bowlby, 1988), researchers have argued that the adolescent's experience of their therapist as reliable, dependable and responsive is the foundation for collaboration in treatment (Shirk et al., 2008; Shirk & Russell, 1996). This relationship allows the adolescent to feel safe in exploring their difficulties (Shirk, Caporino, & Karver, 2010). The development of a bond between the adolescent and therapist is therefore considered necessary to facilitate the adolescent's involvement in treatment (Shirk & Russell, 1996), and it is hypothesised that the degree to which an adolescent believes that the therapist is offering an approach that can help them to accomplish their goals will enable them to work through challenging treatment tasks (Shirk & Karver, 2006). Swift and Greenberg (2015) suggest that it is the bond with the therapist that will keep a client coming back to therapy and continuing the therapeutic work, even when it gets difficult.

7.1.2 Alliance ruptures and resolution

Safran and colleagues redefined therapeutic alliance as an on-going process of negotiation between the client and therapist, characterised by moments of deterioration in the therapeutic alliance and moments in which this tension is resolved (Safran, Crocker, McMain, & Murray, 1990). Since this time, interest has grown in alliance ruptures and resolutions in therapy, which pay attention to the way in which the alliance develops and fluctuates over time. The therapeutic alliance is therefore no longer viewed as a "static phenomenon", but rather as "an on-going co-construction between patient and therapist" (Lingiardi & Colli, 2015, p.318).

A rupture in the therapeutic alliance has been defined as deterioration in the alliance between the client and therapist (Safran & Muran, 1996). While the word rupture may imply a major conflict or breakdown in the relationship, in the rupture-repair literature, the word rupture is used broadly and a rupture can range from a minor tension to a major rift in the therapeutic alliance (Safran & Muran, 1996). Lingiardi and Colli (2015) consider a rupture in the alliance to be a moment in therapy where the alliance declines. Two types of rupture have been proposed. 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). A client may express disagreement with the therapist in a collaborative way and this would not be considered a confrontation rupture; it is therefore the way in which the disagreement is expressed that differentiates a collaborative disagreement from a confrontation rupture event. The second type of rupture is withdrawal. In withdrawal ruptures, 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, and the client and/or therapist may not be aware of them (Boritz, Barnhart, Eubanks, & McMain, 2018). Typically, withdrawal markers occur in most or all therapy sessions, whereas confrontation markers occur less frequently (Lingiardi & Colli, 2015).

Alliance ruptures are events that threaten to have a negative impact on the therapeutic alliance. When the client and therapist work collaboratively to repair a rupture in the alliance, the rupture may be resolved, termed alliance resolutions (Lingiardi & Colli, 2015). The successful resolution of an alliance rupture is defined as regaining the pre-rupture level of alliance (Safran & Muran, 2000b). However, ruptures have also been considered to be important opportunities in therapy to work through problems, strengthen the alliance and work on maladaptive interpersonal processes (Safran & Muran, 1996), suggesting that working through ruptures may actually be an opportunity for therapeutic progress.

There is therefore a tension in the literature as to whether the resolution of ruptures is simply a matter of repairing the alliance to the pre-rupture level of alliance, or whether rupture resolution is in fact an active ingredient of change in itself. There is empirical support for the notion that resolution of ruptures may be an opportunity for therapeutic progress.

Research has found different trajectories of therapeutic alliance over the course of therapy, that is, how the alliance quality changes from the beginning to the end of treatment. While some clients had stable scores of alliance throughout the course of therapy, others were found to have a linear growth pattern (whereby alliance scores increased over the course of therapy), while some had a quadratic growth pattern (Kivlighan Jr. & Shaughnessy, 2000). The quadratic pattern represents a high-low-high pattern of alliance, and is considered to represent a pattern of rupture and repair, and this pattern was found to be associated with better outcomes than stable or linear alliance patterns (Kivlighan Jr. & Shaughnessy, 2000). It has been argued that working through ruptures in the alliance may be an important part of the therapeutic process, through which the client can learn about their own "maladaptive patterns of interpersonal relating" (Patton, Kivlighan, & Multon, 1997, p. 204). Therefore the rupture-repair process may help clients to address their interpersonal difficulties, which may explain why quadratic alliance patterns are linked with better clinical outcomes. Indeed, a meta-analysis found a significant positive relationship between the presence of rupture-repair episodes during treatment and treatment outcome ($r = 0.24$, CI = 0.09: 0.39), indicating a medium effect size (Safran, Muran, & Eubanks-Carter, 2011). However, this meta-analysis was based on only three available studies with a small number of clients ($N = 148$). However, more recently, a larger ($N = 605$) naturalistic study found that clients with unresolved ruptures had significantly poorer clinical outcomes compared to those where there were no ruptures or where ruptures were resolved (Larsson, Falkenström, Andersson, & Holmqvist, 2018). The authors also found that in longer treatments, when ruptures were successfully resolved, clients had significantly better clinical outcomes compared with clients where ruptures did not occur in their sessions (Larsson et al.,

2018). This study controlled for therapist effects, and while the sample was heterogeneous in terms of the client group and the treatments they received, this study provides support for an effect of ruptures and their resolution on treatment outcomes.

Overall, the limited available evidence does support the presence of a relationship between resolution of ruptures and clinical outcomes. However, much less is known about the process by which therapists resolve ruptures in the alliance, as well as how and why ruptures don't get resolved. Moreover, the existing literature is from studies with adult clients, so may not necessarily transfer to therapy with adolescent clients. A series of studies using task analysis (Greenberg, 2007) have attempted to address this gap in the literature, with the aim of seeking to develop a model of how ruptures in the therapeutic alliance are resolved. Using task analysis, Safran and Muran (2000a) developed a model of rupture-repair processes, which comprised four stages for resolving a rupture in the alliance, in the context of Brief Relational Therapy. Brief Relational Therapy is an integrative model of treatment, drawing on psychoanalysis and humanistic psychotherapy, which places emphasis on exploring and working through alliance ruptures (Safran, Muran, Samstag, & Winston, 2005). According to this model, the first stage in resolving a rupture is for the therapist to recognise the rupture and attempt to address it by inviting the client to explore the rupture event. Secondly, the therapist and client explore the rupture, focusing on the here-and-now of the therapeutic relationship. Thirdly, they explore avoidance manoeuvres, which may include the clients' coping strategies or actions that function to avoid or manage emotions associated with the rupture. The final stage is where the therapist and client work together to clarify the clients' wishes or needs that underlie the problematic interpersonal pattern between therapist and client (Safran & Muran, 2000a). The final stage may differ by rupture type. In withdrawal ruptures, the therapist helps the client to express their wants and needs, so that the client is more able to tell the therapist what they need from them and help the therapist to notice when their needs are being missed. In confrontation ruptures, the focus is on helping the client to gain access to vulnerable feelings, through the

therapist maintaining an open, non-defensive stance, as well as showing willingness to explore how they have contributed to ruptures in the alliance (Eubanks-Carter, Muran, & Safran, 2010; Safran & Muran, 2000a).

The above models were developed in the context of alliance-focused treatment, and later studies have sought to investigate resolution processes in other types of treatment. Another study used task analysis to develop a model of how ruptures are resolved in cognitive behavioural therapy (Aspland, Llewelyn, Hardy, Barkham, & Stiles, 2008). Their theoretical model of how a rupture should be resolved, as with Safran and Muran's (2000a) model, specified that the first step for resolving a rupture was for the therapist to notice the rupture. However, when the model was tested on actual CBT sessions, they found that therapists did not tend to explicitly acknowledge when a rupture had occurred, and rupture-repair mostly occurred through a change in the therapists approach rather than explicit acknowledgement of and working through the rupture (Aspland et al., 2008). It was concluded that progress towards resolving ruptures was made through the therapists focusing on issues salient to the clients, thus improving the collaboration between them (Aspland et al., 2008). The finding that CBT therapists did not explicitly acknowledge when a rupture occurred may be a reflection of a difference in how CBT therapists handle ruptures, as they may be less likely to focus on the 'here-and-now' of the therapeutic relationship compared with psychotherapists working in a more relational or psychoanalytic treatment. However, it is also important to acknowledge that the ruptures in this study were primarily withdrawal rupture events, and therefore it is possible that CBT therapists may manage withdrawal and confrontation ruptures differently, particularly as withdrawal ruptures are likely to be more difficult to identify and therefore may be less likely to be explicitly addressed. As yet, little is known about how CBT therapists manage confrontation ruptures and if/how this differs from the process of working through withdrawal ruptures.

7.1.3 The therapeutic alliance and dropout

In Study 1, poorer therapeutic alliance reported by the adolescent early in treatment was found to predict dropout, when controlling for age, antisocial behaviour and scores of verbal intelligence. This fits with findings from the most recent meta-analysis which found poorer therapeutic alliance, as reported by the young person, to predict treatment dropout (de Haan et al., 2013). However, the effect size was small (d = 0.41), while deterioration in child-reported alliance was found to be a much stronger predictor of dropout (d = 1.55; de Haan et al., 2013). Deterioration in alliance scores may reflect unresolved ruptures, making the study of rupture-repair a potentially fruitful avenue towards improving our understanding of the relationship between the therapeutic alliance and dropout; yet this is an area that has to date been neglected from the literature. The relationship between unresolved ruptures and dropout has been subjected to far less empirical research than the study of rupture resolution and outcomes. However, there is some limited evidence for an effect of unresolved ruptures on dropout, with higher resolution of ruptures predictive of better retention in treatment in adult clients receiving time-limited psychotherapy for personality disorders (Muran et al., 2009). Moreover, the aspects of therapy that 'dissatisfied' dropouts were critical of in Study 3 fit within Bordin's (1979) definition of the therapeutic alliance, including issues with the tasks and goals for treatment, as well as issues in the therapeutic relationship. In Study 3, 'dissatisfied' dropouts appeared not to have expressed their dissatisfaction with therapy to their therapist, again, replicating findings from previous studies (Farber, 2003; Gibson & Cartwright, 2013; Henkelman & Paulson, 2006; Hill et al., 1993; Kelly, 1998; Paulson et al., 2001; Regan & Hill, 1992; Rhodes et al., 1994; von Below & Werbart, 2012; Watson & Rennie, 1994). This meant that the therapists generally appeared to be unaware of the issues experienced by the adolescents in treatment; potentially reflecting unresolved withdrawal ruptures in the therapeutic alliance for 'dissatisfied' dropouts.

The dissatisfaction with therapy expressed by 'dissatisfied' dropouts may have manifested in the sessions as withdrawal ruptures,

given that the therapists, when recalling the therapy retrospectively, often did not seem to be aware of the issues adolescents had with therapy. As the therapists did not appear to be aware of the adolescents' criticisms of therapy, it is possible that there were unresolved withdrawal ruptures within sessions that may have led to 'dissatisfied' dropout. It would be helpful to uncover the types of ruptures that are characteristic in sessions prior to 'dissatisfied' dropout, as well as whether unresolved ruptures occur more frequently prior to 'dissatisfied' dropout, as these could help to inform clinicians about warning signs of adolescents' disengagement from treatment. Moreover, if unresolved ruptures appear to indicate risk of 'dissatisfied' dropout, this would inform clinical practice about a specific targetable aspect of treatment that could be addressed. Investigating therapeutic alliance and rupture-repair processes may make it possible to identify what happens in the therapeutic alliance that present as warning signs for 'dissatisfied' dropout.

7.1.4 Aim of Study 4

The aim of Study 4 was to investigate the role of the therapeutic alliance and rupture-repair processes in the lead up to 'dissatisfied' dropout, compared with 'got-what-they-needed' dropout and completers. This had the potential to elucidate warning signs prior to 'dissatisfied' dropout. The secondary aim was to investigate alliance and rupture-repair patterns in the lead up to 'got-what-they-needed' dropout. 'Got-what-they-needed' dropout was a newly developed concept and this study had the potential to further differentiate between the dropout types identified in Study 3, with regards to patterns of therapeutic alliance and rupture-repair. Due to the exploratory aims of this study, no specific hypotheses were tested. However, it was broadly expected that there would be a pattern of poorer therapeutic alliance, greater frequency of withdrawal and confrontation ruptures, and poorer resolution of ruptures for 'dissatisfied' dropouts compared with completers. It was expected that patterns of alliance and rupture-repair for 'got-what-they-needed' dropouts would be more similar to completers than 'dissatisfied' dropouts.

7.2   Method

7.2.1   Sample

The sample for Study 4 was the adolescents who were identified as 'dissatisfied' dropouts in the previous study and a sample of matched completers formed a comparison group. The completers were sampled to provide a proportionate number of cases in each of the treatment arms to the 'dissatisfied' dropouts. 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. Four 'dissatisfied' dropouts from Study 3 did not have audio recordings of their therapy sessions available so were excluded from this study. Three of the fifteen 'dissatisfied' dropouts did not have an available completer case matched by therapist so these completer cases were randomly sampled from another therapist in the same treatment arm, where the audio recordings were available.

'Got-what-they-needed' dropouts were included towards a secondary aim and thus were not matched to completer cases. Three 'got-what-they-needed' dropouts from Study 3 did not have audio recordings of their therapy sessions available so were excluded from this study.

The sample for this study therefore comprised 35 cases: 14 'dissatisfied' dropouts, 14 matched completers and 7 'got-what-they-needed' dropouts (see Table 22).

Table 22. Sample for Study 4: Number of cases in each treatment arm and group

Group	BPI	CBT	STPP	Total
'Dissatisfied' dropouts	3	2	9	14
Matched completers	3	2	9	14
'Got-what-they-needed' dropouts	3	3	1	7
Total	9	7	19	35

BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

7.2.2 Data

Two therapy sessions, one early and one late, were selected for each of the cases in the sample to be rated on the measures described below. Early sessions, where possible, were the second attended therapy session. This sought to provide an insight into what happened early in treatment, and was preferable to using the first session, as this was often an introductory session. Where the second session was not available ($N = 3$), the closest available session was selected instead. Late sessions for 'dissatisfied' and 'got-what-they-needed' dropout cases were the final recorded therapy session prior to them stopping therapy. 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. This sought to capture what happened in the sessions at the point at which dropout occurred, accounting for the variance in when dropout occurred for the sample.

7.2.3 Measures

I listened to each session in its entirety, and rated it on two observational measures. I completed the ratings for all sessions, which meant that having undertaken the previous study, I was not blind to the therapy ending for participants. However, a random sub-set of 20% of the sessions were double-rated by a postgraduate researcher who was blind to the therapy ending. To establish inter rater reliability, the intraclass

correlation coefficient (ICC) was calculated. According to Cicchetti (1994), good reliability is 0.60 to 0.74 and excellent reliability is 0.75 or greater. The following measures were used:

7.2.3.1 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 provides a global assessment of the therapeutic alliance in the rated sessions. Scores are the summation of all item scores, with two items being reverse scored. Total scores on the WAI-O range from 12-84, with higher scores reflecting stronger therapeutic alliance. The measure was the observer version of the self-report version used in Study 1. It was selected to provide ratings of the therapeutic alliance in the specific therapy sessions of interest for this study.

Good reliability on the WAI-O between the two raters was established (ICC = 0.65).

7.2.3.2 Rupture Resolution Rating System (3RS)

The 3RS is an observer-based system for detecting ruptures and rupture resolution (Eubanks, Muran, & Safran, 2015). 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, raters determine if a confrontation rupture (when the client moves against the therapist by expressing anger or dissatisfaction), or a withdrawal rupture (when the client either moves away from the therapist or the client moves toward the therapist, but in a way that denies an aspect of his or her experience) has occurred in the session. For each detected confrontation or withdrawal rupture event, raters choose a specific subtype of rupture event from a list of withdrawal (e.g. denial) and

confrontation rupture markers (e.g. complains about the progress of therapy) and the strategies that the therapist used to try to resolve the rupture (e.g. the therapist clarifies a misunderstanding, therapist changes tasks or goals). The 3RS coding manual is shown in Appendix 31, which shows each of the individual rupture markers and resolution strategies. The score sheet is shown in Appendix 32. Scores of the following are obtained from coding:

i.   Number of withdrawal rupture markers that occurred in the session.

ii. Significance of withdrawal ruptures in the session. This captures the extent to which withdrawal ruptures appeared to impact on the alliance, rated on a 5-point scale, with higher scores reflecting greater impact on the alliance (1 = no impact; 2 = minor impact; 3 = some impact; 4 = moderate impact; 5 = significant impact).

iii. Number of confrontation rupture markers that occurred in the session.

iv. Significance of confrontation ruptures in the session. This captures the extent to which confrontation ruptures appeared to impact on the alliance, and is rated on a 5-point scale, with higher scores reflecting greater impact on the alliance (1 = no impact; 2 = minor impact; 3 = some impact; 4 = moderate impact; 5 = significant impact).

v.   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 therapist contribution to ruptures (1 = no, 2 = maybe, 3 = yes, somewhat, 4 = yes, moderately, 5 = yes, mostly).

vi. 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).

Excellent reliability was established between the two raters for withdrawal rupture frequency (ICC = 0.76), withdrawal rupture significance (ICC = 0.71), confrontation rupture frequency (ICC = 0.86) and confrontation

rupture significance (ICC = 0.81). Reliability was good on ratings of therapist contribution to ruptures (ICC = 0.64) and resolution of ruptures (ICC = 0.69).

Although the 3RS captures the extent to which the therapist contributed to ruptures, it limitation is that it does not capture the ways in which the therapist contributed to ruptures. The developer of the 3RS suggested that researchers should report the different ways in which therapists contribute to ruptures, to help inform theory about ruptures as well as for further development of the measure (Eubanks, 2017). When sessions were rated as the therapist having contributed, or maybe having contributed to ruptures, I made notes about the way in which I perceived that the therapist had contributed to ruptures, to provide an additional source of data for therapists contributions to ruptures.

7.2.4 Data analysis

7.2.4.1 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 patterns for the three groups (completers; 'dissatisfied' dropouts; 'got-what-they-needed' dropouts). There was an insufficient sample size to conduct multivariate analysis due to the number of variables and nested structure of the dataset.

7.2.4.2 Qualitative analysis of therapist's contribution to ruptures

In addition to the quantitative data derived from the measures described above, qualitative analysis were conducted to explore the therapist's contribution to ruptures. The rationale for this was that a formal rating scale of therapist contributions 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.

Having created detailed descriptions of the ways in which therapists appeared to have contributed to ruptures in the sessions while listening to the therapy sessions, these descriptions were categorised to form an observational coding system of the different ways in which

therapists appeared to have contributed to ruptures. 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.

7.3 Results

Results will be presented relating to the therapeutic alliance, ruptures and resolution of ruptures, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts. Scores of therapeutic alliance, rupture frequency, rupture significance, resolution and resolution strategies were similar between the three treatment arms so presented results do not show the breakdown for each treatment arm. For reference, descriptive statistics by treatment arm are provided in Appendices 33-35.

7.3.1 Therapeutic alliance

The average scores and their distributions on the WAI-O are shown in Figure 17. This shows that on average, in early session, 'dissatisfied' dropouts had poorer therapeutic alliance ($M = 49.57$, $SD = 11.39$) compared with completers ($M = 59.43$, $SD = 9.78$) and 'got-what-they-needed' dropouts ($M = 59.14$, $SD = 6.49$). Completers and 'got-what-they-needed' dropouts both tended to have better therapeutic alliance in early sessions, and there was less variation in their scores, compared with 'dissatisfied' dropouts. Likewise, in the late session, therapeutic alliance scores were higher for both completers ($M = 60.29$, $SD = 6.97$) and 'got-what-they-needed' dropouts ($M = 57.57$, $SD = 6.24$) compared with 'dissatisfied' dropouts ($M = 46.14$, $SD = 11.38$). The interquartile ranges were smaller for late sessions compared with early sessions, indicating less variation in therapeutic alliance scores for completers and 'got-what-they-needed' dropouts in late sessions. 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

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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 17. Boxplot to show the distribution of Working Alliance Inventory scores for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
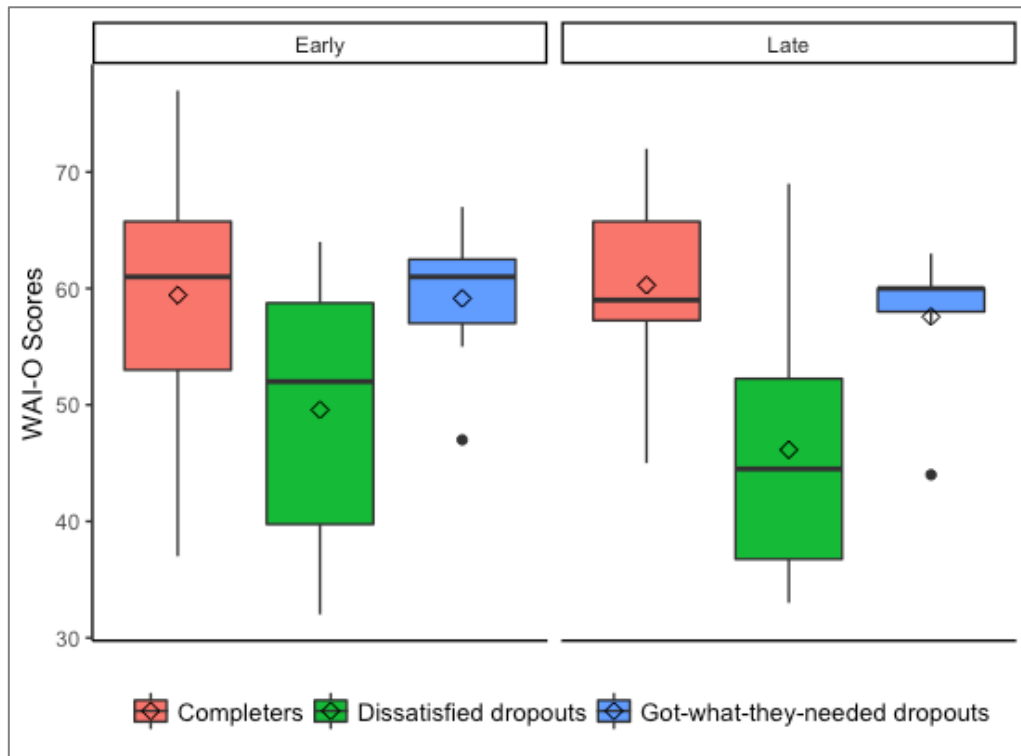
Scores derived from the Working Alliance Inventory – Observer (WAI-O) version. The diamond indicates the mean.

7.3.2 Ruptures

The average frequency and significance ratings for withdrawal and confrontation ruptures are shown in Table 23.

Table 23. 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

Rupture		Group					
		Completers ($N = 14$)		Dissatisfied dropouts ($N = 14$)		Got-what-they-needed dropouts ($N = 7$)	
		Early	Late	Early	Late	Early	Late
Withdrawal	**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)
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	2.21 (3.62)	1.21 (1.93)	2.00 (3.96)	3.07 (2.84)	1.00 (1.41)	1.14 (1.77)

Scores derived from the Rupture Resolution Rating System.

7.3.2.1 Withdrawal rupture frequency

Figure 18 shows the distribution of the number of withdrawal ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions (for descriptive statistics, see Table 23). The average number of withdrawal ruptures was higher for 'dissatisfied' dropouts compared with completers. The average number of withdrawal ruptures was lowest for 'got-what-they-needed' dropouts. Although the mean number of withdrawal ruptures was greater for 'dissatisfied'

dropouts, more variation in the number of withdrawal ruptures was seen for the completers, shown by comparatively taller boxplots. For 'got-what-they-needed' dropouts in early sessions, the boxplot for withdrawal ruptures is short, showing that as well as having the lowest mean, there was little variation in the number of withdrawal ruptures in this group. The boxplot is comparatively much taller in late sessions for 'got-what-they-needed' dropouts, showing greater variation in the number of withdrawal ruptures in their late sessions compared with their early sessions.

Figure 18. Boxplot to show the distribution of the number of withdrawal ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
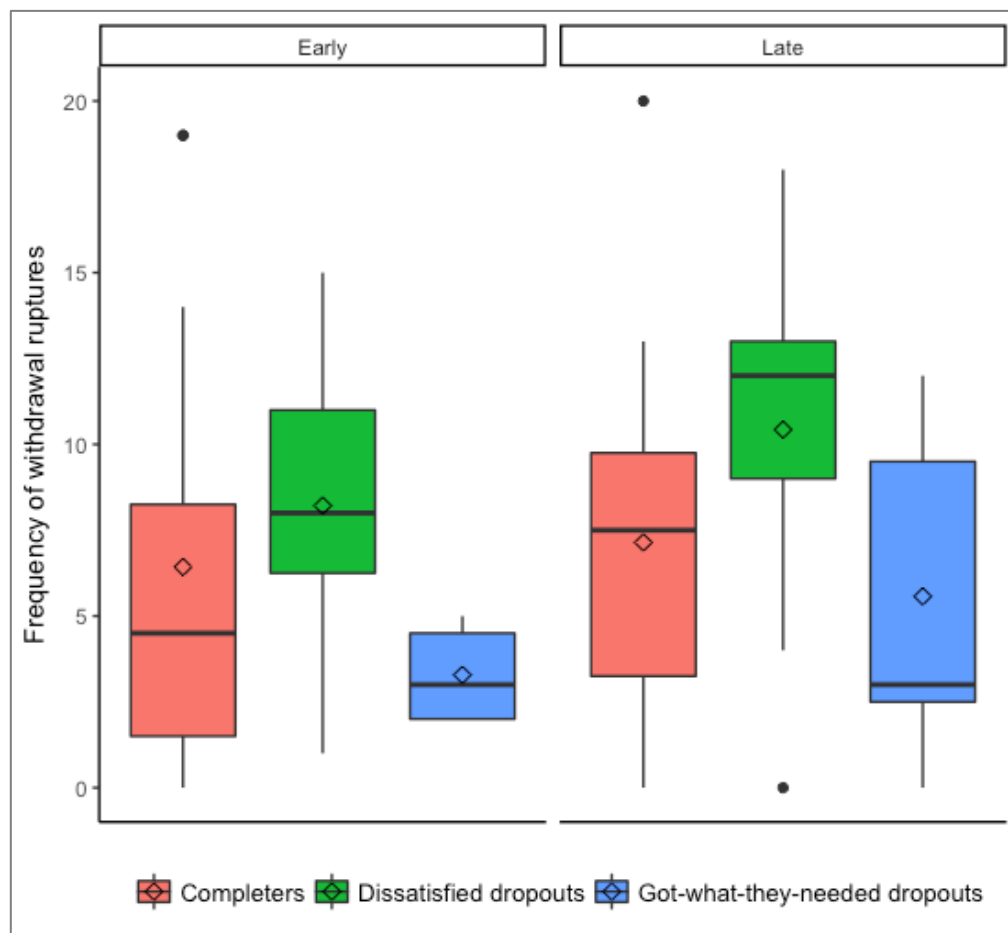
Scores derived from the Rupture Resolution Rating System. The diamond indicates the mean.

Figure 19 shows the proportion of sessions that each withdrawal rupture marker occurred in at least once, for each group, in early and late sessions. The observed withdrawal markers were similar between the groups. Minimal response was the most commonly occurring withdrawal marker, observed in the majority (89%) of sessions, with little difference between groups. The deferential/appeasing withdrawal marker was observed frequently in all three groups, in 37% of sessions, again with little difference between groups. In early sessions, avoidance was observed in more sessions of 'dissatisfied' dropouts (64%) than completers (36%) and 'got-what-they-needed' dropouts (14%). There was little difference between the occurrence of avoidance markers in late sessions between groups (observed in 54% of late sessions). In late sessions, there was relatively little difference between groups in the withdrawal markers that were observed, although denial was observed more frequently in sessions of 'dissatisfied' dropouts (57%) than completers (21%) and 'got-what-they-needed' dropouts (14%).

Figure 19. Bar chart to show the proportion of sessions that withdrawal rupture markers occurred in at least once, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
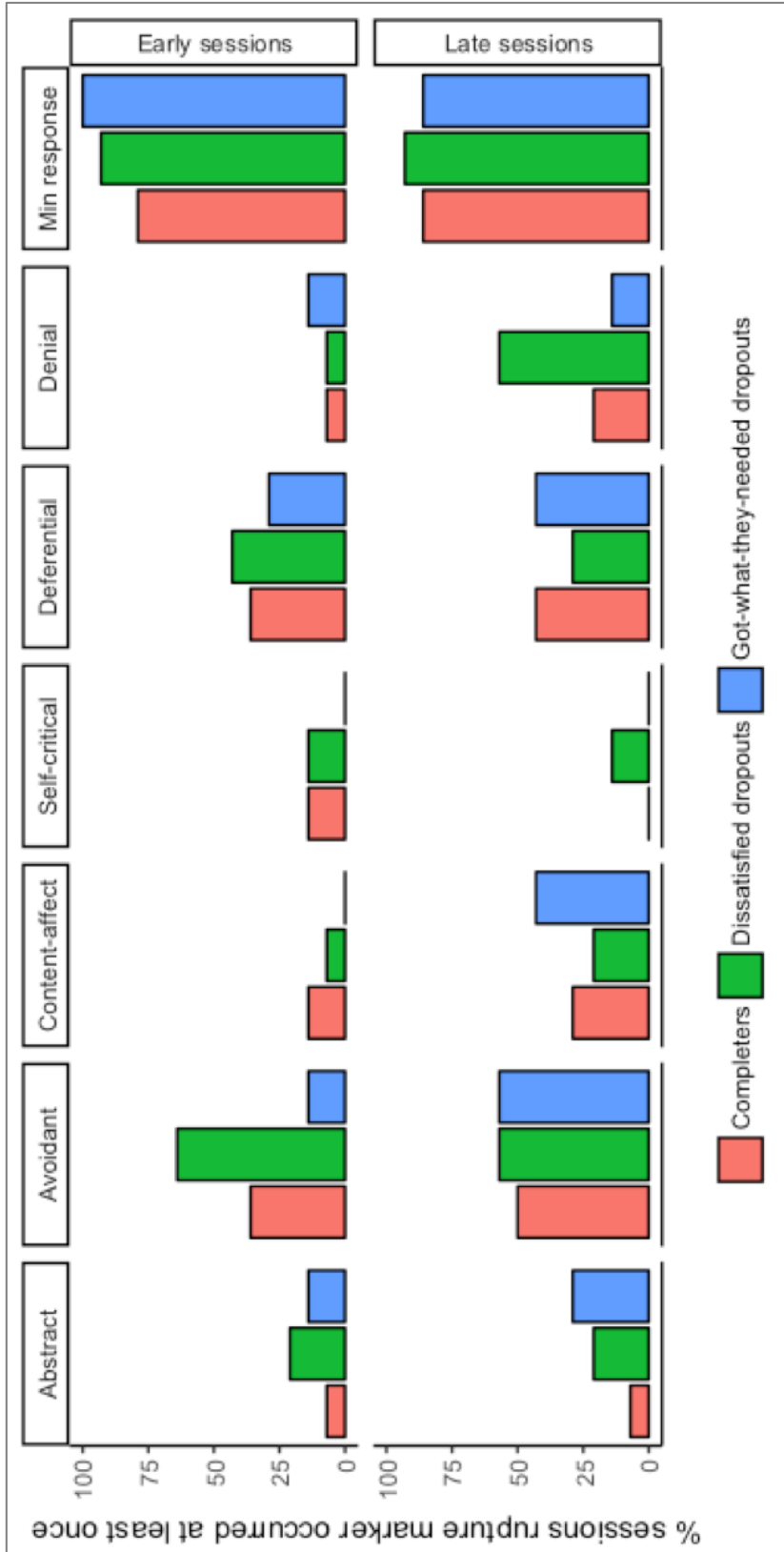
Scores derived from the Rupture Resolution Rating System. Abstract = abstract communication; Avoidant = avoidant storytelling and/or shifting topic; Content-affect = content/affect split; Self-critical = self-criticism and/or hopelessness; Deferential = deferential and appeasing towards therapist; Denial = denying a feeling state or importance of relationships or events; Min response = minimal response.

7.3.2.2   *Withdrawal rupture significance ratings*

Figure 20 shows the average and distribution of significance ratings of withdrawal ruptures for each group, in early and late sessions (for descriptive statistics, see Table 23). Significance ratings refer to the impact that ruptures had on the alliance, with higher ratings reflecting greater impact. Significance ratings of withdrawal ruptures were similar for completers and 'got-what-they-needed' dropouts, with average significance ratings being two or below, in 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. Significance ratings of withdrawal ruptures were slightly higher for 'dissatisfied' dropouts, compared with the other groups. The significance ratings reflect that on average, withdrawal ruptures were rated as having some impact on the alliance for 'dissatisfied' dropouts.

Figure 20. Boxplot to show significance ratings for withdrawal ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
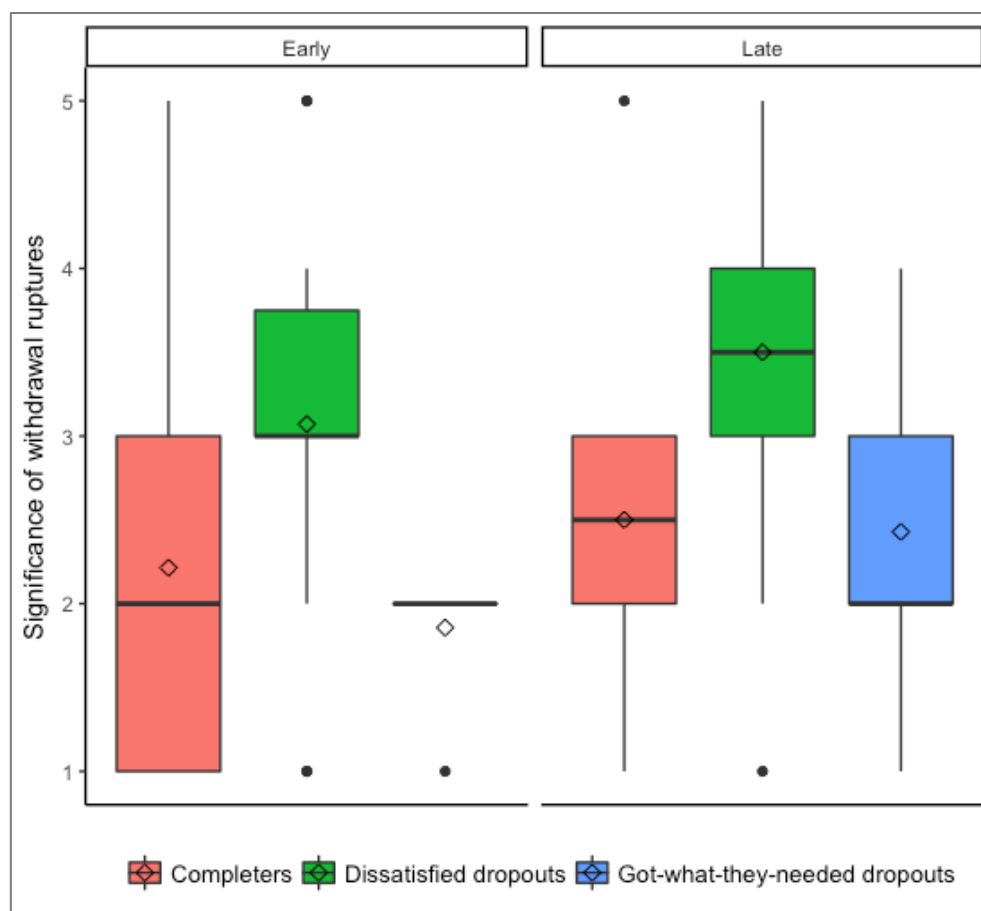
Scores derived from the Rupture Resolution Rating System. The diamond indicates the mean. Significance ratings refer to impact of withdrawal ruptures on alliance: 1 = no impact; 2 = minor impact; 3 = some impact; 4 = moderate impact; 5 = significant impact.

7.3.2.3 Confrontation rupture frequency

Figure 21 shows the distribution of the number of confrontation ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions (for descriptive statistics, see Table 23). The boxplots show that confrontation ruptures occurred relatively infrequently 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 number of confrontation ruptures was seen for 'dissatisfied' dropouts

between early and late sessions. By the late sessions, the boxplot for 'dissatisfied' dropouts was much taller than for the other groups, indicating much greater variation in the number of confrontation ruptures in late sessions for 'dissatisfied' dropouts.

Figure 21. Boxplot to show the distribution of the number of confrontation ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
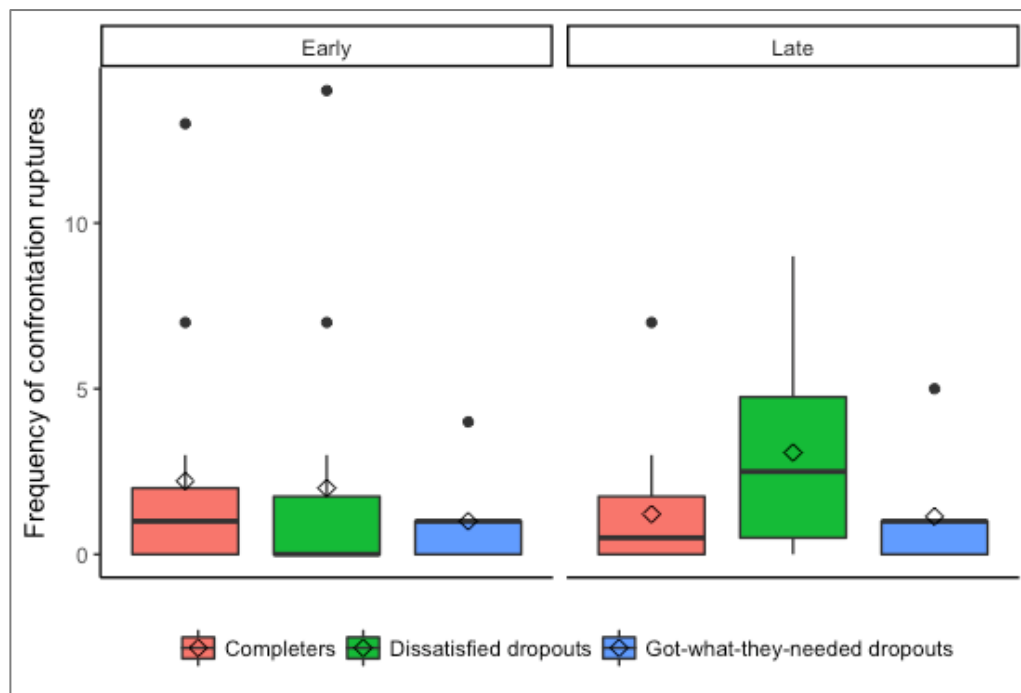
Scores derived from the Rupture Resolution Rating System. The diamond indicates the mean.

Figure 22 shows the proportion of sessions that each of the confrontation ruptures markers occurred in at least once, for each group, in early and late sessions. This shows that complaints about the activities in therapy were observed in a substantial minority of sessions in all groups, with this marker being observed in 26% of all early sessions and 37% of all late sessions.

Reject intervention was the most observed confrontation marker for completers in early sessions, observed in 57% of sessions. This was substantially more than observed in the early sessions for both 'dissatisfied' dropouts (29%) and 'got-what-they-needed' dropouts (14%).

By the late sessions, reject intervention was observed more for 'dissatisfied' dropouts, in 57% of sessions, compared with 21% of completer sessions. Reject intervention was not observed in any of the late sessions with 'got-what-they-needed' dropouts.

In early sessions, complaints about the parameters of therapy was observed more for completers (21% of sessions) and 'got-what-they-needed' dropouts (29% of sessions) compared with 'dissatisfied' dropouts (7% of sessions). In late sessions, complaints about the parameters of therapy was observed in the same proportion of session in each group, in 14% of sessions.

Defensive rupture markers were observed in few completer sessions and no sessions of 'got-what-they-needed' dropouts. However, an increase in defensive markers was observed for 'dissatisfied' dropouts between early (14% of sessions) and late sessions (21% of sessions).

Figure 22. Bar chart to show the proportion of sessions that confrontation rupture markers occurred in at least once, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
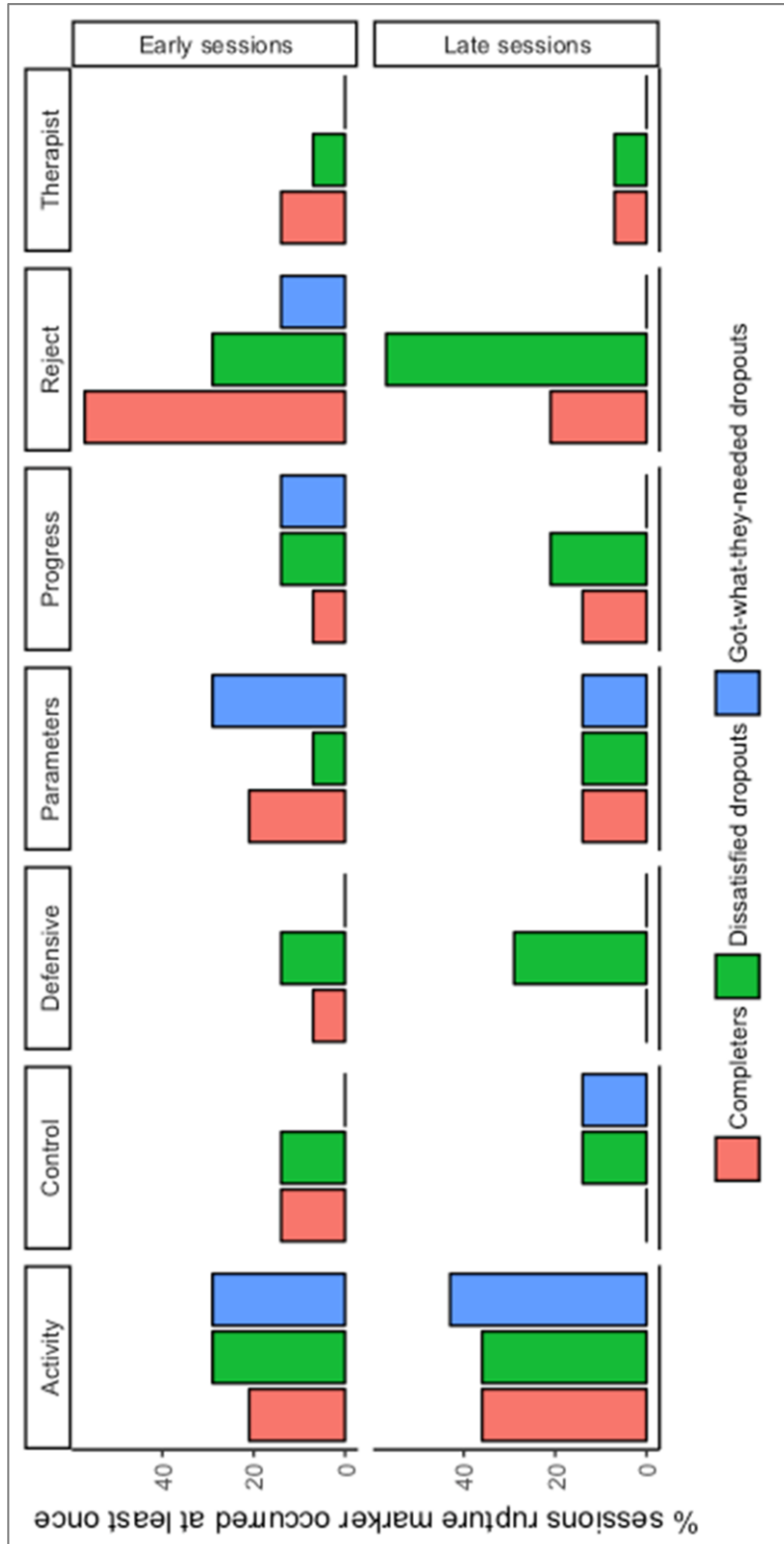
Scores derived from the Rupture Resolution Rating System. Activity = complaints about activities of therapy; Control = efforts to control/pressure therapist; Defensive = defends self against therapist; Parameters = complaints about parameters of therapy; Progress = complaints about progress in therapy; Reject = rejects therapist intervention; Therapist = complaints about therapist.

7.3.2.4   Confrontation rupture significance ratings

Figure 23 shows the significance ratings for confrontation ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions (for descriptive statistics, see Table 23). The significance ratings of confrontation ruptures were similar for completers and 'got-what-they-needed' dropouts, with the mean significance rating being below two. This shows that on average, confrontation ruptures were rated as having no or low impact on the alliance for completers and 'got-what-they-needed' dropouts. Similarly, confrontation ruptures were rated as having no or low impact on the alliance for 'dissatisfied' dropouts in early sessions. However, confrontation ruptures were rated as greater in significance in late sessions for 'dissatisfied' dropouts, and the variation in confrontation significance scores was much greater for 'dissatisfied' dropouts compared with the other groups. This shows an increase in the significance of confrontation ruptures between early and late sessions for 'dissatisfied' dropouts.

Figure 23. Boxplot to show significance ratings for confrontation ruptures for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
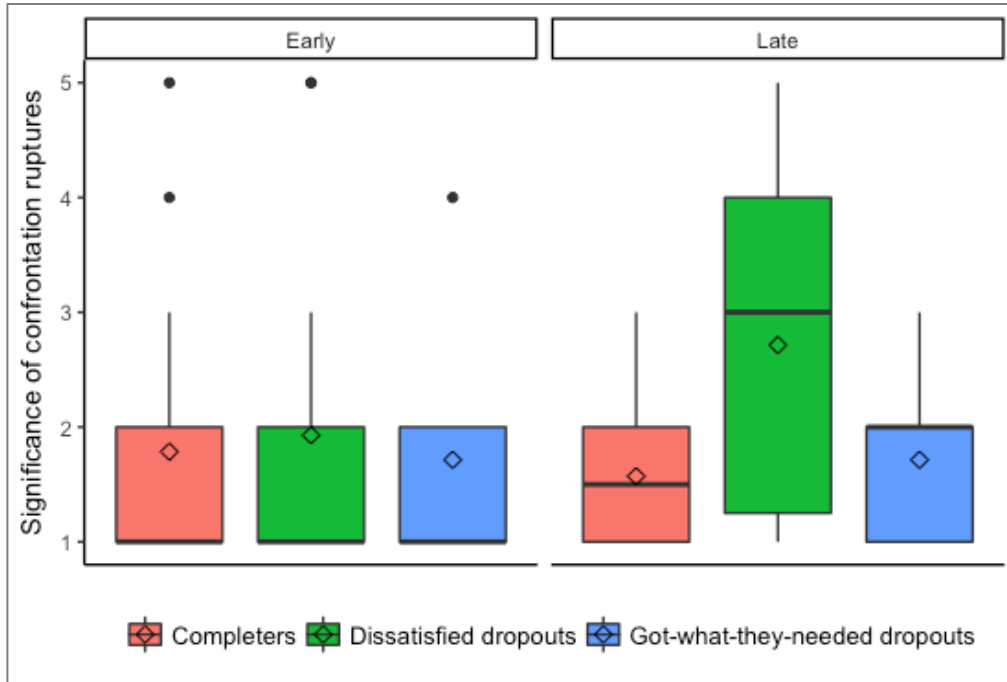
Scores derived from the Rupture Resolution Rating System. The diamond indicates the mean. Significance ratings refer to impact of confrontation ruptures on alliance: 1 = no impact; 2 = minor impact; 3 = some impact; 4 = moderate impact; 5 = significance impact.

7.3.3 Therapist contribution to ruptures

Table 24 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%). 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 for '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, compared with therapists in completer and 'got-what-they-needed' dropout cases.

Table 24. The extent to which the therapist was rated as having caused or exacerbated ruptures during the session

Did therapist contribute 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).

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 the descriptions of how therapists had contributed to ruptures led to the development of an observational coding system of therapist contributions to ruptures. 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 different ways in which therapists appeared to have contributed to ruptures. The cases presented have been assigned pseudonyms to maintain their anonymity, and any identifiable information has been altered or removed.

7.3.3.1 Therapist minimal response

Therapist minimal response was the most common way in which therapists were observed as seeming to have contributed to ruptures. This was observed in 11 of the 24 sessions. Ten of these were in the STPP arm, while one was in the CBT arm. 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 expressed from the start of the session: "I don't know what to say". The majority of the session was silent, only broken with Riley expressing her difficulty with not knowing what to say. Fifteen minutes in to the session, the following interaction took place:

> *Adolescent: 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?**
> *Adolescent: Was I meant to say something?*
> **Therapist: What do you mean?**
> *Adolescent: 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?**
> *Adolescent: I don't know, I really don't know. I don't really know what to talk about.*
>
> Riley, 17, female, completed treatment from STPP

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", thus demonstrating openness with what she wanted from the therapist. Throughout the session, the therapists non-directive approach was met with minimal response rupture markers from Riley, who became increasingly withdrawn throughout the session.

In some cases, the therapists minimal response led to the adolescent becoming confrontational, being very expressive with complaints about the therapy. For instance, in Ada's second session, after a one minute silence, she said:

> *Adolescent: What do you want? I just don't know what to say. Aghrr [Ten second silence] this is scary now, come on, what are my meant to do? [Two second silence]*
> **Therapist: It sounds like you feel erm, you know, if there's a silence or bit of a space it, we should fill it very quickly**
> *Adolescent: Yeah I hate silence. Not a big fan*
> **Therapist: But I was thinking when you sort of said what should I do, maybe you were saying you felt a bit helpless**

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> *Adolescent: I just don't know what do, cos I'm new to this whole*
> *I'm not gonna say anything until you start type thing*
> **Therapist: You think that's what I'm doing?**
> *Adolescent: Well yeah [Five second silence]*
> Ada, 18, female, 'dissatisfied' dropout from STPP

These examples show the typical way in which therapist minimal response appeared to cause or exacerbate ruptures, resulting in the adolescent becoming more withdrawn, or even confrontational towards the therapist.

7.3.3.2 Persisting with a therapeutic activity

In ten sessions, the therapist seemed to have contributed to ruptures by persisting with a therapeutic activity that the adolescent had rejected, was not engaging in or seemed to have led them to withdraw. This was observed in all three treatment arms (BPI = 3; CBT = 2; STPP = 5). 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 adolescent tended to be talking very openly about their difficulties, including experiences of abuse, risk issues and financial concerns. Prior to the rupture, the adolescent was working collaboratively with the therapist. However, the therapist's intervention then seemed to shut down the adolescent's emotional experience.

For example, in the final session prior to Hayley stopping therapy, she had explained to her therapist about the significant financial concerns that her family were experiencing, such as her parents being unable to afford basic costs, such as food and rent. Hayley was very open in sharing the difficulties her family were experiencing and sounded very emotional when talking about these issues. In response, the therapist focused on asking practical questions, such as "do you have some income?". The adolescent explained she was entitled to a grant for the college course she was attending, but that it may not be paid due to her not having a bank account:

> *Adolescent: Probably won't even be able to get that [grant]*
> *because mum hasn't got money to give me to open up a bank*
> *account.*
> **Therapist: How much do you need to open a bank account?**
> *Adolescent: I think it's about a fiver or a tenner, I don't know*
> *[silence]*
>
> Hayley, 17, female, 'dissatisfied' dropout from CBT

The therapist focusing on practicalities, such as the amount she would need to open a bank account, appeared to lead the adolescent to withdraw, indicated by a withdrawal rupture marker when she goes silence after responding to the therapist's question. Here, there was a notable shift from the adolescent talking very openly to responding minimally to the therapist's questions and then going silent. The therapist then persisted with this focus on the practicalities of opening a bank account:

> **Therapist: But there must some money, it's not a long term**
> **isn't it, five pounds or ten pounds, just to get your money in**
> *Adolescent: Yeah but I've asked mum and she can't give it to me,*
> *I've asked (sister), she can't give it to me (pause)*
> **Therapist: So did they say that they haven't got the money to**
> **give you?**
> *Adolescent: Yeah*
> **Therapist: Even knowing that your grant will go into there?**
> *Adolescent: Yeah [silence]*

Following this, there was a lengthy silence. The focus on the practicalities of Hayley's financial situation did not seem to be in tune with her emotional needs. Thus, the therapist's interventions throughout the session appeared very much focused on the practicalities of dealing with Hayley's situation, but ultimately seemed to lead to her withdrawing from the therapist. Hayley did not return to therapy after this session.

Similarly, in Selena's final session 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?**

> *Adolescent: Yeah but I know it's just not going to happen any time soon*
> **Therapist: So you don't think that's achievable?**
> *Adolescent: 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?**
> *Adolescent: I'm not even sure*
>
> Selena, 17, female, 'dissatisfied' dropout from BPI

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

In these sessions, it seemed that the therapist may not have been focused on the issues most pertinent to the adolescent or on their emotional experience, which potentially led to the adolescent withdrawing from the therapist.

7.3.3.3 Focus on risk

In three sessions, the therapist was seen to cause ruptures due to focusing on risk issues (BPI = 2; STPP = 1). This was where there was a potential need to break confidentiality or to involve other agencies, which conflicted with the wishes of the adolescent. This tended to be the result of the therapist describing the limits of confidentiality, which conflicted with the adolescent's wishes. An example of this occurred in the fifteenth session with Chantelle, after which she did not return to therapy. In this session, Chantelle disclosed a risk issue to her therapist, who then discussed needing to speak to their supervisor to decide whether any action needed to be taken. Chantelle then became concerned about whether this would result in involvement from social services:

> *Adolescent: But are you going to get social services involved?*
> **Therapist: I wouldn't do that before talking to you about it**
> *Adolescent: I don't want them involved*

> **Therapist: Ok. Well at the moment I'm not sure that we need to get them involved**
> *Adolescent: 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*
> Chantelle, 14, female, 'dissatisfied' dropout from STPP

After this moment, Chantelle shifts between withdrawing from the therapist, for instance by answering several phone calls, to becoming confrontational by pressuring the therapist not to involve social services, stating that she will run away from home if social services are contacted:

> *Adolescent: I will run away. I can promise now, no one will ever see me. Not even (friend). I don't like social services and if I find out they've already, they're trying to get involved in my business, it's gonna get worse, I don't like them and I never have and I never will*

This encounter appeared to cause a notable rift between Chantelle and her therapist. The therapist was very much focused on managing the risk situation and made attempts to reassure Chantelle that "I'm not sure that we need to get them involved", while also acknowledging that it was a possibility. However, this significant rupture did not appear to get resolved, and there was tension and continuous ruptures throughout the session after the first mention of social services. Chantelle did not return to therapy after this session.

Other examples of this pattern were the therapist suggesting to the adolescent that they may need to speak with their parent about a risk issue that had come up in the therapy, which was against the adolescents wishes. This category therefore demonstrates the therapist's focus on risk, which conflicted with the adolescent's wishes, seemed to put strain on the therapeutic relationship.

7.3.4 Resolution strategies

Resolution strategies refer to the attempts made by the therapist to repair a rupture. Figure 24 shows the proportion of sessions that each resolution

strategy was used in at least once, for each group, in early and late sessions. These figures refer to sessions whether or not a rupture occurred in the session, as it is possible for resolution strategies to be made in relation to a rupture from a previous session. Resolution strategies frequently used in sessions for all three groups were the therapist illustrating the tasks or providing the rationale for treatment and the therapist redirecting or refocusing the client. Illustrating the tasks or rationale was observed frequently in all groups, in 46% of early and 49% of late sessions. Redirecting the client was also observed frequently in all groups, in early (46%) and late sessions (63%). Inviting the adolescent to discuss their thoughts and feelings was used somewhat frequently in all groups, particularly in the late sessions. In late sessions, inviting thoughts or feelings was observed the most for 'dissatisfied' dropouts (71% of sessions), followed by 'got-what-they-needed' dropouts (57% of sessions) and the least for completers (50% of sessions).

Changing the tasks or goals was observed more in early sessions with 'got-what-they-needed' dropouts (43% of sessions) and completers (29% of sessions), compared with 'dissatisfied' dropouts (14% of sessions). By late sessions, this strategy was observed less for completers (21% of sessions) compared with 'dissatisfied' dropouts (50% of sessions) and 'got-what-they-needed' dropouts (43% of sessions). Clarifying misunderstandings was observed relatively frequently as a resolution strategy in early sessions with 'got-what-they-needed' dropouts (43% of sessions) and completers (29% of sessions), but infrequently with 'dissatisfied' dropouts (7% of sessions). Clarifying misunderstandings was used infrequently in late sessions in all groups. In early sessions, therapists were observed as acknowledging their contribution to ruptures more for 'dissatisfied' dropouts (29% of sessions) than completers (7% of sessions). This resolution strategy was rarely observed in the late sessions for both completers and 'dissatisfied' dropouts (14% of sessions), and was not observed in any of the early or late sessions for 'got-what-they-needed' dropouts.

The rest of the resolution strategies were observed relatively infrequently, in all groups.

Figure 24. Therapists strategies used at least once in attempt to repair ruptures, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
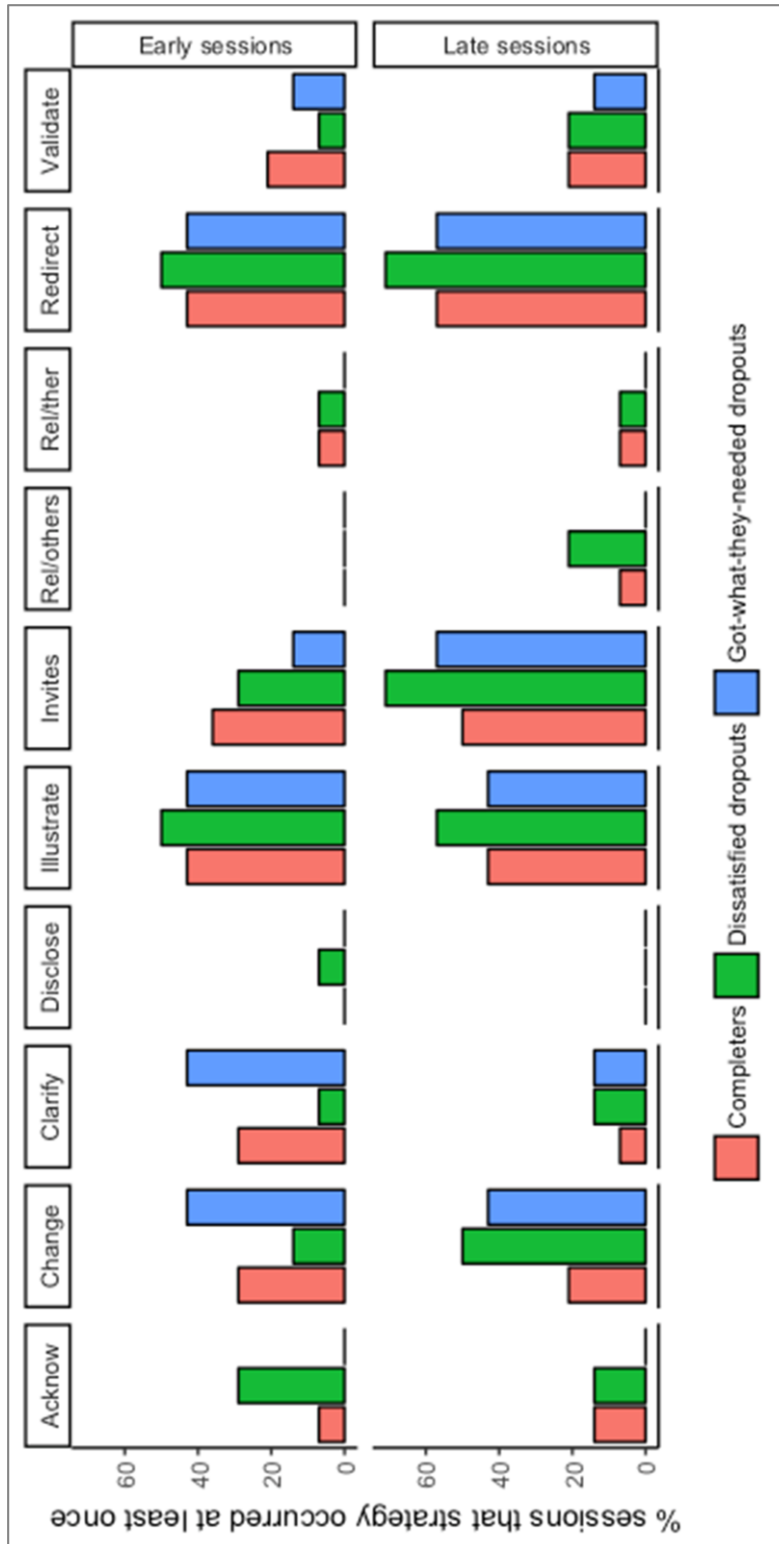
Scores derived from the Rupture Resolution Rating System. Acknow = therapist acknowledges their contribution to rupture; Change = therapist changes tasks or goals; Clarify = therapist clarifies a misunderstanding; Disclose = therapist discloses their own internal experience of the interaction; Illustrate = therapist illustrates tasks or provides rationale; Invites = therapist invites the client to discuss thoughts or feelings; Rel/others = therapist links rupture to clients interpersonal pattern; Rel/ther = therapist links rupture to relationship between client and therapist; Redirect = therapist redirects or refocuses client; Validate = therapist validates client's defensive posture.

7.3.5 Resolution of ruptures

Figure 25 shows the proportion of sessions that ruptures were rated as being resolved and unresolved, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions. Sessions without any ruptures were rated as resolved. Figure 25 shows that 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 'dissatisfied' dropouts, with only 21% of ruptures being rated as resolved in both early and late sessions. This was the largest observed difference between the groups in this study. This shows that there was a pattern of unresolved ruptures for 'dissatisfied' dropouts from early in treatment, while ruptures were usually resolved in sessions with completers and 'got-what-they-needed' dropouts.

Figure 25. Proportion of sessions where ruptures were rated as resolved, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions
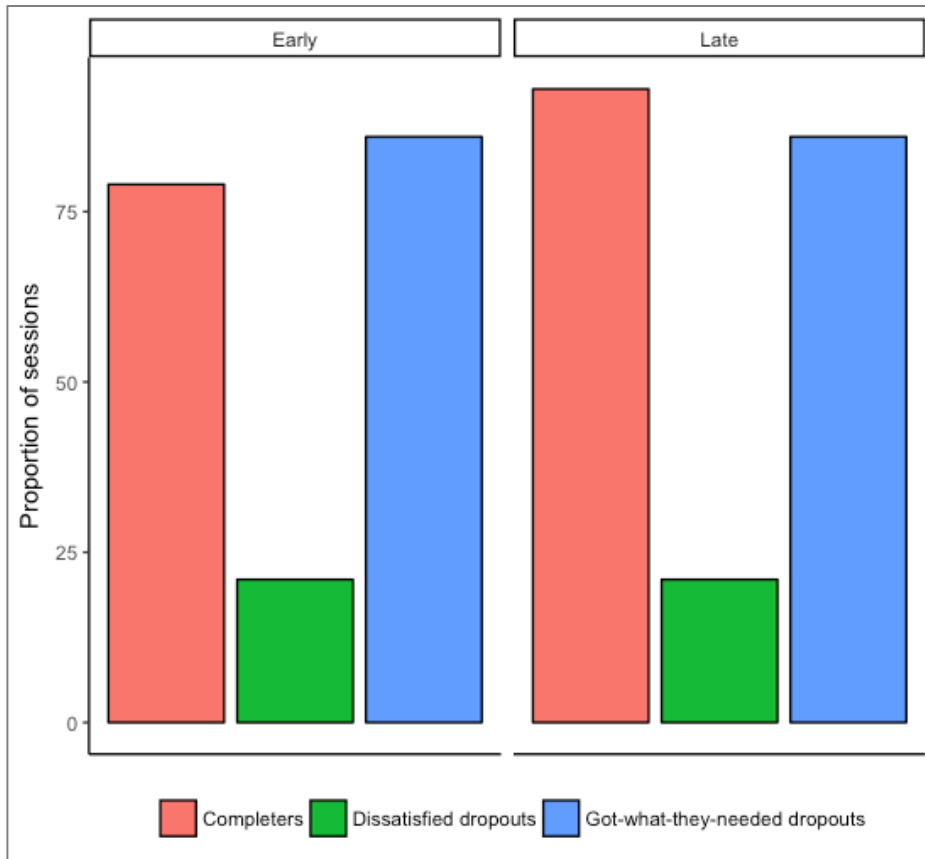
Scores derived from the Rupture Resolution Rating System (3RS). Scores with below average/poor resolution considered unresolved; scores of average resolution or above considered resolved.

7.4   Discussion

The aim of Study 4 was to investigate the role of the therapeutic alliance and rupture-repair processes in the lead up to the different types of treatment ending. 'Dissatisfied' dropouts were adolescents who were identified in the previous study as having reported stopping treatment due to not finding it helpful. 'Got-what-they-needed' dropouts were adolescents who were identified in the previous study as having dropped out due to reporting feeling sufficiently better and not in need of further treatment. A group of adolescents who completed treatment were included as a comparison group; these were adolescents reported by

their therapists as having ended treatment as planned. This discussion will situate the findings from Study 4 within the literature, followed by discussion of the strengths and limitations and conclusions that can be drawn from this study. Clinical implications and future directions for research will be discussed in the final chapter of this thesis.

It has been suggested that ruptures are particularly likely to occur with adolescents due to fluctuating mood and the need for autonomy (Chu, Suveg, Creed, & Kendall, 2010), supported by the current study as ruptures were observed in the vast majority of sessions for all groups, in line with findings from a previous study with adolescents (Gersh et al., 2017). Confrontation ruptures were found to be relatively uncommon, whereas withdrawal ruptures frequently occurred in all groups. The fewest confrontation and withdrawal ruptures were observed for 'got-what-they-needed' dropouts, followed by completers, with the greatest number of confrontation and withdrawal ruptures observed for 'dissatisfied' dropouts. Therapists were rated as having a greater role in causing or exacerbating ruptures in the sessions for 'dissatisfied' dropouts compared with completers and 'got-what-they-needed' dropouts. It was also found that for completers and 'got-what-they-needed' dropouts, the majority of sessions were rated as ruptures having been resolved, whereas the opposite was seen for 'dissatisfied' dropouts. It is important to acknowledge that these are exploratory findings, based on a small sample. These findings cannot be regarded as strong evidence, but are intended to inspire further research and illustrate the potential for rupture-repair as a useful line of enquiry for better understanding treatment dropout in adolescents.

Research has found dropout to be linked with poorer therapeutic alliance (Cordaro et al., 2012; de Haan et al., 2013; Robbins et al., 2006), a finding that was replicated in Study 1 of this thesis, where poorer therapeutic alliance, as reported by adolescents approximately six-weeks after starting treatment, was predictive of dropout. Study 4 extends these findings, by demonstrating a difference in patterns of therapeutic alliance between the types of dropout identified in Study 3. Therapeutic alliance scores were found to be similar for 'got-what-they-needed' dropouts and

completers, suggesting that adolescents who stop treatment without their therapist's agreement because they do not feel in need of further treatment do not appear to have poorer therapeutic alliance with their therapist than adolescents who go on to complete treatment. 'Dissatisfied' dropouts had poorer therapeutic alliance early in treatment, compared with completers and 'got-what-they-needed' dropouts, and their alliance scores were also lower in the final session they attended, compared to the equivalent sessions in the other groups. 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), which is supported by these findings as they suggest that failure to form a good therapeutic alliance early in treatment poses risk of 'dissatisfied' dropout. On the basis of empirical evidence indicating the relationship between the therapeutic alliance and treatment outcomes, scholars have proposed that clinicians should pay attention to issues in forming a good therapeutic alliance from the start of treatment (Swift & Greenberg, 2015).

These findings raise several questions. Why was the alliance poorer for 'dissatisfied' dropouts early in treatment compared with completers? It is possible this was due to a lack of fit between the adolescent and therapist, or the adolescent and treatment modality, an aspect of treatment that little attention has been paid to in the literature (Bleyen, Vertommen, & Audenhove, 1998). We don't know if these therapists could have done something different that could have fostered a better alliance from the start of treatment, or whether alliance would have been better had these adolescents had a different therapist and/or treatment. In Study 3, results showed that at baseline, 'dissatisfied' dropouts appeared similar to the completer and 'got-what-they-needed' dropouts in terms of their demographics and presenting symptoms, suggesting there was little that differentiated this group prior to starting treatment. Together, these findings suggest that future directions for research should focus on treatment factors to better understand disengagement.

In line with the existing literature in studies of psychotherapy with adult clients (Lingiardi & Colli, 2015), withdrawal ruptures were found to occur in most sessions, while confrontation ruptures occurred much less frequently, in all three groups. However, there were some differences in patterns of rupture-repair between the groups. On average, sessions with 'dissatisfied' dropouts were found to feature a larger number of confrontation and withdrawal ruptures, compared with those of completers and 'got-what-they-needed' dropouts. Also, the ruptures in sessions with 'dissatisfied' dropouts were rated as more significant, on average, than those in sessions with completers and 'got-what-they-needed' dropouts. While few confrontation rupture markers were observed in early sessions for 'dissatisfied' dropouts, a higher incidence of confrontation rupture markers was observed in the late sessions. Although 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; Hill et al., 1993; Kelly, 1998; Paulson et al., 2001; Regan & Hill, 1992; Rhodes et al., 1994; von Below & Werbart, 2012; Watson & Rennie, 1994), an increase in confrontation rupture markers may be indicative of dissatisfaction with treatment. Despite the confrontation ruptures having occurred in late sessions for most 'dissatisfied' dropouts, it is interesting that the therapists didn't appear to have been aware that the adolescents were dissatisfied with the therapy. This is an important finding as confrontation ruptures are easier for therapists to detect than withdrawal ruptures (Swank & Wittenborn, 2013), providing overt behaviours that therapists should pay attention to when working clinically 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 express their dissatisfaction with treatment indirectly (Gersh et al., 2017), and this idea is supported by the current findings given the higher frequency of withdrawal ruptures for 'dissatisfied' dropouts. Thus, withdrawal ruptures may indeed provide warning signs for dissatisfaction with treatment. While withdrawal ruptures can be difficult for therapists to detect (Boritz et al., 2018),

clinical trainings may help therapists to identify different rupture markers more easily.

The types of rupture markers that occurred in sessions were similar between groups, with the most frequently observed withdrawal rupture marker being minimal response and the most frequently observed confrontation rupture markers being reject intervention and complaints about the activities of therapy. Interestingly, in the last attended sessions of 'dissatisfied' dropouts, some specific rupture markers were observed more frequently than for the other groups. These include denial, defensiveness and rejecting the therapist's intervention. These rupture markers may tell us about typical interaction patterns prior to 'dissatisfied' dropout. However, these findings should be viewed as exploratory and further work is needed to investigate the specific in treatment processes that occur prior to 'dissatisfied' dropout. Overall, greater frequency and significance of confrontation and withdrawal ruptures characterised sessions of 'dissatisfied' dropouts. These findings suggest that therapists should be familiar with the range of rupture markers that may occur during treatment, particularly withdrawal markers which are more difficult to detect, which may help therapists to recognise potential dissatisfaction of their adolescent client's, which adolescents may struggle to express verbally to their therapist. Existing studies of ruptures have focused on the overall withdrawal and confrontation frequencies, and have not reported the specific rupture markers that occur. This means it is not possible to see how these findings may compare with other samples, and it cannot be said whether these findings, such as minimal response being the most common rupture marker in this sample, are typical across all therapies or are specific to the treatment of depression and/or adolescents, or of psychodynamic therapies, which the majority of 'dissatisfied' dropouts underwent.

Perhaps the most striking finding in this study was that ruptures were frequently rated as unresolved for 'dissatisfied' dropouts, in contrast to completers and 'got-what-they-needed' dropouts, whose ruptures in the sessions were mostly considered as having been resolved. These

findings are in line with previous research findings linking unresolved ruptures with dropout (Muran et al., 2009).

This is the first known study to investigate the relationship between unresolved ruptures and dropout in adolescents receiving treatment for depression. The findings from this study therefore illustrate notable differences in what occurs in the sessions for adolescents who go on to drop out and report dissatisfaction, compared with those who complete, as well as those who drop out despite reporting being generally satisfied with the treatment they received. The specific resolution strategies used by the therapists to attempt to resolve ruptures were similar between the groups, particularly in the late sessions. However, it was interesting to note that the resolution strategy 'changing the tasks or goals' was observed more frequently in the early sessions with completers and 'got-what-they-needed' dropouts compared with 'dissatisfied' dropouts, potentially reflecting therapists adopting a less flexible approach with 'dissatisfied' dropouts. It cannot be said from these data whether this strategy led to greater resolution of ruptures, but would be an interesting line of enquiry in future studies. Overall, the strategies adopted by therapists for completers, 'dissatisfied' and 'got-what-they-needed' dropouts were similar, and it seems the extent to which therapists were successful in resolving ruptures is what differentiated 'dissatisfied' dropouts from the other two groups. Although no specific differences were found in relation to the three treatment arms, as the sample primarily consisted of STPP cases, it is not possible to draw any reliable conclusions about treatment arm differences.

Therapists were rated as having a greater contribution to ruptures for the sessions of 'dissatisfied' dropouts compared with completers and 'got-what-they-needed' dropouts. While it is generally accepted by researchers that both a client and therapist contribute to ruptures (Samstag, Muran, & Safran, 2004), the 3RS does not capture specific therapist contributions to ruptures (Eubanks et al., 2015). This study therefore sought to develop an observational coding system of therapist contributions to ruptures (i.e. the ways in which therapists seemed to cause or exacerbate ruptures). Three categories of therapist contribution

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to ruptures were constructed: therapist minimal response, persisting with a therapeutic activity and focus on risk. These categories will be reflected on in relation to the existing literature.

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 formed part of their theoretical orientation, such as goal setting in BPI, or in STPP making interpretations. While these approaches would be viewed appropriate in the context of their modalities, when these approaches led to the adolescent withdrawing or rejecting the intervention, the therapist persisted with these techniques. Previous research on the process of resolving ruptures indicated that persisting with a specific intervention or technique can perpetuate ruptures, and therefore therapists should focus on being responsive to the client, rather than rigidly adhering to any given treatment approach or technique (Aspland et al., 2008; Cash, Hardy, Kellett, & Parry, 2014; Newman, 1998; Rhodes et al., 1994; Sarracino, Garavaglia, Gritti, Parolin, & Innamorati, 2013; Watson & Greenberg, 2000).

In these cases, we might speculate that the therapists techniques were potentially damaging to the alliance, as they did not appear to stay with the emotional core of the adolescent's experience at that moment. These findings are similar to those of a case study with an adult who received CBT for bulimia nervosa and dropped out of treatment (Sarracino et al., 2013). From session-by-session ratings of rupture-repair, the authors reported that every time the client introduced highly emotive topics to her therapist, the therapist would shift to more concrete matters, thus failing to explore the client's feelings on a deep, emotional level. The authors argued that this did not allow the client to explore and value her own emotional experience, and this was seen to perpetuate ruptures between the client and therapist (Sarracino et al., 2013). This is similar to what was observed in some of the sessions in this study, and potentially reflects the therapist's approach failing to address the issues

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that were most pertinent to the client. Thus, it is important for therapists to pay attention to and be responsive to the needs and wishes of their clients (Bleyen et al., 1998).

The final way in which therapists were viewed as contributing to ruptures was when their focus on risk issues conflicted with the wishes of the adolescent. This fits with findings from previous studies in which adolescents have reported concerns about confidentiality when receiving mental health treatment (Gibson et al., 2016; Gulliver, Griffiths, & Christensen, 2010). The possible breaking of confidentiality by needing to involve parents and/or other agencies appeared to lead to ruptures.

In Study 3, adolescents were classified as 'got-what-they-needed' dropouts having reported stopping therapy because they had got what they needed and did not feel a need to continue in therapy. Based on interviews with the therapists of 'got-what-they-needed' dropouts, they did not appear to be left concerned about these adolescents, despite having considered them to have ended treatment prematurely. This raised the question of whether a definition of dropout based purely on lack of agreement with the therapist about stopping treatment is clinically meaningful, especially given that they had the best observed clinical outcomes when compared with both completers and 'dissatisfied' dropouts at each time point. The findings of Study 4 showed that patterns of therapeutic alliance and rupture-repair were similar for 'got-what-they-needed' dropouts and completers, providing further support for the idea that this type of dropout is not a negative ending to treatment. 'Got-what-they-needed' dropouts tended to have better therapeutic alliance with their therapists and did not appear to end treatment following unresolved ruptures, in contrast to 'dissatisfied' dropouts. The patterns of alliance and rupture-repair were therefore markedly different for 'got-what-they-needed' dropouts and 'dissatisfied' dropouts, providing further support that these types of dropout should be regarded as distinct phenomena. Taken together, the findings from Study 3 and Study 4 provide little indication that 'got-what-they-needed' dropout was a negative conclusion to treatment.

Overall, there were stark differences found between the therapy sessions for 'dissatisfied' dropouts compared with completers and 'got-what-they-needed' dropouts. This is an important finding, as it 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 therapeutic alliance. The implications for research and clinical practice will be discussed fully in the final chapter of this thesis.

7.4.1 Strengths and limitations

The strengths of this study are that having constructed types of dropout in Study 3, Study 4 looked at dropout from a different perspective, using observational measures of what happened in the therapy sessions. This addressed a much-neglected area of research, being the first known study to investigate patterns of rupture-repair in the therapeutic alliance in adolescents receiving therapy for depression. The findings were largely as predicted and illustrated differences in patterns of alliance and rupture-repair for 'dissatisfied' dropouts compared with completers and 'got-what-they-needed' dropouts, strengthening the typology developed in Study 3. However, these findings must be viewed as exploratory, and the small sample size meant it was not possibly to draw any conclusions about potential differences between treatment arms. Furthermore, it is not possible to conclude from these data what may have contributed to the rupture and resolution process.

It is important to note that I was not blind to the group of the adolescents. This posed the risk of biasing my ratings, although a sub-sample of sessions were double rated by a postgraduate researcher who was blind to the groupings, and good inter rater reliability was established. This study also had a small sample size, so multivariate analyses could not be conducted. This meant it was not possible to assess the unique contribution of therapeutic alliance, rupture and resolution on the different types of treatment ending. With these limitations in mind, it is important to consider the findings exploratory and a starting point for understanding the role of rupture-repair in treatment dropout, in the context of adolescent depression.

Another limitation of this study was that while the two dropout groups ('dissatisfied' and 'got-what-they-needed') in this study were classified based on qualitative analysis of in-depth interviews with the adolescents and their therapists, the completers were grouped having been classified as completing therapy by their therapists. 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 be satisfied and dissatisfied completers. Thus, while completers were treated as a homogenous group, this is unlikely to be the case and the completers must be viewed cautiously as a comparison group. Nevertheless, some seemingly important differences were observed in patterns of rupture-repair between completers and 'dissatisfied' dropouts.

Finally, it is important to acknowledge the limitations of the measure used in this study, the 3RS. Firstly, the ratings of sessions were conducted solely on the session audio recordings. The 3RS was developed for use on video recordings (Eubanks et al., 2015), although recently has been applied to audio recordings (Gersh et al., 2017). It is possible that some ruptures may not have been detected due to the use of audio as opposed to video recordings. It would be useful in future studies to test the reliability of the 3RS when using audio compared with video recordings. This is one of the first studies to use the 3RS in the study of treatment with adolescents and no adaption was made to the 3RS for the purpose of this study. However, some potential adaptations could be useful for future studies to allow more rigorous testing of rupture-repair patterns in relation to outcome. For instance, the measure captures various therapist strategies for attempting to repair ruptures, but it does not capture how well these strategies were adopted or how successful specific strategies were in resolving ruptures. Furthermore, the measure provides little information about how therapist's contribute to ruptures. In response to this, descriptions of therapist contributions were noted and analysed qualitatively to develop an observational coding system of therapist contributions to ruptures. However, the observational coding system was not subjected to inter-rater reliability checks and is in

need of further testing. Future researchers are encouraged to include qualitative data about therapist contributions to ruptures, which can contribute to future adaptation of the measure. Adaptations to the measure are recommended that would be useful for future studies to rigorously investigate how patterns of rupture-repair are negotiated during treatment and how such patterns are associated with different outcomes, including dropout.

7.4.2 Conclusion

In Study 3, three types of dropout were constructed: 'dissatisfied', 'got-what-they-needed' and 'troubled' dropout. Study 4 sought to build on the findings from Study 3, by exploring what happened in the therapy sessions prior to dropout, from an observer perspective. 'Troubled' dropouts were excluded from this study due to a small sample size. The aim of Study 4 was to investigate the role of the therapeutic alliance and rupture-repair processes in the lead up to 'dissatisfied' dropout, compared with treatment completion and 'got-what-they-needed' dropout. Findings of this exploratory study indicated that patterns of therapeutic alliance and rupture-repair were broadly similar for 'got-what-they-needed' dropouts and completers, suggesting that there were not issues in the alliance that led to 'got-what-they-needed' dropout, strengthening the argument in Study 3 that 'got-what-they-needed' dropout may not be a negative way for treatment to end. This study found some distinct differences in the therapeutic alliance and patterns of rupture-repair for 'dissatisfied' dropouts compared with completers and 'got-what-they-needed' dropouts. 'Dissatisfied' dropouts tended to have poorer therapeutic alliance, more ruptures, and ruptures were less frequently resolved, compared with completers and 'got-what-they-needed' dropouts. This is the first known study to investigate patterns of rupture-repair in the lead up to dropout in the context of adolescent depression, and suggests that rupture-repair may be a productive line of enquiry for understanding the process of disengagement in adolescents receiving treatment for depression.

8 General discussion

8.1 Introduction

The overall aim of this thesis was to seek to better understand therapy dropout in the context of treatment for adolescent depression. It presented secondary analysis of quantitative and qualitative data from the IMPACT RCT, investigating psychological treatment for adolescent depression, using a mixed methods approach. This final chapter will provide an overview of the main findings and conclusions from each of the four studies that comprise this thesis. Research and clinical implications, limitations and methodological reflections will be discussed.

8.2 Situating the findings within the literature

For decades, researchers have debated how dropout should be conceptualised and operationally defined (Pekarik, 1985; Warnick et al., 2012; Wierzbicki & Pekarik, 1993). There have often been conflicting findings from studies of dropout when measured as a unitary concept. For instance, greater symptom severity has been found to predict dropout in some studies (Baruch et al., 2009; Gonzalez et al., 2011), yet there are contradictory findings from other studies which did not find symptom severity to be predictive of dropout (Wergeland et al., 2015), including Study 1 in this thesis. Similarly, poorer therapeutic alliance has been found to be predictive of dropout in numerous studies (de Haan et al., 2013), as was found in this thesis, yet two studies failed to replicate this finding (Hawley & Weisz, 2005; Ormhaug & Jensen, 2016). It has previously been considered that these contradictory findings may be the result of heterogeneous populations included in such studies, as well as the possibility that risk factors for dropout may differ among different client groups and settings (de Haan et al., 2015). The research in this thesis suggests that such contradictory findings may also be explained by the fact that studies have used generic definitions of dropout that fail to account for the reasons for dropout. This results in heterogeneity of cases classified as dropouts, which pose the risk of researchers coming to misleading conclusions.

Kazdin and colleagues proposed two influential theoretical models of dropout: the risk factor model and the barriers to treatment model (Kazdin, 1996; Kazdin, Holland, & Crowley, 1997). While Kazdin's models have sought to identify correlates of dropout, the research in this thesis suggests that these two models may in fact be explaining two distinct types of dropout. The barriers to treatment model may help to explain one type of dropout ('dissatisfied'); the risk factor model may help to explain another ('troubled' dropout); while the third type was not explained by existing theoretical models of dropout, which reflects positive reasons for stopping treatment ('got-what-they-needed' dropout). Each of these dropout types will be situated within the existing theoretical and empirical literature.

8.2.1 'Dissatisfied' dropouts

'Dissatisfied' dropouts reported stopping therapy because they did not find it helpful and it failed to meet their needs. This type fits with Kazdin's barriers to treatment model, which outlines the within-treatment barriers young people will experience when attending treatment that may contribute to dropout. Such barriers include not perceiving the treatment as relevant to their problems, finding treatment too demanding or having a poor relationship with their therapist (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, et al., 1997; Nock & Ferriter, 2005), all of which were frequently referred to in interviews with the 'dissatisfied' dropouts in Study 3.

Notably, much of the dissatisfaction reported by these adolescents centred around the relationship with their therapist. The dissatisfaction with treatment described by these adolescents fitted within Bordin's (1979) components of the therapeutic alliance, including issues with the tasks and goals for treatment (for instance, not finding the approach helpful and not understanding the rationale for certain tasks, such as homework), as well as issues in the therapeutic relationship (such as feeling pressured into talking and not feeling cared about by their therapist). Previous qualitative research found that adolescents reported how getting on with their therapist made them willing to attend and

participate in sessions, while negative interactions with staff made them less willing to participate in treatment and led them to lose confidence that treatment could help (Oruche et al., 2014). These findings fit with the 'dissatisfied' dropouts, who often reported negative interactions with their therapists. Researchers have argued that adolescents' experiences of their therapists as reliable, dependable and responsive provide the foundation for collaboration in treatment (Shirk et al., 2008; Shirk & Russell, 1996), in contrast to what was reported by the 'dissatisfied' dropouts, which may have contributed to their decisions to stop treatment.

‘Dissatisfied’ dropouts were found to have poorer scores of therapeutic alliance, more withdrawal and confrontation ruptures, and ruptures were rated as higher in significance, compared with completers and 'got-what-they-needed' dropouts. Moreover, for 'dissatisfied' dropouts, ruptures were mostly rated as unresolved, in contrast to completers and 'got-what-they-needed' dropouts, which was the largest observed difference between 'dissatisfied' dropouts and the other groups. This is in line with the limited existing evidence finding a relationship between unresolved ruptures and dropout, in adult clients receiving time-limited psychotherapy for personality disorders (Muran et al., 2009). The findings from this research support the relevance of unresolved ruptures to 'dissatisfied' dropout in the treatment of adolescent depression. Overall, these findings indicated a more difficult interaction between adolescents and therapists in sessions with 'dissatisfied' dropouts, compared with completers and 'got-what-they-needed' dropouts, and this was the case in both early sessions (i.e. the second session) and late sessions (i.e. the last session prior to them stopping treatment).

It has been proposed by researchers that the successful resolution of withdrawal ruptures leads to the client being able to express their wants and needs to the therapist, so that the client is more able to tell the therapist what they need from them and help the therapist to notice when their needs are being missed (Eubanks-Carter, Muran, & Safran, 2010; Safran & Muran, 2000). The successful resolution of confrontation ruptures is regarded as enabling the client to gain access to vulnerable

feelings, through the therapist maintaining an open, non-defensive stance, as well as showing willingness to explore how they have contributed to ruptures in the alliance (Eubanks-Carter et al., 2010; Safran & Muran, 2000). It seems that ruptures were seldom resolved in these ways for 'dissatisfied' dropouts.

Overall, in-treatment factors appear to offer an explanatory model for why 'dissatisfied' dropout occurs, in line with findings that barriers in treatment (Kazdin, Holland, & Crowley, 1997; Kazdin & Wassell, 1998; Prinz & Miller, 1994), poorer therapeutic alliance (Cordaro et al., 2012; de Haan et al., 2013) and unresolved ruptures (Muran et al., 2009) all predict dropout. However, the findings in this thesis suggest that in the context of treatment for adolescent depression, these in-treatment factors may be specifically relevant to 'dissatisfied' dropout, rather than overall dropout, as has been assumed in the existing literature.

8.2.2 'Troubled' dropouts

'Troubled' dropouts were those adolescents who reported stopping therapy because they lacked the stability in their lives to engage in the therapy. Indeed, at baseline, they appeared to have greater symptom severity, including having the highest mean scores for antisocial behaviour, risk taking and self-harm, compared with the other dropout types, and presented with at least one comorbid disorder. This type fits with Kazdin's (1996) risk factor model, which proposes that there are numerous conditions that influence a child's engagement with treatment, and studies supporting this model have generally indicated that it is the most disadvantaged youth who are most likely to drop out of treatment (de Haan et al., 2013).

These findings are in line with previous research that found dropout to be associated with greater symptom severity (de Haan et al., 2013), mental health comorbidity (Lock et al., 2006) and unstable living arrangements (Baruch et al., 2009). The findings from this research also indicate additional risk factors for dropout that have been neglected from the literature to date, including adolescents with financial or caring responsibilities in the home. For adolescents with such roles in their

family, seeking treatment for themselves may be less of a priority. A recent systematic review revealed that intercurrent life events and contextual factors that may interfere with treatment have been largely overlooked in the child psychotherapy literature (Blackshaw, Evans, & Cooper, 2018). 'Troubled' dropouts represent a group of young people for whom there were contextual factors that impeded their ability to engage in treatment, supporting Blackshaw et al.'s (2018) conclusion that greater attention needs to be paid to such contextual complexity for delivering effective mental health care. Broadly the 'troubled' dropout fits with the pattern described in the literature of it being the most disadvantaged young people at greatest risk of dropping out of treatment (Kazdin, 1996), yet suggests that the risk factor model is in fact relevant to this one type of dropout, rather than dropout when viewed as a unitary concept.

Overall, these findings suggest that Kazdin's (1996) risk factor model is relevant to 'troubled' dropout in the context of treatment for adolescent depression. This finding may extend to young people with other presenting problems, which could help to explain in the existing literature why effect sizes for risk factors as predictors of dropout are generally small, as well as the contradictory findings that have previously been reported (de Haan et al., 2013, 2015). It is possible that such risk factors may in fact be stronger predictors than has often been assumed, but specifically in relation to 'troubled' dropout, rather than dropout as a unitary concept. Several authors in recent years have advised the need to move away from the study of pre-treatment risk factors of dropout, as they have been insufficient in reliably predicting dropout (Ormhaug & Jensen, 2016). However, this research suggests that the study of risk factors for dropout remains important specifically for 'troubled' dropout, as it points to the possibility that there may be different influences on dropout, depending on the reasons as to why the adolescent drops out of treatment.

8.2.3 'Got-what-they-needed' dropouts

'Got-what-they-needed' dropouts reported stopping therapy because they felt they had got something out of the therapy and did not feel a need to

continue with it. Their reported perception that they were ready to stop therapy was supported by their outcome scores, as they had the best observed outcomes compared with completers and 'dissatisfied' dropouts at each time point, and their therapists did not report clinical concern about the treatment ending in this way. The 'got-what-they-needed' dropout type challenges the common assumption that dropout is a negative way for treatment to conclude (Cooper et al., 2018), as at least with adolescents receiving treatment for depression, this is not necessarily always the case.

'Got-what-they-needed' dropouts fit with findings from a small number of studies that have investigated clients' reasons for stopping treatment. Pekarik (1992) conducted a study, in which adult clients and parents of children who had received mental health treatment, were asked about their reasons for stopping treatment. Pekarik (1992) reported that feeling sufficiently improved was a common reason they gave for stopping treatment. Similarly, one study investigated the reasons for ending treatment from the perspective of parents of 7-18 year olds receiving outpatient treatment (Garcia & Weisz, 2002). The authors conducted a factor analysis of the reasons 344 parents gave for their child stopping treatment, using the 'Reasons for Ending Treatment Questionnaire', in both completer and dropout cases. One of the factors for stopping treatment was not perceiving the need for further treatment. This factor did not differentiate dropouts from completers, but did indicate that some children appeared to have stopped therapy for positive reasons (Garcia & Weisz, 2002). Additionally, a study with 84 adult clients found that sufficient progress with the problems that led them to seek treatment was one of the reasons they gave for stopping treatment (Roe et al., 2006).

This small body of literature suggests that clients who drop out of treatment are not a homogenous group of unimproved clients (Block & Greeno, 2011; Garcia & Weisz, 2002; Pekarik, 1992; Roe et al., 2006), in line with what was found in the research in this thesis. 'Got-what-they-needed' dropout is not explained by existing theories of dropout, which have focused on negative influences on dropout, such as risk factors

(Kazdin, 1996), barriers associated with attending treatment (Kazdin, Holland, & Crowley, 1997) or issues in the therapeutic alliance (Swift & Greenberg, 2015). This type points to a very different kind of dropout, which is the result of positive reasons: that is, some adolescents had made sufficient gains to feel ready to stop therapy. This indicates the need for theories of dropout to consider readiness to end treatment as an explanatory factor for why some young people decide to end treatment.

8.3   Implications of findings

This section will discuss the implications of the findings of the research in this thesis for research and clinical practice.

8.3.1   Research implications

The research in this thesis has provided an in-depth exploration of dropout in adolescents receiving therapy for depression. One of the major research implications stemming from this thesis pertains to on-going debates about how dropout should be defined (Hatchett & Park, 2003; Swift et al., 2009; Warnick et al., 2012). The results lead to the conclusion that dropout as a unitary concept may not be the most useful construct around which to organise the empirical study of dropout. The reasons adolescents give for stopping therapy have been neglected from dropout definitions, but were important in the refined categorisation of dropout constructed in Study 3. This presented a more clinically meaningful categorisation of dropout, which considered the reason for the adolescents' decision to end treatment. There are strong advantages for framing the study of dropout around the different types of dropout and reasons for dropout, which is likely to improve our understanding of dropout. There are several potential avenues for future directions in the study of dropout.

The typology of dropout constructed in this thesis was based on in-depth interviews with adolescents and therapists. Clients have rarely been asked about their reasons for stopping therapy, possibly due to the difficulty and discomfort of asking clients such questions when they have rejected services (Pekarik, 1992). This research shows that it is indeed

possible to interview clients about their reasons for stopping therapy. Future research that seeks to incorporate the perspectives of adolescents and therapists on reasons for dropout can be a productive line of enquiry, to test how the experiences reported by adolescents in this research generalise to other samples, such as adolescents with other presenting problems. Such studies could do so using in-depth interviews, as was done in this research. However, it is important to acknowledge the challenges of this, including both the potential difficulty in following up 'dropout' cases, as well as this approach being labour intensive. Other possibilities for collecting data on reasons for dropout may include questionnaires completed by post, phone or online. Having developed the dropout types in this research, it would be useful to know whether these can be feasibly measured in a shorter instrument of dropout type. If these types can be measured in routine clinical practice, this would provide scope for the advancement of the study of dropout. For instance, future research could further test risk factors and in-treatment factors in their ability to differentiate between 'troubled' and 'dissatisfied' dropouts. With the use of sufficiently powered studies, it would be possible to more rigorously test how clinical outcomes differ between the dropout types.

It is important to acknowledge that it may not always be possible to collect feedback on reasons for dropout from the perspective of young people. One of the issues with definitions of dropout based on therapist judgement is the lack of explicit criteria to support therapists in making their dropout judgements (Wierzbicki & Pekarik, 1993). The necessary conditions outlined in Study 3 could provide criteria to support therapists in making dropout judgements. It may be possible, having developed these dropout types, for therapists to classify adolescents as a dropout type without the direct report of the adolescent on their reasons for stopping therapy.

Similarly, the types of dropout could potentially be identified using routinely collected data. When a client ends treatment without the agreement of their therapist, measures of outcome, therapeutic alliance, and possibly even session recordings, can all indicate dropout type. For instance, when an adolescent stops therapy without the agreement of

their therapist, with poor outcomes and deterioration in scores of therapeutic alliance during treatment, this may well point to a 'dissatisfied' dropout. Similarly, when an adolescent stops therapy but shows clinical gains and relatively good therapeutic alliance, this may be indicative of 'got-what-they-needed' dropout. Overall, the incorporation of the multiple data sources in the development of the dropout types provides potential for future researchers to test the relevance of these types in other settings, even when direct access to adolescents' reasons for stopping therapy are not available.

In this research, the study of the therapeutic process was found to be a productive line of enquiry for understanding what happens in treatment prior to dropout. Namely, there was a group of adolescents who demonstrated some capacity to engage but were found to have a difficult pattern of interaction with their therapist, prior to stopping treatment due to dissatisfaction. Study 4 demonstrated the potential of the Rupture Resolution Rating System (3RS; Eubanks et al., 2015) as a measure to help identify when therapy might be 'going wrong'. While the 3RS is a relatively newly developed measure, Study 4 illustrated its value for investigating the therapeutic process. Development of the 3RS would be useful to further our understanding of the therapeutic process, and how it links with different types of dropout and outcomes. Future research should seek to better understand what leads to ruptures, the most common types of ruptures, how to avoid them, and how to recognise them when they do occur. These are important steps towards improving understanding of how ruptures can be resolved, which is called for given the striking pattern of unresolved ruptures prior to 'dissatisfied' dropout. To date, no known study has investigated the most effective strategies for repairing ruptures with adolescents. Future research should seek to understand the process by which ruptures can be successfully resolved with adolescents.

Another potential avenue for future research is to establish the evidence base for therapist trainings in resolving ruptures. Alliance-focused training has been developed in the United States as a supervision approach to improve therapists' ability to work constructively

with negative therapeutic process, and there is preliminary evidence that it is associated with better client outcomes (Safran et al., 2014). Alliance-focused training is yet to be piloted in an adolescent sample yet would be a useful line for future enquiry to explore whether it can improve the ability of therapists to resolve ruptures and whether this links with better retention in treatment.

Questions remain about what it was that led adolescents to be 'dissatisfied' dropouts, given that of the measured variables, they appeared similar to completers and 'got-what-they-needed' dropouts at baseline, such that there did not appear to be indicators prior to the start of treatment that they would end up being 'dissatisfied' dropouts. However, there are other client factors that may influence the resolution of ruptures, such as their personality or attachment pattern. For instance, Miller-Bottome and colleagues proposed that clients with a secure attachment pattern, who are open in expressing their internal experiences, may be more able to work through the tasks of resolving a rupture. In contrast, the way in which clients with an insecure attachment pattern communicate may pose challenges to the process of resolving ruptures, as they may be less open and collaborative in sharing their experiences (Miller-Bottome, Talia, Safran, & Muran, 2018). As the therapists in the sample for Study 4 were matched for completers and 'dissatisfied' dropouts, this controlled for therapist effects. This means we know that this same group of therapists also had cases for whom there were far fewer unresolved ruptures – so we may speculate that it was not the case that the 'dissatisfied' dropouts simply had less competent or novice therapists. Nevertheless, the influence of therapists must also be considered. In the context of the adolescents' dissatisfaction, it is possible that the therapists were not sufficiently attuned to the emotional experiences of the adolescents, thus hindering their ability to address the adolescents' dissatisfaction. Future research should therefore seek to further investigate relationships between therapy process variables and client and therapist characteristics.

It must also be acknowledged that it is unknown from this research how specific the experiences of therapy described by participants in

Study 3 are to dropout cases, as exploring the experiences of therapy for the 'completer' cases was beyond the scope of this research. Future research should test the extent to which the experiences of therapy described by 'dropouts' may or may not generalise to those adolescents who completed treatment. Completing treatment does not necessarily mean that young people had a positive experience of treatment, nor does it mean they will have good treatment outcomes. There may well be adolescents classified as completers, who had negative experiences of therapy that would fit with the experiences described by 'dissatisfied' dropouts, yet stuck with treatment. This could be for a multitude of reasons, such as pressure from parents, compliance, or "going through the motions" (Yatchmenoff, 2005, p.85). It is possible that the experiences reported by the adolescents included in this research are not unique to those adolescents who dropped out, and that the types of dropout constructed in this research could generalise to types of experiences of therapy. For instance, there may well be 'dissatisfied completers' and 'got-what-they-needed completers'. Research is therefore needed to explore how the experiences reported by these dropout cases are similar or different to the experiences reported by adolescents who completed treatment.

Reporting of dropout in psychotherapy outcome studies is often missing or inconsistently reported, likely in part due to lack of consensus over how dropout should be defined, as well as the lack of standard reporting requirements in relation to treatment dropout in clinical trials (Cooper et al., 2018). Cooper and colleagues argue that more detail on dropout is required across clinical trials and outcome studies, including the number of sessions attended, markers of dropout and efforts to retain clients in treatment (Cooper et al., 2018). The research in this thesis also indicates the need to include reasons for dropout in standardised dropout reporting guidelines. Standardising reporting of treatment dropout would be beneficial for advancing the study of dropout, over the inconsistent and ad-hoc way in which dropout reporting currently occurs in clinical outcome studies.

The research in this thesis also has broader research implications, showing the value of embedding qualitative methods in RCTs. The Medical Research Council's framework for the development and evaluation of complex interventions outlined that a variety of methods area required, including qualitative research (Moore et al., 2015). Researchers have come to increasingly appreciate what qualitative methods can offer RCTs (O'Cathain et al., 2014). For instance, qualitative research has been used within trials in a range of ways, including to explore the intervention being studied, the design and conduct of the trial, the outcomes and processes measured in the trial, the outcomes of the trial, and the health problems under study (O'Cathain et al., 2013). However, a particular challenge cited in the literature is around how qualitative and quantitative data can be integrated (Lewin, Glenton, & Oxman, 2009). O'Cathain and colleagues argued that researchers, funding bodies and journal editors need to place more value on mixed methods within RCTs. The research in this thesis provides an example of how qualitative data can be integrated with trial data, and how this can illuminate issues important to the application of real world interventions. In particular, this research shows how we may come to inaccurate conclusions when using pre-defined concepts or measures, such as the concept of dropout. In this research, the use of qualitative methods allowed the concept of dropout to be challenged and deconstructed, leading to the development of a stronger conceptual understanding of dropout. This ultimately led to a more clinically meaningful programme of research than would have been possible with the data from the RCT alone. Incorporating qualitative methods within trials therefore provides vast opportunities for addressing emergent issues that may occur during the conduct of a trial (O'Cathain et al., 2013), such as the high occurrence of treatment dropout in the IMPACT trial.

Finally, this thesis began from the assumption that psychological therapies are effective in the treatment of adolescent depression, and that ending treatment prematurely is therefore problematic. This assumption is grounded in findings from RCTs, including the IMPACT trial (Goodyer et al., 2017a). However, it must be noted that for ethical reasons, RCTs

such as the IMPACT study can not include a no-treatment control group. Thus, while the young people in the IMPACT trial did show high recovery rates, the mechanisms through which the young people achieved recovery are unknown. Depression is episodic in nature, as the likelihood of recurrence and relapse within one year, even in successfully treated depression, is estimated between 50 and 75% (Goodyer & Wilkinson, 2018). Improvements observed in the RCT may in part reflect the natural course of the disorder, and it cannot be concluded that improvements were necessarily caused by the treatments. It is important to remain open to the possibility that psychological treatment may not be effective, especially in light of recent research findings showing poor recovery rates in routine clinical practice (Edbrooke-Childs et al., 2018). With this in mind, there is value in investigating when treatment leads to suboptimal outcomes, including 'dissatisfied' or 'troubled' dropout, as well as for those young people who did engage in and complete treatment but did not find it helpful. For decades, the psychotherapy literature has largely focused on RCTs, that seek to identify the evidence base for a range of different psychological treatments. Despite numerous RCTs covering a range of treatment modalities over recent years (Brent et al., 2008; Goodyer et al., 2008, 2017a; The TADS Team, 2007), there have not been breakthroughs in improving recovery rates for adolescents receiving treatment for depression. To find ways of meeting the needs of all young people, we need to face the harsh reality that many young people do not benefit from evidence based treatments (Edbrooke-Childs et al., 2018). Research that seeks to understand treatment failure and non-response may well help to uncover what is lacking from existing treatment and support systems – and this could potentially lead to improvements in the support on offer to young people with mental health problems. Continued work on the IMPACT and IMPACT-ME studies can go some way to addressing this, and should be a priority for future psychotherapy research.

8.3.2 Clinical implications

The research in this thesis has important clinical implications. There are potential indicators of overall dropout (i.e. when an adolescent stops therapy without the agreement of their therapist), as well as the specific types of dropout ('dissatisfied', 'troubled' and 'got-what-they-needed'). These indicators are outlined in Table 25. Therapists should be aware of the range of indicators of dropout, to improve their capacity to identify potential different types of disengagement and so that they can intervene, which may lead to a more satisfactory outcome or ending of treatment.

Table 25. Potential indicators of overall dropout, and specific indicators of each dropout type

	Overall dropout	'Dissatisfied' dropout	'Troubled' dropout	'Got-what-they needed' dropout
Pre-treatment	- Older adolescents - Anti-social behaviour - Lower intelligence		- Complex difficulties *(e.g. caring or financial responsibilities; unstable living arrangements)* - Greater symptom severity *(e.g. risk taking; self harm; comorbid mental health conditions)*	
In-treatment	- Missed sessions (≥2 within initial four sessions)	- Poor therapeutic alliance from start of treatment - Withdrawal ruptures - Increase in confrontation ruptures during treatment - Unresolved ruptures	- Issues attending sessions may be due to external issues	- Adolescent appears to be improving - No indication of issues in the therapeutic alliance

This research suggests there are potential indicators of risk of dropout that may be present from the start of treatment. Increased age and antisocial behaviour and lower scores of verbal intelligence are each factors that if present at the start of treatment, may indicate increased risk of dropout, even when dropout is defined as a unitary concept. When beginning treatment with an adolescent, therapists should be aware that these factors are indicators of risk of dropout. They should then be

mindful of potential other indicators of dropout that may occur during treatment.

When an adolescent begins treatment with a more complex presentation, this may indicate increased risk of the adolescent going on to be a 'troubled' dropout, despite these factors not being predictive of dropout overall. This presentation may include comorbid mental health disorders, self-harm and risk tasking, as well as unstable living arrangements and financial or caring responsibilities within the family. Kazdin's (1996) risk factor model can therefore be regarded as useful for identifying those adolescents with more complex presentations who are at greater risk of going on to become a 'troubled' dropout. If the adolescent's disengagement appears to be primarily due to external factors, the therapist may explore this and consider whether there are other agencies that may be able to better support the adolescent. These findings highlight the need for clinical services to offer support for those with complex needs, who are faced with such adversity that the structure of therapy is likely to be extremely difficult for them to engage with. In recent years, novel approaches have been developed for providing therapy to young people, particularly in New Zealand where telephone, text and internet counselling services have been implemented for young people, providing more options for treatment and flexible ways of engaging with services (Gibson & Cartwright, 2014; Gibson et al., 2016), while in the UK there is increasing emphasis on providing mental health support within schools (Department of Health and Department for Education, 2017). Such approaches may provide options for youth who are most burdened and struggle to engage with traditional face-to-face therapies. A range of treatment options are needed for providing the flexibility to work with adolescents, their preferences and to fit in with their lives, for those who may struggle with the structure that comes with more traditional approaches to psychotherapy. This is in line with UK policy that calls for mental health support for young people to be embedded within health, education and social care (Department of Health, 2015; Fonagy & Pugh, 2016). Moreover, it is important to improve coordination with social services (Fonagy & Pugh, 2016), to ensure that some of the practical

challenges associated with attending treatment can be addressed, alongside their mental health needs.

However, such factors only provide part of the picture, and the concept of dropout is much more complex than can be explained by risk factors alone. Therapists should therefore consider these as initial indicators of risk of dropout. Once treatment begins, there are then a range of other factors for therapists to consider that may indicate potential risk of dropout.

Non-attendance in the early sessions was found to predict dropout, again when defined as a unitary concept, indicating that disengagement can potentially be detected early in treatment. Each missed session up to the fourth session increased the risk of dropout threefold. This highlights the need for clinicians to take every missed session seriously, particularly if a client misses two sessions within the first four. If the adolescent begins to miss sessions, the therapist should then consider whether the adolescent shows indicators that they may go on to be a 'dissatisfied' or 'got-what-they-needed' dropout, which can inform the way in which the disengagement should be managed.

If the therapists own subjective reaction to the adolescent disengaging from treatment is that they do not have clinical concern about treatment ending, this may be a potential indicator of 'got-what-they-needed' dropout – even if they view that further work could still be done with the adolescent. A crucial aspect for the therapist to ask is whether the treatment can be regarded as 'enough for now', while acknowledging that further treatment at a later stage may be required. Additional signs of this dropout type are that there are no notable difficulties in the therapeutic alliance. Thus, therapists should recognise that young people will sometimes stop treatment without their agreement, but this is not necessarily a 'poor' outcome. In some cases, it may be appropriate for therapists to be prepared to negotiate an earlier ending. In such cases, the therapist should consider discussing the adolescent's preferences for treatment, including about the ending of treatment. This is linked with the literature on shared decision making, defined as the process of clinicians working collaboratively with their clients to involve

them in decisions about their care and treatment (Cheng et al., 2017). Shared decision making should not just be at the start or during treatment: it should also be considered in terms of whether to continue treatment or not. This may lead to more collaborative decisions about when to end treatment, so that adolescents may be able to reach an agreed ending due to feeling they got what they needed from treatment. Therapists should be aware that a significant minority of adolescents may benefit from a brief intervention and their decision to end treatment may be an appropriate one.

Evidence based treatments for mental health problems typically recommend a specific number of sessions (Silverman & Hinshaw, 2008; Warnick et al., 2012). However, 'got-what-they-needed' dropouts show that some adolescents, even with moderate to severe depression, may benefit from a small number of sessions, as the average number of sessions attended by 'got-what-they-needed' dropouts was five sessions. The length of treatment required may differ substantially between adolescents and it is possible that shorter treatments may be preferable and helpful for some young people. The idea of working towards a 'good enough' ending has been discussed in the child psychotherapy literature (Lanyado, 1999a, 1999b). However, it seemed that for some young people, a 'good enough' ending could be achieved after just a few sessions. Adolescents and therapists are likely to differ in what they consider to be 'enough', yet these findings suggest that greater attention should be paid to adolescents' reports on their readiness to end treatment. Therapists being prepared to engage in shared decision making (Cheng et al., 2017) around treatment durations and endings could potentially ease pressure on waiting lists for treatment and improve the cost-effectiveness of treatment, given that a substantial proportion of adolescents may have a preference for a treatment shorter in duration to that on offer.

In contrast to the 'got-what-they-needed' dropout type, if the therapist has clinical concerns about the adolescent's disengagement from treatment, they should consider whether the adolescent fits with the 'dissatisfied' dropout type. These adolescents were critical of the therapy

they received and described a range of things they didn't like about the therapy or find helpful, including issues they had with the therapist's approach and the relationship with their therapist. It is crucial for therapists to be aware of the difficulty many young people will have in expressing their dissatisfaction to their therapist. However, it is important to stress that adolescents who reported having dropped out due to dissatisfaction tended to have a notably more difficult interaction pattern, both early in treatment (i.e. the second session) and in the final session prior to them stopping treatment, compared with completers and 'got-what-they-needed' dropouts. Specifically, they had poorer scores of therapeutic alliance, supporting the emphasis in each of the IMPACT treatment manuals on the importance of the therapeutic alliance (Cregeen et al., 2016; IMPACT Study CBT Sub-Group, 2010; Kelvin et al., 2010). Furthermore, there were more confrontation and withdrawal ruptures, which were rated as higher in significance, and ruptures were less frequently resolved for 'dissatisfied' dropouts. These findings indicate a specific, targetable aspect of treatment that may help to improve adolescents' satisfaction with treatment and could potentially improve engagement. Thus, when working with adolescents, even minor tension should be recognised as a potential marker of their dissatisfaction that if not addressed, may lead to disengagement. This fits with approaches such as mentalization-based treatment for children, where it is explicitly acknowledged that misunderstandings will happen between the therapist and child, and consider that it is how you work through them that is most important (Midgley, Ensink, Lindqvist, Malberg, & Muller, 2017). This could be viewed as relevant in any treatment modality, given that ruptures occurred in almost all sessions, yet it was whether or not they were resolved that most strongly differentiated 'dissatisfied' dropouts from completers and 'got-what-they-needed' dropouts.

At baseline there did not appear to be any particular differences between the 'dissatisfied' dropouts and completers. However, there were notable differences very early in treatment in terms of the interaction between adolescents and their therapists. Poorer therapeutic alliance was observable as early as the second session for the 'dissatisfied'

dropouts. The importance of establishing a therapeutic alliance with clients is widely acknowledged (Swift & Greenberg, 2015). However, there are a lack of guidelines about how a therapist should intervene in the event of failure to form a strong therapeutic alliance. It is possible that issues in forming a strong therapeutic alliance at the start of treatment may indicate a lack of fit between the adolescent and therapist, or a lack of suitability for the type of treatment. This highlights not only the need to pay attention to the therapeutic alliance, but it may also be important for therapists to acknowledge when therapy is not working. Indeed, recent debates acknowledge the potential risks and harm that may result from continuing ineffective treatment (Dalzell, Garland, Bear, & Wolpert, 2018; Wolpert, 2016). Thus, when treatment is not working, it may well be appropriate to consider changing approach, treatment modality or even therapist. It is important to stress that we cannot know from these data whether there would have been a better outcome for these young people had they been offered another type of treatment or a different therapist. Nevertheless, what we do know is that these young people reported dissatisfaction and also had comparatively poorer outcomes than completers and 'got-what-they-needed' dropouts. It is therefore essential to consider how clinical practice can adapt to meet the needs of these young people, particularly when therapy does not appear to be working.

The most common type of dropout found in this study was 'dissatisfied' dropout, the majority of whom were in the STPP arm. This raises questions about the specific aspects of STPP that adolescents seemed particularly dissatisfied with and may indicate that the model needs to be adapted to make it more acceptable to some young people in this age group. In the IMPACT trial, STPP was found to be equally effective as the other treatments (Goodyer et al., 2017a), suggesting that overall it does work as a treatment for this age group, yet for some adolescents, they were highly dissatisfied with it. This raises questions about whether it was because of the way that STPP was delivered or whether it was because the fit was poorer between the young person and therapist in these cases, compared with those adolescents who received STPP and were satisfied. While there were some aspects of

dissatisfaction expressed by adolescents in each of the three treatment arms, such as feeling that therapy wasn't giving them solutions for their problems or feeling the therapist didn't care, there were also aspects of the adolescents' dissatisfaction that seemed specific to the STPP arm. These included the adolescents finding the lack of structure, not knowing what to talk about and silence difficult. This was similar to what was found in a previous study with young adults who completed but reported dissatisfaction with psychoanalytic psychotherapy. In this study, some young adults seemed to experience the therapists non-directive stance as passivity, indifference, lack of response or understanding (von Below & Werbart, 2012). The issues raised in their interviews suggest that there are aspects of these various models of treatment that were not acceptable to some young people and it is possible that treatments need to be adapted to meet the unique needs of working with this population.

By being aware of such warning signs of dropout, clinicians can intervene to minimise the risk of different types of dropout. However, there appear to be few clinical guidelines around how to manage the threat of dropout, which are greatly needed to ensure that clinicians are adequately supported in dealing with potential disengagement of their clients. A small body of literature has found strategies to be effective in improving the engagement and retention of families in mental health care. Ingoldsby (2011) reported in a literature review that interventions such as family systems approaches, enhancing family support and coping, and motivational interviewing were all found to improve retention in treatment. Ingoldsby (2011) noted that all of these methods involved the clinicians actively addressing engagement issues, such as practical issues the family had in attending treatment. This review does show promise for the use of strategies for improving retention in therapy, yet the literature is sparse, and future research should strive to develop evidence-based practice for managing and preventing disengagement from treatment.

This research has implications for clinical training. While theories of therapeutic alliance and ruptures have grown in significance in the academic literature (Miller-Bottome et al., 2018), these theories are often not included as part of core professional clinical trainings. Theories of

rupture-resolution should be regarded as a fundamental aspect of clinical training, to provide clinicians with a foundation in understanding the range of ways that young people may express dissatisfaction with treatment that may lead to disengagement. This is essential to improve the ability of clinicians in recognising and responding to ruptures in the therapeutic alliance. By up skilling therapists in rupture resolution strategies, this may improve the satisfaction and acceptability of psychological treatment for adolescents, which could potentially improve engagement.

These findings also have implications at a service-delivery level. Services are frequently under pressure to discharge cases to show throughput of cases (Owens & Charles, 2016). A 'drop in drop out' model has been described as characteristic of how some adolescents engage in treatment (Gibson et al., 2016), whereby adolescents use treatment in a flexible way, dropping in when they feel in need of support. However, from this research, we saw that for 'got-what-they-needed' dropouts, these adolescents did not perceive a need to keep going to therapy, yet their therapists often regarded that there was still more work to be done, or that these adolescents would need further treatment at a later date. In practice, this means that such cases would tend to be discharged from clinical services. For 'got-what-they-needed' dropouts, the therapists were resistant to what they regarded as these premature endings. Such resistance may in part be due to their concerns about discharging a case, knowing the potentially lengthy process that the adolescent may be subjected to, to re-access treatment. Likewise, for 'troubled' dropouts, it was not the right time for treatment for them, yet to re-access help, they would have to be re-referred for treatment. Gibson and colleagues proposed a need for more flexible routes back into treatment (Gibson et al., 2016). If adolescents could be offered a quicker route back into treatment, or for 'top up' sessions if needed, this could potentially improve support for some young people who were not able to engage if the treatment at that time. Furthermore, for 'got-what-they-needed' dropouts, quicker routes back in to treatment may alleviate therapists concerns or resistance about ending treatment if adolescents have an option to 'drop back in' to treatment, if needed.

8.4   The limitations of this thesis

It is important to acknowledge the limitations of the research in this thesis. Firstly, this research was conducted after data collection for the IMPACT and IMPACT-ME studies had been completed. This meant that the studies in this thesis had to be designed around pre-collected data, so it was not possible to include measures that could have further contributed to understanding dropout in this sample. In particular, the Barriers to Treatment Participation Scale (BTPS), completed by parents and therapists, has been found to be a promising predictor of dropout in samples of children with conduct disorder (Kazdin, Holland, Crowley, et al., 1997). It would have been an advantage to include this measure, particularly a version adapted for adolescents given that many of the participants in this study were at an age where they were able to seek treatment without parental consent. The existing literature has criticised the use of 'variables of convenience' (Deakin et al., 2012), such as demographic details that are typically on the intake forms in clinics, in the study of dropout, which to a certain extent this research was also restricted by. However, the available data from the IMPACT and IMPACT-ME studies provided a richer dataset than has been available in most previous studies, including both interview data and session recordings, which provided greater scope for exploring the phenomenon of dropout in this sample.

Another issue regarding the use of pre-existing data was that the study was not sufficiently powered for the secondary hypotheses tested in Studies 1 and 2 in this thesis. It is therefore important to acknowledge that the findings are exploratory. The subsequent studies in this thesis were exploratory and as such, no hypotheses were tested. Future research should seek to test the findings from the research in this thesis, in studies that are formally powered to test whether there are differences in baseline characteristics, process variables and outcomes for the dropout types constructed in this thesis.

Linked to this, it is important to recognise that the operational definition of dropout used was based on therapist report on an 'end of

treatment' form. Therapists were not given any specific training or guidance on how to complete this form, meaning it was down to their own conceptualisation as to how they completed the form. While this was a weakness in terms of how dropout was operationalised in Studies 1 and 2, this limitation was addressed in the subsequent study, where qualitative methods enabled the meaning of dropout to be unpacked from the perspectives of both adolescents and their therapists.

Another limitation of the research in this thesis was that it paid relatively little attention to the role of family support in engagement in treatment and dropout. In Study 1, an increase in age was found to be associated with increased risk of dropout. This may in part have reflected that older adolescents were likely to be more responsible for making and keeping appointments, which may have contributed in part to the increase in risk of dropout with age. The influence of family support on dropout was not the focus of this research, but will be an important area for future studies.

Additionally, issues regarding the generalisability of the findings must be acknowledged. The data were collected in the context of an RCT for adolescent depression, in CAMHS in the UK. It is unknown how transferable these findings will be to adolescents with depression who present in services more generally, or when treatment is delivered in routine practice, compared with the manualised treatments offered within the RCT. It is possible that these findings may not be representative of those who chose not to enter the trial. It is also important to note that many young people with depression do not present in services (Gulliver et al., 2010), and there remain significant challenges around how to get young people in to services in the first place, as well as how to keep them engaged once they present in services. A significant minority (10%) of young people in the IMPACT trial were classified as non-starters; that is, they presented in a CAMHS service with depression, were recruited and randomised in to the study, but did not take up the treatment on offer. It was beyond the scope of this research to investigate the reasons that these young people did not take up the treatment that they had sought and were offered, but will be an important direction for future research.

Finally, in Study 3, those participants who took part in interviews about their experience of therapy were included. It is unknown how representative these findings are of those adolescents who were lost to follow up or chose not to participate in the IMPACT-ME study.

8.5 Methodological reflections

Prior to starting this PhD, I had experience of conducting both quantitative and qualitative research, having worked as a researcher on both the IMPACT and IMPACT-ME studies. I began this work interested in how I could use a mixed methods approach, to integrate the rich IMPACT and IMPACT-ME datasets. However, I was also aware of the challenges of integrating quantitative and qualitative data, such as issues discussed in Chapter 3, where quantitative and qualitative methods have sometimes been regarded as incompatible (Teddlie & Tashakkori, 2003). Having undertaken this work, I dispute the view that quantitative and qualitative data are incompatible and argue that quantitative and qualitative research can complement, challenge, and extend our understanding of complex phenomena.

I began the empirical work in this thesis by operationalising the concept of dropout, and this was necessary to conduct the statistical analyses for Studies 1 and 2. These statistical analyses enabled me to investigate predictors of dropout and outcomes associated with dropout. There were several null findings, the most striking of which was the lack of support for the hypothesis that dropout would be associated with poorer clinical outcomes compared with treatment completion. This led me to question the way in which dropout had been operationalised. I therefore sought to de-construct and reconstruct the concept of dropout, necessitating a qualitative approach. Drawing on interviews with both adolescents and therapists for cases classified as having dropped out of treatment, I was able to explore the stories of therapy from both perspectives. While my early studies assumed conceptual certainty for the statistical analyses, Study 3 unpacked the meaning of dropout leading to one of the most important findings from this thesis. That is, contrary to common assumptions in the literature (Cooper et al., 2018), the term

dropout covers a range of phenomena, not all of which are necessarily associated with poor outcomes. This led to the construction of three types of dropout, based on in-depth qualitative methods.

Having developed these types of dropout, I was then able to re-analyse quantitative data from the earlier studies, to explore whether there were differences in the baseline characteristics and outcomes for cases in each of the dropout types. Subsequently, further quantitative and qualitative data were derived using observational methods on the therapy session audio recordings for the same sample. This meant that the dropout types, initially developed based on the experiences of therapy described by the adolescents and their therapists, were then integrated with outcome and psychotherapy process data. The integration of the multiple datasets led to a more complete understanding of the dropout types, and provided stronger evidence for the differentiation between the dropout types.

In this research, the methods of analysis were decided based on the research question and aims. This mixed methods approach allowed me to contextualise the findings from my earlier statistical models, as well as to extend my understanding of the different types of dropout, drawing on different data sources, including in-depth interviews, outcome measures and observational data. As argued by Target (2018), mixed methods research enables us to deepen our understanding of outcome data with clinical meaning, and I hope to have provided an example of how this can be done throughout this thesis, by using multiple data sources and methods to build a more complete understanding of the concept of dropout.

Having undertaken this research, I strongly advocate the use of mixed methods research, particularly in clinical research which involves the study of complex phenomena. Had I approached this research solely from a quantitative or qualitative approach, this would have limited what we could have learnt about dropout. For instance, had I used a solely quantitative approach, I would not have learnt about the nuances in the different reasons adolescents give for stopping therapy, that ultimately helped to contextualise the findings from the statistical analyses. On the

contrary, had I used only a qualitative approach, this would have allowed me to develop a rich understanding of the meaning of dropout from multiple perspectives. The in-depth interviews uncovered important aspects of adolescents' reasons for stopping treatment, such as the aspects of therapy that they were dissatisfied with. However, these qualitative findings were strengthened through integrating them with other data sources, for instance, by being able to show the trend of better outcomes for the 'got-what-they-needed' dropouts, while the process research showed a more difficult interaction pattern between adolescents and therapists for 'dissatisfied' dropouts. Individually, the IMPACT and IMPACT-ME datasets presented an important opportunity to explore the phenomenon of dropout in adolescent depression. Taken together, the integration of these datasets allowed the development of a holistic understanding of the concept of dropout that simply would not have been possible had a solely quantitative or qualitative research design been adopted.

8.6   Overall conclusions

Over 40 years ago Baekeland and Lundwall (1975) stated that "definitional inexplicitness is the hallmark of most studies of dropping out of treatment" (p.740). Debates regarding how dropout should be defined have continued since this time (Pekarik, 1985; Warnick et al., 2012; Wierzbicki & Pekarik, 1993). The concept of dropout comes from the observation from clinicians that many clients end treatment prematurely (Wierzbicki & Pekarik, 1993), yet the research in this thesis highlights problems in defining dropout as a unitary concept, due to the heterogeneity of cases that such definitions classify as dropouts, which pose the risk of researchers coming to misleading conclusions. Existing dropout definitions fail to capture or take into account the way in which adolescents experience therapy, and do not fit with the reasons they give for stopping therapy. In fact, the adolescents in this research rarely referred to having dropped out, but rather, that they 'stopped going'. Dropout has been regarded as a negative outcome and something to be avoided (Cooper et al., 2018), yet this research shows that some

adolescents stopped therapy but had a positive experience of therapy and good clinical outcomes. Kazdin's two influential theoretical models of dropout, the risk factor model and the barriers to treatment model, were found to be relevant to the context of treatment dropout in adolescents with depression (Kazdin, 1996; Kazdin, Holland, & Crowley, 1997). However, from this research it seems that these two models may in fact be explaining two distinct types of dropout. The barriers to treatment model may help to explain one type of dropout ('dissatisfied' dropout); the risk factor model may help to explain another ('troubled' dropout); while the third type was not explained by existing theoretical models of dropout, which reflects positive reasons for stopping treatment ('got-what-they-needed' dropout). For years, dropout has been studied as a unitary concept, yet has been limited in the extent to which is has advanced our understanding of dropout and how to manage or prevent it. It is time to move away from the study of dropout as a unitary concept. The types of dropout developed in this thesis offer a refined way of conceptualising and operationalising dropout, providing an explanatory model for the range of different reasons as to why young people drop out of treatment. Framing future research around these types of dropout, instead of generic dropout definitions, will advance of the study of dropout.

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Appendices

Appendix 1. Running order for measures in IMPACT assessments

Measure	Weeks					
	0	6	12	36	52	86
IMPACT-ME Time 1 interview	X					
YPQ	X	X	X	X	X	X
EQ-5D	X	X	X	X	X	X
K-SADS	X	X	X	X	X	X
C-SSRS	X	X	X	X	X	X
CGAS	X	X	X	X	X	X
HoNOSCA	X	X	X	X	X	X
Adverse events		X	X	X		
RTSHIA	X	X	X	X	X	X
RRS	X	X		X		
WASI					X	
APQ	X		X		X	X
WAI-S		X	X	X		
Demographics	X					

YPQ (Young Person's Questionnaire which comprises: Mood and Feelings Questionnaire; Revised Manifest Anxiety Scale; short form of the Leyton Obsessional Inventory; the Rosenberg self-esteem scale; Antisocial Behaviour Questionnaire); EQ-5D (EuroQol-5 Dimensions); K-SADS (Kiddie–Schedule for Affective Disorders and Schizophrenia); C-SSRS (Columbia Suicide Severity Rating Scale); CGAS (Children's Global Assessment Scale); HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); RTSHIA (Risk Taking and Self Harm Inventory for Adolescents); RRS (Ruminative Responses Scale); WASI (Wechsler Abbreviated Scale of Intelligence); APQ (Alabama Parenting Questionnaire); WAI-S (Working Alliance Inventory – Short form).

Appendix 2. Demographics questionnaire: Adolescent version

DATE: _____   IMPACT ID _____

YP Demographic Questionnaire

Note: Please do not complete an item if you are unsure about the information.

A) INFORMATION ABOUT IMPACT PARTICIPANT

1. Are you a twin?   (please circle)   Yes   No

2. Were you adopted or fostered?   (please circle)   Yes   No

   If yes, at what age? _____

3. How would you describe your ethic origin? (please circle)

White		**Black or Black British**	
A	British	M	Caribbean
B	Irish	N	African
C	Any other White background	P	Any other Black background
Mixed		**Other Ethnic Groups**	
D	White and Black Caribbean	R	Chinese
E	White and Black African	S	Any other ethnic group
F	White and Asian		
G	Any other mixed background	Z	Not stated
Asian or Asian British			
H	Indian		
J	Pakistani		
K	Bangladeshi		
L	Any other Asian background		

B) INFORMATION ABOUT THE FAMILY

Please list below members of your family, giving the relationship to you (e.g., father, step-mother, father's partner, half-sister, foster carer etc.) and whether they live with you or elsewhere – examples are provided on the first line.

Name	Age	Relationship	Whereabouts
Examples:			
Anna Smith	52	mother	with child
John Smith	53	father	Edinburgh
Joe Bloggs	9	step-brother	Edinburgh

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

C) EDUCATION

1. What age did your parents leave secondary school?

_____/ Don't Know

2. Have they completed any more years of full-time education?

Yes   No   Don't Know

If yes, how many years? _____

3. Please list any qualifications you know about (including vocational/professional/educational)

Mother_____

Father_____

Partner (if applicable)_____

D) FAMILY CURRENT EMPLOYMENT (please tick)

	Mother	Father	Partner (if applicable)
Full-time work			
Part-time work			
Full-time in the home			
Unemployed/looking for work			
Unemployed for medical reasons			
Other (please describe, e.g., student or retired)			

If your parents are in paid employment, please state their current occupation:

Mother _____

Father _____

Partner (if applicable) _____

If you know please circle your approximate family income (before taxes are taken out)?

1. Less than £10,000   2. £10,000-£20,000   3. £20,000-£30,000

4. £30,000-£50,000   5. £50,000-£75,000   6. £75,000-£100,000

7. Over £100,000   8. Don't Know

E) HEALTH OF IMPACT TEENAGER

1. Are you currently taking any medicines?   (please circle)   Yes   No

(If appropriate, please include use of oral contraceptives)

If yes, please name, state dose and duration:

_____

_____

4. Prior to your entry into IMPACT, had you ever been referred to a psychiatrist, psychologist or similar person before?

(please circle)   Yes   No

If yes, what professional was seen and why:

_____

_____

E) HEALTH OF FAMILY OF IMPACT TEENAGER

1. Does any other family member **currently** suffer any medical, emotional or behavioural problems which affect their daily life?

(please circle)   Yes   No

If yes, please give details (age, diagnosis and treatment):

_____

_____

2. Has any other family member suffered any medical, emotional or behavioural problems in the **past**?

(please circle)   Yes   No

If yes, please give details (age, diagnosis and treatment):

_____

_____

Thank you for completing this questionnaire

Appendix 3. Demographics questionnaire: Parent version

DATE: _____   IMPACT ID _____

Parent Questionnaire

To be completed by mothers if possible please and returned to us within the next 7 days using the freepost envelope provided. All information is confidential. Thank you.

Your name (person completing questionnaire) _____

Your relationship to the IMPACT teenager (e.g., mother, father, foster carer) _____

A) INFORMATION ABOUT IMPACT TEENAGER

1. Name of IMPACT teenager: _____

2. Date of birth of IMPACT teenager: _____

3. Sex: _____

4. Is s/he a twin?   (please circle)   Yes   No

5. Is this child adopted or fostered?   (please circle)   Yes   No

     If yes, at what age? _____

     If no, how many weeks was the pregnancy? _____

6. To your knowledge, were there any complications with the pregnancy, labour and/or delivery of this child?

                       (please circle)   Yes   No

     If yes, please describe. _____

7. How would you describe this child's ethnic origin? (please circle)

1. White   2. Mixed.   3. Asian/Asian British   4. Black/Black British   5. Other   6. Decline to state

B) INFORMATION ABOUT THE FAMILY

Please list below members of the IMPACT teenager's family, giving the relationship to this child (e.g., father, step-mother, father's partner, half-sister, foster carer etc.) and whether they live with this child or elsewhere – examples are provided on the first line.

Name	Age	Relationship	Whereabouts
Examples:			
Anna Smith	52	mother	with child
John Smith	53	father	Edinburgh
Joe Bloggs	9	step-brother	Edinburgh
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

C) EDUCATION

1. At what age did you leave secondary school?   _____

2. Have you completed any more years of full-time education?

(please circle)   Yes   No

If yes, how many years? _____

3. Please list any qualifications you have (including vocational/professional/educational)

Mother_____

Father_____

Partner (if applicable)_____

4. If you know, please give the IMPACT teenager's SATS results at age 11 (and 14 if available).

Note: Please do not complete below if you are unsure about the information.

Age 11: English level _____ Maths level _____ Science level _____

Age 14: English level _____ Maths level _____ Science level _____

D) FAMILY CURRENT EMPLOYMENT (please tick)

	Mother	Father	Partner (if applicable)
Full-time work			
Part-time work			
Full-time in the home			
Unemployed/looking for work			
Unemployed for medical reasons			
Other (please describe, e.g., student or retired)			

If you are in paid employment, please state your current occupation:

Mother _____

Father _____

Partner (if applicable) _____

What s the approximate family income (before taxes are taken out)? (please circle)

1. Less than £10,000   2. £10,000-£20,000   3. £20,000-£30,000

4. £30,000-£50,000   5. £50,000-£75,000   6. £75,000-£100,000

7. Over £100,000

E) HEALTH OF IMPACT TEENAGER

1. Does this child **currently** suffer from any medical problems which require treatment or affect his/her daily life?

(please circle)   Yes   No

If yes, please give details (age, diagnosis and treatment):

_____

_____

2. Has he/she had any similar or related problems in the **past**?

(please circle)   Yes   No

If yes, please give details (age, diagnosis and treatment):

_____

_____

3. Is this child current taking any medicines?

(If appropriate, please include use of oral contraceptives)

(please circle)   Yes   No

If yes, please name, state dose and duration:

_____

_____

4. Has he/she ever been referred to a psychiatrist, psychologist or similar person before?

(please circle)   Yes   No

If yes, who was seen and why:

_____

_____

F) HEALTH OF FAMILY OF IMPACT TEENAGER

1. Does any other family member **currently** suffer any medical,

emotional or behavioural problems which affect their daily life?

(please circle)   Yes   No

If yes, please give details (age, diagnosis and treatment):

_____

_____

2. Has any other family member suffered any medical, emotional or

behavioural problems in the **past**?

(please circle)   Yes   No

If yes, please give details (age, diagnosis and treatment):

_____

_____

Thank you for completing this questionnaire

Appendix 4. Session record form

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

UNIVERSITY OF CAMBRIDGE
Developmental Psychiatry

Affix Study ID
Sticker

Therapy Session Record Form
Version 3, 24/01/2011

Session

Centre ……………………………………..   Date of birth [D] [D] / [M] [M] / [Y] [Y] [Y] [Y]

Session Number: Offered [ ] [ ]   Attended [ ] [ ]   (Please complete form for **All** sessions, even if subject does not attend)

Date of Session [D] [D] / [M] [M] / [Y] [Y] [Y] [Y]

Attended [ ]   Did not attend [ ]

Final planned session? [ ]   (subject discharged, case closed, etc)

Therapist Name (print) ………………………………………………………..

Details

Start time [H] [H] / [M] [M]   Finish time [H] [H] / [M] [M]

Session recorded?   Yes [ ]   No [ ]

Session	✔
As randomisation (CBT, STPP, SCC)	
Parent Session	
Crisis treatment	
Other	

Those present in session	✔
Subject	
Mother / Step mother	
Father / Step father	
Other (specify)	

Current medication Yes [ ]   No [ ]   Unsure [ ]   Drug …………………………………………………….
                                                                     Dose [ ] [ ] mg

Other treatment since last session? …………………………………………………………………………………………..

Name ………………………….   Signature ………………………….   Date [D] [D] / [M] [M] / [Y] [Y] [Y] [Y]

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Appendix 5. End of treatment form

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

UNIVERSITY OF CAMBRIDGE
Developmental Psychiatry
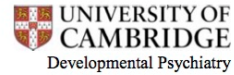
End of treatment form

Version 3, 20/10/2011

Affix Subject ID Sticker

(To be completed at end of Impact treatment prescribed sessions: SCC - 12   CBT - 20   STPP – 28, or if case closed sooner)

Subject

Centre ………………………………………….

Date of birth D D / M M / Y Y Y Y

Randomised treatment details

First treatment date D D / M M / Y Y Y Y

Last treatment date D D / M M / Y Y Y Y

Number of sessions   offered ☐☐   attended ☐☐

Outcome at end of treatment	✓	
Discharged by mutual agreement as improved		
Discharged by mutual agreement as therapy not felt to be helping		
Subject has withdrawn from treatment		
Does not attend		
Practical (Subject moves etc)		**Specify**
Serious Adverse Event		
Continuing with allocated treatment		
Other		

Comments: ………..

Current status

Subject will receive further intervention?   Yes ☐   No ☐

Details of planned or ongoing intervention (Additional CAMHS care, Social Services, adult mental health services etc):

Name ……………………………….   Signature ……………………………….   Date D D / M M / Y Y Y Y

Appendix 6. IMPACT-ME interview schedule: Time 2 adolescent version

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds
Anna Freud Centre

Overcoming depression in adolescence: the experience of young people and their families

Experience of Therapy Interview – Young Person

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

- Can you tell me how you came to be referred to the CAMHS service [use name of clinic, if known]? 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 has made things get like they were? how did the whole thing begin? 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 about a year ago]

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[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 the 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 affected 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 kinds 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 like? 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 meeting 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 suggestion for us regarding the research side of the study?

Version 3, March 12

Appendix 7. IMPACT-ME interview schedule: Time 2 therapist version

Overcoming depression in adolescence: the experience of young people and their families

Experience of Therapy Interview - Therapist

The key areas to be explored would be:

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 [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?

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- 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 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 young person's treatment ended prematurely: In what way might your actions have contributed to this young person'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 this 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-taping sessions*
- Delivering therapy in a fixed time frame
- Filling in forms
- The YP's regular meetings with an RA*
- Being part of a large, national-study
- Any other

- 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?

Appendix 8. IMPACT-ME interview schedule: Time 3 adolescent version

Thinking back about therapy interview – Young Person

"So it's been 12 months since we last saw you and this is the final research meeting. We aren't trying to test your memory and see if you tell us the same things as you told us before – we're interested in how you see things now.

1. Your life since the last IMPACT-ME interview

(the idea is to get a sense of things since their last IMPACT-ME interview, so we should try to introduce things in a way that will convey this e.g. 'since I last saw you', 'since Sally last saw you' etc)

- How are things now?

- What has been going on in your life over the last 12 months [since we last saw you]?
  (E.g. life events, school, family, friends)

- How have things been for you over the last 12 months?'

- If you compare today with how things were 12 months ago, have things changed? How are things similar or different? (Concrete examples)

- *Explore how change/non-change has come about*

- What has made things get better/worse/stay the same?

- *Explore how change has been sustained*

2. Thinking back about your referral to CAMHS

- Thinking about it now, how do you make sense of what was going on for you when you were first referred to CAMHS? How did the whole thing begin?

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- Is that different to how you understood it a year ago?

3. Thinking back about your therapy

[Establish whether YP is still in therapy and whether they have received any further treatment/help]

- What has stayed with you from the therapy you received? Why?

- What do you remember from your IMPACT therapy?'

- Do you ever find that moments from your therapy pop into your head? When? Like what?

- What kind of things about your therapist/ therapy do you think about? What kind of situations make you think of your therapy/ therapist? What does it feel like when you think about your therapy/ therapist?)

- What things about therapy/ your therapist do you remember the most?

- Has how you see your therapy changed compared to when you finished therapy?

- Thinking about it now – can you tell me about your experience of therapy?

- Was medication ever discussed with you? [Explore – what happened / feelings about this].

- Can you tell me about the ending of the therapy? Thinking about it now, how do you feel about the way therapy ended?

- What was it like for you knowing that your therapy was a time-limited intervention?

If still in therapy with same therapist:
- How did the decision to continue with therapy come about?
- How has your therapy been going over the last year?
- Do you ever discuss the ending of your therapy in your sessions?

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If started therapy again:
- How did the decision to start therapy again come about?
- What has your experience of therapy been like this time? [Go through story of therapy in relation to new therapy]
- (If therapy is with different therapist) How is it similar/ different to the therapy you were receiving before? (Concrete examples)
- How do you feel about being in therapy now compared to the last time?
- What do you hope will come out of your therapy this time? How do you hope things will be different?

[Story of therapy prompts: relationship with therapist, specific moments, parents involvement, ending]

[If yp has had more than one therapist, ask about IMPACT therapy and then therapy they have had since]

4. Your therapy and its effect on your life today

Explore the role of therapy in any changes/non-changes in their lives and how they've coped/haven't coped with any new difficulties that have come up

- Now that we've talked about therapy, do you feel that your therapy is linked to the changes? [**NB.** Summarise changes/non-changes] *(IF YES – how/why?)*

- If no change, ask why do you think therapy didn't make any difference

- Do you feel that your experiences of therapy have affected your views now about how things began/what was going on at the time when you were first referred to the [name of clinic]? *(IF YES – how/why?)*

5. Your experience of IMPACT research

"As this is your final IMPACT research meeting, 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?

- Can you tell me a bit about the regular meetings with the research assistants?
  [N.B. If the meetings with RA are compared with meetings with the therapist, explore this comparison.]

- Can you tell me how you feel about the ending of your research meetings?

Appendix 9. NHS ethical approval

NHS

National Research Ethics Service

Cambridgeshire 2 Research Ethics Committee
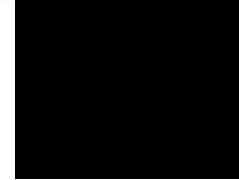
04 December 2009
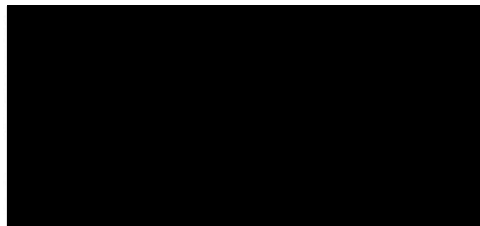
Dear Prof Goodyer

Study Title:	**Randomised Controlled Trial of Short term Psychodynamic Psychotherapy (STPP), Cognitive Behaviour Therapy (CBT) and Specialist Clinical Care (SCC) in adolescents with moderate to severe depression attending routine child and adolescent mental health clinics**
REC reference number:	09/H0308/137
Protocol number:	3

Background to letter –Study approved 9 October 2009

This letter is a re-issue of the REC approval letter of 9 October 2009 (Second Letter) for the purposes of correcting an administrative error in the list of approved documents in the original letter. The parent/guardian consent form, dated 11 September 2009, Version 5, had inadvertently been omitted from the list, though it had been reviewed and approved. That document is now included on the list of approved documents.

The date of approval of the study remains 9 October 2009.

I apologise for any inconvenience caused by this omission.

Re-issue of approval letter to correct administrative error

Thank you for your letter of 09 October 2009, enclosing the amended IRAS form listed below, as referred to in the Committee's first letter of today's date.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below:

This Research Ethics Committee is an advisory committee to East of England Strategic Health Authority.
The National Research Ethics Service (NRES) represents the NRES Directorate within
the National Patient Safety Agency and Research Ethics Committees in England

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk. *Where the only involvement of the NHS organisation is as a Participant Identification Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.*

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Check list		19 June 2009
Investigator CV	Prof Goodyer	19 June 2009
Summary/Synopsis	2 Flow chart attachment to PIS	05 May 2009
Questionnaire: RTSHIA		
Questionnaire: DEQ (A and S)		
Questionnaire: DES-IV		
Questionnaire: NEO-FFI		
Questionnaire: YPQ (incorporating MFQ, RCMAS, LOI, RSES and Behaviour checklist)		
GP/Consultant Information Sheets	3	27 April 2009
Questionnaire: K-SADS-PL(Depressive disorders, Depression supplement, pyschosis supplement, panic disorder supplement, attention deficit hyperactivity disorder supplement, alcohol abuse supplement)		
Questionnaire: DSC		
Questionnaire: SCL-90		
Questionnaire: WAI-S (Therapist,Client)		
Questionnaire: APQ (Child, parent, APQ-P-S, APQ-C-S)		

Questionnaire: HCAM		
Questionnaire: CDRS		
Questionnaire: CGI		
Questionnaire: HoNOSCA		
Questionnaire: ZAN-BPD		
Questionnaire: Early experiences (non-validated)	2	01 March 2006
Questionnaire: Life events (non-validated)	8	10 August 2005
Questionnaire: Friendships (non-validated)	6	01 February 2008
Questionnaire: C-SSRS		
Questionnaire: CA-SUS		
Measures Glossary	3	18 May 2009
Questionnaire: FAD		
Questionnaire: RRS		
letter from funder (NIHR)		13 May 2008
Protocol	3	19 May 2009
REC application 26218/67654/1/699		19 June 2009
Response to Request for Further Information		09 October 2009
study Timeline	4	15 July 2009
E-mail from CI re study timeline		15 July 2009
Participant Information Sheet: Child 16-17	10	11 September 2009
Participant Information Sheet: Child 11-15	10	11 September 2009
Participant Information Sheet: Parent	5	11 September 2009
Participant Consent Form – Parent/Guardian	5	11 September 2009
Participant Consent Form	4	04 August 2009
Participant Consent Form: assent	4	04 August 2009
Lone Working Policy	1	24 August 2009
Participant Consent Form: saliva	1	04 August 2009
Participant Consent Form: assent saliva	1	04 August 2009
Letter from UOC insurance team		28 July 2009
E-mail with response from Prof Goodyer		06 October 2009
Response to Request for Further Information		06 October 2009

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

This Research Ethics Committee is an advisory committee to East of England Strategic Health Authority
The National Research Ethics Service (NRES) represents the NRES Directorate within
the National Patient Safety Agency and Research Ethics Committees in England

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email

| 09/H0308/137 | Please quote this number on all correspondence |

Yours sincerely

Enclosures: "After ethical review – guidance for researchers"

Copy to:

Appendix 10. IMPACT information sheet: Adolescent version (11-15 year olds)

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

IMPACT ID:………

Study Information for Young People (11-15)

We're inviting you to take part in IMPACT, a study looking at which of 3 treatments for young people with depressive illness is best. Before you decide whether to join in, it's important you know why the research is being done and what it involves. Please read this leaflet carefully and, if you want to, discuss it with your family or doctor.

What is IMPACT?
IMPACT is a study comparing 3 treatments for young people with depression which we know can work and are widely used - however we don't know which one is the best. On the next page we will tell you more about these treatments and what they may involve.

Who is involved?
540 young people aged 11-17 will be asked to join IMPACT and like you they will currently have a depressive illness.

Do I have to take part?
No it is up to you! If you do decide to join IMPACT we'll ask you and your parent/carer to sign a form saying you understand what's involved and agree to take part.

During IMPACT we will tell you any important new information or changes to the study which may affect whether you'd like to take part. If you decide you don't want to do it anymore, *you can stop at any time without giving us a reason* and your treatment will be the same as what you would have received if you had never taken part in IMPACT. Any future health care you receive will not be affected if you decide to leave the study.

I'd like to take part - what happens now?
If you do enter the IMPACT study, there is an equal chance of receiving any of the 3 treatments. A computer will randomly choose which one you get – you *won't be able to choose which therapy you receive*. All treatments will last for about 30 weeks. If you're not feeling any better after the first 4-6 weeks or if things get worse at any time, we will talk through your options with you and discuss any changes that need to be made to your treatment.

At the back of this letter there's a diagram explaining what happens during IMPACT. First you'll meet an IMPACT research worker who'll ask you about depression and any other problems that you may have, which may last 2-3 hours. They will also bring some questionnaires for you to fill in about your moods and

feelings. The information that we get from you at this first appointment will help us to decide whether you will be suitable for you to enter the IMPACT study. If so, you will see the research worker five more times after the treatment starts. If, after the first meeting with the researcher, IMPACT is not right for you at this time, the researcher will contact the clinic (who referred you to IMPACT) to arrange another appointment with them.

We think hormones and certain genes may affect the time it takes people to get better from depression. We also think that treatment will change hormone levels to more normal levels. To measure this we collect saliva (spit), we do *not* do blood tests. If you are happy to give us saliva samples, we will ask you to collect them three times a day for two days, after the first assessment, and after the 36 week assessment. If you don't want to provide the samples you can still take part in IMPACT.

Why will I see a research worker?
These appointments will help us to compare whether one treatment works better than another. The research interviews may be recorded using digital recorders, which will be stored without your name, on a secure, encrypted University computer. We will also be recording the therapy sessions to check the treatments are being given properly and these recordings could also provide very valuable information for other researchers looking at how the different treatments work. We would like your permission for other researchers to be able to use these recordings for their research. Again, no one would know your name, or who you are. They will be kept for 10 years after the study has ended and will then be destroyed. As a thank you for seeing the Research Worker, we will pay you £10 each time you meeting and a further £30 for saliva samples. We'll also refund any money you spend travelling to your research appointment.

What are the treatments and what do they involve?
Here is a summary of the different treatments, but your clinician will explain in more detail what you can expect during your sessions with them.

1) **Cognitive Behavioural therapy (CBT)**
   This involves coming to the clinic once a week for 12 weeks, and then every 2 weeks for about 4 months after that. In these sessions you'll learn about dealing with emotions such as sadness and the unhelpful thoughts that often occur in depression.
2) **Short Term Psychoanalytic Psychotherapy (STPP)**
   In STPP you will attend the clinic weekly for 28 sessions of 50 minutes. The therapist will take time to get to know you as a person, your likes and dislikes, and how these might contribute to troubling feelings. You will be helped to understand how these feelings interfere with your daily life.
3) **Specialist Clinical Care (SCC)**
   This treatment includes seeing a clinician for around 12 sessions over 30 weeks, in appointments lasting around 45 minutes. During these sessions you will be able to talk about your problems, and your clinician will help you understand what depression is, how it affects you and give you practical advice.

In any of the treatments your clinician may suggest that your parent/carer attends sessions with you - this will be explained and agreed with you first. Appointments with therapists will also be recorded on audio tapes and stored in the same way as the researcher interview tapes. If you and your clinician feel it is necessary,

other professionals in the clinic may also be asked to help you. For example, they may discuss additional treatments such as medication.

Are there any other ways of treating my condition?
It is sometimes helpful if everyone in the family talks together, so you may be offered family sessions.

Are there any disadvantages to taking part in the study?
There are no known disadvantages to taking part in this study. All 3 treatments are widely used and known to be effective. What we do not know is which treatment results in the quickest recovery and is best at preventing depression returning in the months after recovery.

What are the possible benefits of taking part?
We hope this study will help us decide which treatment works best for different young people in the future.

What happens when the trial stops?
At the end of the study, your clinician will discuss with you and your carers about whether you need further treatment, and if so what type is most appropriate.

What if something goes wrong?
All the treatments in this study are currently being given as part of routine NHS care. If you have any complaints about clinical care in IMPACT this will be dealt with through the normal NHS procedures. Compensation for any injury caused by the management or conduct of this study will be in accordance with NHS guidance. You can ask for a copy of these procedures and NHS compensation guidelines. Any harm caused by the design of the research is covered by the University of Cambridge. If you have any complaints about the research part of IMPACT, then please contact the researcher whose details are at the end of this letter.

Confidentiality – who will know I am taking part in this study?
We will tell your GP that you're taking part in IMPACT. All information collected about you during the research will be kept *strictly confidential* in keeping with usual NHS guidelines. Cambridge and Peterborough NHS Foundation Trust staff and staff from other involved NHS trusts may access your data from the study to check IMPACT is meeting their standards for good research. Information leaving the clinic for research purposes will not have your name on it or anything else which could identify you.

What will happen to any samples I give?
Saliva samples will *not have your name on them*, only an identification code. We'll ask your parents to post your saliva to our Cambridge office, where it will be stored in a freezer. From there samples will be taken to a laboratory without your name on.

Will any genetic tests be done?
We will look at what type of genes you have (but not do genetic tests) because we think some genes may affect how well a treatment works. We would like to store the part of saliva that contains your genes (called DNA) after the study, in case future research tells us that we should test it for any more genes. Any future testing would also be carried out without your name on the sample. You decide by giving specific permission whether we can store your DNA after the study, otherwise we shall destroy your samples after IMPACT finishes.

Who is organising and funding the study?
IMPACT is jointly organised by the Departments of Child and Adolescent Psychiatry in the Universities of Cambridge, East Anglia, London and Manchester. The study is funded by the Health Technology Assessment National Institute of Health Research which is a government organisation. Although the study will last for 4 years, you will be involved for about one and three quarter years.

Is my clinician being paid for including me in the study?
None of the clinicians taking part are being paid for including you in the study.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridgeshire 2 Research Ethics Committee.

What will happen to the results of the study? At the end of IMPACT we'll write to everyone involved with results news, which will later be published in science journals, but with *no personal information so you cannot be identified.*

I have some questions about IMPACT, who do I ask? The clinician or research worker who gave you this form will answer your questions or concerns. For more information, or to talk with your local IMPACT researcher, please contact:

For independent advice please contact the Patient Advice and Liaison Service (PALS) in your area. Visit www.pals.nhs.uk and use the links to 'contact us' or 'find your nearest PALS office'.

What happens in IMPACT?

| START | A clinician invites you to join IMPACT- you will be contacted by a research worker who will check you can take part. You will be given an information leaflet and asked to give your consent. |

A computer decides at random which treatment you'll receive

Cognitive Behavioural Therapy (CBT)

Short term psychoanalytic psychotherapy

Specialist Clinical Care

You'll start your treatment shortly after joining IMPACT; this chart outlines the research interviews which occur in addition to the treatment but occur at another time

WEEK 1
You and your parents will meet with an IMPACT researcher to complete your first assessment.

WEEK 6 & 12 during treatment
You'll meet a research worker for your 2nd and 3rd assessment.

WEEK 36
End of treatment- you'll see a research worker for your 4th assessment.

WEEK 52 & 86
The research worker will visit you twice after the end of your treatment.

Appendix 11. IMPACT information sheet: Adolescent version (16-17 year olds)

IMPACT
Improving **M**ood with
Psychoanalytic **A**nd **C**ognitive **T**herapies

IMPACT ID:………

Study information for young people aged 16-17

We're inviting you to take part in IMPACT, a study looking at which of 3 treatments for young people with depressive illness is best. Before you decide if you want to join in, it's important you understand why the research is being done and what it will involve. Please read this leaflet carefully and if you want discuss it with your family, friends, doctor or nurse.

What is IMPACT?
IMPACT is a study comparing three treatments for young people with depressive illness. Two of the treatments are special forms of counselling called 'cognitive–behaviour therapy' and 'short term psychoanalytic psychotherapy'. The third treatment is called routine 'specialist clinical care'. All these are widely used in the NHS and there is evidence that they *all* work - however we don't know which one is best for you.

Who is involved?
540 young people will be asked to join IMPACT. Like you, they will be between the ages of 11-17 and currently have a depressive illness and are attending child and adolescent mental health services (CAMHS).

Do I have to take part?
No, it is for you to decide! If you do want to join IMPACT we'll ask you to sign a form saying you agree to take part and understand what the research involves. You'll get a copy of that along with this information sheet to keep. During IMPACT you will be told of any important new information or changes to the study which may affect whether you'd like to be involved. If you decide you don't want to do it anymore, *you can stop at any time without giving us a reason.* You then will be treated by your local CAMHS team, and your treatment will be no different to that you would have received if you had never taken part in IMPACT. Any future health care you receive will not be affected by your decision to leave the study.

I'd like to take part- what happens now?
Because we don't know which treatment works the best, we need to compare them. If you do enter the IMPACT study, there is an equal chance of receiving any of the 3 treatments. As a computer will randomly choose which one you get - you *will not be able to choose which therapy you receive.*

Your progress will be closely monitored and if you're not feeling any better after the first 4 - 6 weeks or if things get worse at any time, your clinician will talk to you about the options and any necessary changes to your treatment. The next section tells you a bit more about the different types of treatments you could receive.

At the back of this leaflet there is a diagram explaining what happens in IMPACT. First you'll have an interview with an IMPACT research worker which may last 2-3 hours, where they'll ask you about depression and any other problems that you may have. They will also bring some questionnaires for you to fill in about your moods, feelings, thoughts and behaviours. The information that we get from you at this first appointment will enable us to decide whether you will be suitable for you to enter the IMPACT study. If so, you will next see the research worker 6 weeks after the treatment has started, and then again 6 weeks after that. You will have a further 3 appointments with them: at 8 months following the beginning of treatment, at 12 months and a final meeting 20 months after you first started the treatment. If, after the first meeting with the researcher, IMPACT is not right for you at this time, the researcher will contact your clinician (who referred you to IMPACT) to arrange another appointment with them.

We think that the amount of the hormone cortisol and certain genes in peoples' brains may influence their response to treatment. We also think that treatment will change hormone levels to more normal levels. To investigate this we need to measure cortisol levels and what genes people have by collecting saliva (spit), we do *not* need to do blood tests. If you are happy to give us the saliva samples, we will ask you to collect them three times a day for two days, after the first assessment and after the 36 week assessment. If you do not want to provide the samples you can still take part in the research.

Why will I see a research worker?
These appointments will help us gather the data to compare whether one treatment appears to work better than another. For quality control purposes, some research interviews will be recorded using digital recorders. These recordings will be stored, without your name, on a secure, encrypted University Computer for 10 years after the study has ended and will then be destroyed. We will also be recording the therapy sessions to check the treatments are being given properly and these recordings could also provide very valuable information for researchers looking at how the different treatments work. We would like your permission for researchers working in mental health to be able to use these recordings for their research. Again, no one would know your name, or who you are, the recordings will have an ID number only.

You will be paid £10 each time you meet the research worker, with an additional £30 for producing the saliva samples as a thank you for taking part. We'll also refund any money you spend travelling to your research appointment.

What are the treatments and what do they involve?
Here is a summary of the different treatments, but your clinician will explain in more detail what you can expect during your sessions with them.

1) Cognitive Behavioural therapy (CBT)
This involves coming to the clinic once a week, every week for 12 weeks and then every two weeks for about 4 months after that. Each session will last for around 45 minutes and will involve you keeping a diary and completing some work at home. In this time you'll learn how to recognise emotions such as sadness and unhelpful thoughts that often occur in depression and how to deal with them.

2) Short Term Psychoanalytic Psychotherapy (STPP)
In STPP you will attend the clinic weekly for 28 sessions of 50 minutes. The therapist will take time to get to know you as a person, your likes and dislikes, and

how these might contribute to troubling feelings. You will be helped to understand how these feelings interfere with your daily life, your mood and with relationships at home, at school and with your peers. Your parents/carers may be invited to some separate appointments with a different therapist to help them understand the current situation.

3) Specialist Clinical Care (SCC)

This treatment means coming to a clinic for around 12 sessions over 30 weeks, seeing a clinician in appointments lasting around 45 minutes. During these sessions you will be able to discuss your problems, and your clinician will help you understand what depression is, how it affects you and give you practical advice.

In any of the above treatments your clinician may suggest that your parent or carer attends sessions with you - this will be explained and agreed with you first. Appointments with therapists will be recorded on audio tapes and stored in the same way as the research interview tapes. In addition to these treatments, if you and your clinician feel it is necessary other professionals in the clinic may also be invited to help you. For example, they may discuss additional treatments such as medication.

Are there any other ways of treating my condition?

Sometimes it helps young people with depressive feelings if everyone in the family talks together, so you may be offered family sessions.

Are there any disadvantages to taking part in the study?

There are no known disadvantages to taking part in this study. All three treatments are widely used and known to be effective. What we do not know is which treatment results in the quickest recovery and, importantly, prevents your depression coming back in the months after recovery.

What are the possible benefits of taking part?

The information we will obtain from the study will help us to improve deciding which of these effective treatments works best for which depressed young person.

What happens when the trial stops?

At the end of the study, your clinician and other members of the research team will talk with you and your carers about whether you need any more treatment, and if so what type is most appropriate. Your clinician will explain the options to you.

What if something goes wrong?

All the treatments in this study are currently being given as part of routine NHS care. If you have any complaints about clinical care in IMPACT this will be dealt with through the normal NHS procedures. Compensation for any injury caused by the management or conduct of this study will be in accordance with NHS guidance. You can ask for a copy of these procedures and NHS compensation guidelines. Any harm caused by the design of the research is covered by the University of Cambridge. If you have any complaints about the research part of IMPACT, then please contact the researcher whose details are at the end of this letter.

Confidentiality – who will know I am taking part in this study?

Your GP will be notified that you're taking part in IMPACT. All information which is collected about you during the research will be kept strictly confidential in

accordance with usual NHS practice. Members of staff from Cambridge and Peterborough NHS Foundation Trust and other involved NHS trusts may need to access data from the study for audit and monitoring purposes. Any information which leaves the clinic for research purposes will not carry your name or any other personal identification so you cannot be recognised.

What will happen to any samples I give?
Saliva samples will *not have your name on them*, only an identification code. We'll ask you to post your saliva to our Cambridge office, where it will be stored in a freezer and then taken to a laboratory. These samples will just have identification codes on and so your name will not go to the laboratory.

Will any genetic tests be done?
We will do genetic identification but *not* genetic tests, as we think people's genes may influence their treatment response. We would like to store your DNA sample (the part of the saliva that contains your genes) after the study, as future research may suggest we test it for other genes as well as the ones we plan to identify now.

Any future testing would be carried out without your name on the sample. It is up to you whether we store this DNA after the study and we shall only do this if you give us specific permission on the consent form. If you do not want us to do this, we shall destroy your samples after the study. We would need separate permission from an ethics committee to carry out these additional tests after the study.

What's so interesting about genes? Serotonin is a chemical in our brains which is thought to be associated with low mood and depressive feelings in some people who have low levels. In IMPACT we want to identify genes in the serotonin pathway, as we think differences in people's genes may affect the amount of the serotonin chemical in their brains. It is thought that people's genes may guide their responses to treatment. As we don't know yet if these genes affect whether you will get better, we do not think it would be helpful to inform you or your treating doctor the results of these tests.

Who is organising and funding the study?
IMPACT is jointly organised by the Departments of Child and Adolescent Psychiatry in the Universities of Cambridge, East Anglia, London and Manchester. The study is to be funded by the Health Technology Assessment National Institute of Health Research which is a government organisation. Although the study will last for 4 years, your involvement will be for about one and three quarter years.

Is my clinician being paid for including me in the study?
None of the clinicians taking part are being paid for including you in the study.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridgeshire 2 Research Ethics Committee.

What will happen to the results of the study?
At the end of IMPACT we'll write to everyone involved with results news, which will later be published in science journals, but with *no personal information so you cannot be identified.*

I have some questions about IMPACT, who do I ask?

The clinician or research worker who gave you this form will answer questions or concerns you might have. If you would like more information, or to talk with one of the managers of the study, then please contact:

Should you want independent advice please contact the Patient Advice and Liaison Service (PALS) for your area. One way to do this is go to www.pals.nhs.uk and use the link to 'contact us' or 'find your nearest PALS office'.

Thank you very much for reading this information sheet about IMPACT- we hope you decide to take part in this study.

What happens in IMPACT?

| START | → | A clinician invites you to join IMPACT- you will be contacted by a research worker who will check you can take part. You will be given an information leaflet and asked to give your consent. |

A computer decides at random which treatment you'll receive

Cognitive Behavioural Therapy (CBT)

Short term psychoanalytic psychotherapy

Specialist Clinical Care

You'll start your treatment shortly after joining IMPACT; this chart outlines the research interviews which occur in addition to the treatment but occur at another time

WEEK 1
You and your parents will meet with an IMPACT researcher to complete your first assessment.

↓

WEEK 6 & 12 during treatment
You'll meet a research worker for your 2nd and 3rd assessment.

↓

WEEK 36
End of treatment- you'll see a research worker for your 4th assessment.

↓

WEEK 52 & 86
The research worker will visit you twice after the end of your treatment.

Appendix 12. IMPACT information sheet: Parent version

IMPACT ID:………

IMPACT

Improving **M**ood with
Psychoanalytic **A**nd **C**ognitive **T**herapies

Study information for Parent and Carers

We would like to invite your child to take part in IMPACT, a study investigating which of 3 treatments for young people with depressive illness is best. Firstly, it is important you understand why the research is being done and what it involves. Please read this information and if you like discuss it with your friends, family or GP.

What is IMPACT?
IMPACT will compare 3 treatments for young people with depressive illness, all of which can work and are already widely used in the NHS - however we don't know which one is most effective for young people. On the next page there is a short summary of what you and your child can expect with each of these 3 therapies.

Why has my child been invited?
540 adolescents will be invited to join IMPACT because they attend child and adolescent mental health services (CAMHS) and have a depressive illness.

Do they have to take part?
No, it is up to you and your child to decide. If you do want to join in we'll ask you to sign a consent form, a copy of which you can keep with this leaflet. During IMPACT you will be informed of any information or changes to the study which may affect your willingness to continue taking part. Both you and your child are free to withdraw at any point *without giving us a reason.* In this instance, your child will be treated by your local CAMHS team and their treatment will be no different to if they had never taken part in IMPACT. Any future care your child or family receive will not be affected by their decision to leave the study.

We'd like to take part- what happens now?
If you do enter the IMPACT study, there is an equal chance your child will receive any of the 3 treatments, as a computer will randomly choose which one they get – *neither you nor your child will be able to choose which therapy they receive.* All treatments should last for around 30 weeks. Your child's progress will be closely monitored - if they're not feeling better after the first 4-6 weeks or if things get worse at any time, the clinician will discuss with you both the options including any changes to their treatment.

Your child: Firstly they'll have an interview with an IMPACT research worker, lasting about 2-3 hours where they'll discuss depressive feelings and any other problems they may have. The information that we get from this first appointment will enable us to decide whether your child will be suitable for you to enter the IMPACT study. If so, they'll next see the research worker 6 weeks after the treatment has started, and then there'll be a further 4 appointments culminating in a final meeting 20 months following the start of treatment. Young people will

be given a £10 thank you and refunded any travel expenses for attending these appointments. If, after the first meeting with the researcher, IMPACT is not right for your child at this time, the researcher will contact your clinician (who referred you to IMPACT) to arrange another appointment with them.

We're also looking at whether certain hormones in peoples' brains and the genes they have affect treatment success, and whether treatment changes hormone levels. We can measure hormone levels and genes from saliva (spit), we do not need to do blood tests. We would like you and your child to collect their saliva three times a day for two days after the first assessment and after the 36 week assessment, for which we'll give them a £30 thank you.

What we would like you to do: An IMPACT research worker will contact you about an appointment where we can meet and discuss your child's early years with you. We will also ask you about life events and for information about their physical and emotional health, and that of other family members (including yourself).

Why will we see a research worker?
These appointments are important as they help us gather data to compare whether one treatment appears to work better than another. For quality control purposes the therapy sessions and research appointments will be recorded using digital recorders. As well as being used for checking the treatments are being given properly, the recordings could also provide very valuable information for researchers looking at how the different treatments work and we would also like your permission for researchers working in mental health to be able to use these recordings for their research. No one would know your child's name, or who you are - the recordings will have an ID number only.
These recordings will be stored, without your name, on a secure, encrypted University Computer for 10 years after the study has ended and will then be destroyed. All information in IMPACT is stored by identification number not names, and is *strictly confidential*-only the research team of principal investigators, research workers and statisticians will have access to the information you provide.

What are the treatments and what do they involve?
Here is a summary of the different treatments, but the clinician will explain in more detail what you and your child can expect.

1) **Cognitive Behavioural therapy (CBT)**
   This treatment involves your child coming to the clinic once a week, every week for 12 weeks and then every 2 weeks for about 4 months after that. Each session will last for around 45 minutes and will involve your child keeping a diary and completing some work at home. They'll learn to recognise emotions such as sadness and unhelpful thoughts that often occur in depression and how to deal with them.

2) **Short Term Psychoanalytic Psychotherapy (STPP)**
   In STPP you will attend the clinic weekly for 28 sessions of 50 minutes. The therapist will take time to get to know you as a person, your likes and dislikes, and how these might contribute to troubling feelings. You will be helped to understand how these feelings interfere with your daily life, your mood and with relationships at home, at school and with your peers. Your parents/carers may be invited to some separate appointments with a different therapist to help them understand the current situation.

3) **Specialist Clinical Care (SCC)**

This treatment entails your child coming to a clinic for around 12 sessions over 30 weeks in appointments lasting around 45 minutes. During these sessions they will be able to discuss their problems and helped to understand what depression is, how it affects them and given practical advice about how to deal with these difficulties.

In any of the above treatments the clinician may suggest that you attend some sessions jointly with your child- this will be explained and agreed with you both first. Sometimes appointments may be recorded onto audio tapes which will be kept unnamed, in a locked filing cabinet in a locked room, for ten years after the end of the study and then destroyed. These are listened to by the clinician with another research team member to ensure that the treatment is of the best quality. If necessary other professionals may be invited to come and discuss additional treatments such as medication with you and your child.

Are there other ways of treating depressive illness in adolescents?
It sometimes helps young people with depressive feelings if everyone in the family talks together, so family sessions may be offered.

Are there any disadvantages to taking part in the study?
There are no known disadvantages to taking part in this study, as all 3 treatments are widely used and known to be effective. What we do not know is which treatment results in the quickest recovery and prevents the depression coming back in the months after recovery. Some young people can find it upsetting talking about their thoughts and feelings, but this usually gets better as treatment progresses. It is important that you understand a computer will allocate which treatment your child receives so you w*on't be able to choose*.

What are the possible benefits of taking part?
It cannot be guaranteed, but previous studies allow us to hope that these treatments will help young people with depression and some of their other problems too. The information we will obtain from the study will help us to improve deciding which of these treatments works best for which depressed young person.

What happens when the trial stops?
At the end of the study, the clinician and other members of the research team will talk with you and your child about whether further treatment is required and which type is most appropriate. The clinician will explain the options to you.

What if something goes wrong?
All the treatments in this study are currently being given as part of routine NHS care. If you have any complaints about clinical care in IMPACT this will be dealt with through the normal NHS procedures. Compensation for any injury caused by the management or conduct of this study will be in accordance with NHS guidance. You can ask for a copy of these procedures and NHS compensation guidelines. Any harm caused by the design of the research is covered by the University of Cambridge. If you have any complaints about the research part of IMPACT, then please contact the researcher whose details are at the end of this letter.

Confidentiality – who will know we are taking part in this study?
Your child's GP will be notified that they're taking part in IMPACT. All information collected about you and your child during the research will be kept *strictly*

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confidential in keeping with usual NHS guidelines. Cambridge and Peterborough NHS Foundation Trust staff and staff from other involved NHS Trusts may access your data from the study to check IMPACT is meeting their standards for good research. Information leaving the clinic for research purposes will have neither of your names on or any other identifying information.

What will happen to any samples my child gives?
Saliva samples will *not have names on them*, only an identification code. We'll ask you to post their saliva to our Cambridge office, where they will be stored in a freezer and then taken (without names on) to a laboratory.

Will any genetic tests be done?
We would like to test your child's saliva for some genes that we think may affect how well they respond to treatment. We would like to store the part of the saliva that contains their genes (DNA) after the study, in case future research tells us that we should test it for other genes. It is up to you whether we store this DNA after the study and we shall only do this if you give us specific permission on the consent form. If you do not want us to do this, we shall destroy your child's samples after the study. We would need separate permission from an ethics committee to carry out these additional tests after the study. We will identify genes in the serotonin pathway. Serotonin is a chemical in the brain that when depleted is associated with lower mood in some but not all individuals. Variations in serotonin genes may be associated with lower or higher levels in the brain and therefore be markers of treatment response. We do not yet know if these genes affect whether your child will get better, so we don't think it would be helpful to inform either you or their treating doctor the results of these tests.

Who is organising and funding the study?
The study is organised jointly by the University Departments of Child and Adolescent Psychiatry in Cambridge, Universities of East Anglia, London and Manchester. The study is funded by the Health Technology Assessment National Institute of Health Research which is a government organisation. Although the study will last for 4 years, your child's involvement will be for 21 months (about one and three quarter years).

Is my child's clinician being paid for including them in the study?
None of the clinicians taking part are being paid for including your child in the study.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridgeshire 2 Research Ethics Committee.

What will happen to the results of the study?
We will write to everyone who has taken part in the study at the end to tell them the results and the results will be later published in scientific journals, but with no information to identify you or your child.

I have some questions about IMPACT, who do I contact?
The clinician or research worker who gave you this form can answer any questions or concerns you might have. If you would like more information or to talk with one of the managers of the study, then please contact:

Should you want independent advice please contact the '**Patient Advice and Liaison Service' (PALS)** for your area. One way to do this is go to www.pals.nhs.uk and use the link to 'contact us' or 'find your nearest PALS office'.

Thank you very much for reading this information sheet about IMPACT- we hope you decide to take part in this study.

Appendix 13. IMPACT adolescent assent form (11-15 year olds)

IMPACT
Improving Mood with
Psychoanalytic **A**nd **C**ognitive Therapies

Barnet, Enfield and Haringey **NHS**
Mental Health NHS Trust

PARTICIPANT ASSENT FORM
ID number:..........

This form should be completed either by the **young person** who will take part in IMPACT, or by their parent/guardian on their behalf.

Please circle the below statements which you agree with:

Have you read (or had read to you) information about IMPACT?   YES/NO

Has somebody explained IMPACT to you?   YES/NO

Do you understand what IMPACT is about?   YES/NO

Have you asked all the questions you want?   YES/NO

Have you had your questions answered in an understandable way?   YES/NO

Do you understand it's ok to stop taking part at any time?   YES/NO

Do you agree to take part?   YES/NO

Do you agree to a researcher contacting you after the end   YES/NO
of the IMPACT study about possible future research and follow up?

If any answers to the above are 'no' or if you don't want to take part, don't sign your name!

$\longrightarrow$ If you do want to take part, you can write your name below:

Your name……………………………………………………**.**Date…………………

$\longrightarrow$ The researcher who explained this project to you needs to sign too

Print name …………………………………………………….

Signed…...…………………………………………………Date………………..

Thank you for your help

4 August 2009/Version 4

Appendix 14. IMPACT adolescent consent form (16-17 year olds)

IMPACT ID:…………..

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Barnet, Enfield and Haringey **NHS**
Mental Health NHS Trust

PARTICIPANT CONSENT FORM
Young person

1. I confirm that I have read and I understand the information sheet dated 11th May 2011 for the above study. I have had the opportunity to consider the information, and ask questions, and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I'm free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.

3. I understand that relevant sections of medical notes and data collected during the study from myself may be looked at by individuals from the IMPACT research team, from regulatory authorities or from the NHS Trust, where it is relevant to me taking part in this research. I give permission for these individuals to have access to my records.

4. I agree to my therapy and research sessions being recorded for quality control, and that other researchers working in mental health research can have access to recordings made as part of the study.

5. I agree to my GP being informed of my participation in the study.

6. I agree to take part in the above study.

7. I agree to a researcher contacting me after the end of the IMPACT study about possible future research and follow up.

If any answers to the above are 'no' or if you don't want to take part, don't sign your name!

→ If you do want to take part, please sign your name below:

Sign your name…………………………………………………….Date…………………

→ The researcher who explained this project to you needs to sign too

Print name …………………………………………………….

Signed…...…………………………………………………Date………………..
Thank you for your help.

11th May 2011 /Version 5

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Appendix 15. IMPACT parent consent form

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

IMPACT ID:………

Barnet, Enfield and Haringey **NHS**
Mental Health NHS Trust

Parent/Guardian Consent Form

Please initial box

1. I confirm that I have read and I understand the information sheet dated 11th May 2011 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that our participation is voluntary and that we are free to withdraw at any time without giving any reason, without our medical care or legal rights being affected.

3. I understand that relevant sections of medical notes and data collected during the study from both me and my child may be looked at by individuals from the IMPACT research team, from regulatory authorities or from the NHS Trust, where it is relevant to our taking part in this research. I give permission for these individuals to have access to my records.

4. I agree to my child's therapy and research sessions being recorded for quality control, and that other researchers working in mental health research can have access to recordings made as part of the study.

5. I agree to my child's GP being informed of their participation in the study

6. I agree to both me and my child taking part in the above study.

7. I agree to a researcher contacting me after the end of the IMPACT study about possible future research and follow up about my child.

……………………………………………….. …………………………..
Name of Patient's parent or carer   Date   Signature

……………………………………………… ………………… ……….
Name of Person taking consent   Date   Signature

11th May 2011 /Version 6

Appendix 16. IMPACT-ME information sheet: Adolescent version (11-15 year olds)

Study Information for Young People (11-15)

Overcoming depression in adolescence: the experience of young people and their families

We're inviting you to take part in IMPACT-My Experience (IMPACT-ME for short), a separate study that is closely linked to the IMPACT study that you have already kindly agreed to take part in. Before you decide whether to join in, it's important you know why the research is being done and what it involves. Please read this leaflet carefully and, if you want to, discuss it with your family or doctor.

What is IMPACT-ME?
We would like to investigate the young people's experiences of depression, as well as their views of the treatment they received as part of the IMPACT study and how they understand what has (or has not) being helpful. In other words, it is a study where we want to hear about your experiences, in your own words. The viewpoint of young people and their families is extremely valuable because it can help us understand better the experiences of young people with depression. Moreover, this study can help us find out what really helps young people getting better as well as what is not helpful.

This way we will be able to improve the services that are delivered to young people with depression. In what follows we will tell you more about the study and what it may involve.

Who is involved?
45 young people aged 11-17 (who are already part of the IMPACT Study) and their families will be asked to join and like you they will have recently ended their therapy sessions.

Do I have to take part?
No it is up to you! If you do decide to join the study we'll ask you and your parent/carer to sign a form saying you understand what's involved and agree to take part.

During the IMPACT-ME we will tell you any important new information or

changes to the study which may affect whether you'd like to take part. If you decide you don't want to do it anymore, ***you can stop at any time without giving us a reason*** and your treatment will be the same as what you would have received if you had never taken part. Any future health care you receive will not be affected if you decide to leave the study.

I'd like to take part - what happens now?

If you agree to take part in IMPACT-ME, a research worker will meet separately with you and your family *twice* - once when your therapy ends, and once more a year later. The research worker will contact you to arrange an appointment at a time that's good for you and your family. This can be done either in your home or at an agreed location outside home, whichever you prefer. When you meet with the researcher, you will discuss what will happen and you will have a chance to ask as many questions as you like.

During this first appointment, which may last up to one hour, the research worker will ask you some questions about your experiences of depression as well as your views of the treatment that you recently received i.e. what things were helpful and what things were less helpful.

You and your family will see the research worker 12 months after this first meeting to go through similar questions to find out whether your views have changed or remained the same.

In addition to this, we would like your permission to interview your therapist to find out about their experience of the therapy sessions with you.

Why will I see a research worker?

These appointments will help us understand better how you and your family make sense of the process of depression as well as the meaning of receiving therapeutic help. The research interviews will be recorded using digital recorders, which will be stored without your name, on a secure, encrypted University computer. We would like your permission for other researchers to be able to use these recordings for their research. Again, no one would know your name, or who you are. They will be kept for 10 years after the study has ended and will then be destroyed. As a thank you for seeing the Research Worker, we will pay you £10 each time you meet. We'll also refund any money you spend travelling to your research appointment, if you don't want them to happen at your home.

Are there any disadvantages to taking part in the study?

There are no known disadvantages to taking part in this study. Sometimes the questions that the research worker will be asking you can be a bit upsetting because they relate to any difficulties that you had or may be having now. However, this would probably be no more difficult than when you discussed the same things with the IMPACT researcher. Many young people who have taken part in studies like this one have said that they value the chance to tell about their experiences in their own words.

What are the possible benefits of taking part?

We believe that learning more about your views and experiences will help us improving the support that will be provided to young people with depression in the future. So if you take part you will know that you are making a difference for others like you.

Confidentiality - who will know I am taking part in this study?
All information collected about you during the research will be kept *strictly confidential* in keeping with usual NHS guidelines. Staff from the Anna Freud Centre, London, where the study is based, may access your data from the study to check that the study is meeting their standards for good research. Information leaving the Centre for research purposes will not have your name on it or anything else which could identify you.

Who is organising and funding the study?
IMPACT-ME is organised by the Anna Freud Centre, London, which is a charity dedicated to 'caring for young minds'. The Anna Freud Centre is also involved in the IMPACT Study, so the two studies are connected. This study is funded by the Monument Trust, which is also a charity organisation. Although the study will last for about 3 years, you will be involved for about one year.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridge Central Research Ethics Committee.

What will happen to the results of the study?
At the end of the Study we'll write to everyone involved with results news, which will later be published in scientific journals, but with *no personal information so you cannot be identified.*

I have some questions, who do I ask?
The research worker who gave you this form will answer your questions or concerns. For more information please contact:

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████████████████████████████

Should you want independent advice please contact the Patient Advice and Liaison Service (PALS) for your area. One way to do this is go to www.pals.nhs.uk and use the link to 'contact us' or 'find your nearest PALS office'.

Thank you very much for reading this information sheet about the study - we hope you decide to take part in this study.

25th July 2011, Version 1

Appendix 17. IMPACT-ME information sheet: Adolescent version (16-17 year olds)

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds
Anna Freud Centre

Study information for young people aged 16-17

Overcoming depression in adolescence: the experience of young people and their families

We're inviting you to take part in IMPACT-My Experience (IMPACT-ME for short), a separate study that is closely linked to the IMPACT study that you have already kindly agreed to take part in. Before you decide whether to join in, it's important you know why the research is being done and what it involves. Please read this leaflet carefully and, if you want to, discuss it with your family or doctor.

What is the IMPACT-ME?
This study will investigate the young people's experiences of depression as well as their views of the treatment they received as part of the IMPACT study and how they understand what has (or has not) been helpful. In other words, it is a study where we want to hear about your experiences, in your own words.

While the results of the IMPACT study will help identify the most effective therapeutic treatment to help young people with depression, the information learnt from IMPACT-ME will improve our understanding of how young people and their families make sense of depression and the process of overcoming depression, by also exploring the young person's experiences of accessing different types of treatment. The viewpoint of young people and their families is extremely valuable to us because it can help us recognise the factors that really promote recovery from depression. Also, this study will be crucial in understanding why some young people may not feel that therapy has been helpful or why some young people drop out of treatment.

This way we will be able to improve the services that are delivered to young people with depression. In what follows we will tell you more about the study and what it may involve.

Who is involved?
45 young people aged 11-17 (who are already part of the IMPACT Study) and their families will be asked to join the study and like you they will have recently ended their therapy sessions.

Do I have to take part?
No, it is for you to decide! If you do want to join this part of the study, we'll ask you to sign a form saying that you agree to take part and understand what the research involves. You'll get a copy of that along with this information sheet to keep. During IMPACT-ME you will be told of any important new information or changes to the study which may affect whether you'd like to be involved. If you decide you don't want to do it anymore, *you can stop at any time without giving us a reason*. Any future health care you receive will not be affected by your decision to leave the study.

I'd like to take part- what happens now?
If you agree to take part in the study, a research worker will meet separately with you and your family *twice* - once when your therapy ends, and once more a year later. The research worker will contact you to arrange an appointment at a time convenient for you and your family. This can be done either in your home or at an agreed location outside home, whichever you prefer. When you meet with the researcher, you will discuss what will happen and you will have a chance to ask any questions.

During this first appointment, which may last up to one hour, you will have an interview with the research worker which will include some questions about your experiences of depression as well as your views of the treatment that you recently received; i.e. what things were helpful and what things were less helpful.

You will next see the research worker 12 months after this first meeting to go through similar interview questions to find out whether your views have changed or remained the same.

In addition to this, we would like your permission to interview your therapist to find out about their experience of the therapy sessions with you.

Why will I see a research worker?
These appointments are important because they can improve our understanding of how you and your family make sense of experiencing depression as well as the meaning of receiving therapeutic help. The research interviews will be recorded using digital recorders, which will be stored without your name, on a secure, encrypted University computer. We would like your permission for other researchers to be able to use these recordings for their research. Again, no one would know your name, or who you are. They will be kept for 10 years after the study has ended and will then be destroyed. As a thank you for seeing the Research Worker, we will pay you £10 each time you meet. We'll also refund any money you spend travelling to your research appointment

Are there any disadvantages to taking part in the study?
There are no known disadvantages to taking part in this study. Sometimes the interview used in this study can be a bit upsetting because it includes questions about any difficulties that you had or may be having now. However, this would probably be no more difficult than when you discussed the same things with the IMPACT researcher. Many young people who have taken part in studies like this one have said that they value the chance to tell about their experiences in their own words

What are the possible benefits of taking part?
The information we will obtain from the study can lead to important improvements in the way therapies are provided and services delivered. So if you take part you will know that you are making a difference for others like you.

Confidentiality - who will know I am taking part in this study?
All information collected about you during the research will be kept *strictly confidential* in keeping with usual NHS guidelines. Staff from the Anna Freud Centre, London, where the study is based, may access your data from the study to check the study is meeting their standards for good research. Information leaving the Centre for research purposes will not have your name on it or anything else which could identify you.

Who is organising and funding the study?
IMPACT-ME is organised by the Anna Freud Centre, London, which is a charity dedicated to 'caring for young minds'. The Anna Freud Centre is also involved in the IMPACT Study, so the two studies are connected. This study is funded by the Monument Trust, which is also a charity organisation. Although the study will last for about 3 years, you will be involved for about one year.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridge Central Research Ethics Committee.

What will happen to the results of the study?
At the end of the study, we'll write to everyone involved with results news, which will later be published in scientific journals, but with *no personal information so you cannot be identified.*

I have some questions about the study, who do I ask?
The research worker who gave you this form will answer your questions or concerns. For more information please contact:

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███████████████████████████████████████

Should you want independent advice please contact the Patient Advice and Liaison Service (PALS) for your area. One way to do this is go to www.pals.nhs.uk and use the link to 'contact us' or 'find your nearest PALS office'.

Thank you very much for reading this information sheet - we hope you decide to take part in this study.

2th July 2011, Version 1

Appendix 18. IMPACT-ME information sheet: Parent version

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds
Anna Freud Centre

Study information for Parent and Carers

Overcoming depression in adolescence: the experience of young people and their families

We would like to invite you and your child to take part in IMPACT-My Experience (IMPACT-ME for short), a separate study that is closely linked to the IMPACT study that you have already kindly agreed to take part in. Firstly, it is important you understand why the research is being done and what it involves. Please read this information and if you like discuss it with your friends, family or GP.

What is the IMPACT-ME?

While the results of the IMPACT study will help identify the most effective therapeutic intervention to help young people with depression, the information learnt from IMPACT-ME will improve our understanding of how young people and their families make sense of depression and the process of overcoming depression.

As part of this study, we would also like to find out more about the young people and their families' experiences of accessing different types of treatment and how they understand what has (or has not) being helpful. In other words, in this part of the study, we want to hear about your experiences, in your own words.

The viewpoint of young people and their families is extremely valuable because it can help us identify the things that really help recovery from depression. Also, this study will be crucial in understanding why some young people and their families may not feel that therapy has been helpful, or why some young people drop out of treatment.

This will help us to improve the services that are delivered to young people. In what follows we will tell you more about the study and what it may involve.

Why has my child been invited?
45 young people aged 11-17 (who are already part of the IMPACT Study) and their families will be asked to join this extra part of the study and like your child they will have recently ended their therapy sessions.

Do we have to take part?

No, it is up to you and your child to decide! If you do want to join in we'll ask you to sign a consent form, a copy of which you can keep with this leaflet. During IMPACT-ME, you will be informed of any information or changes to the study which may affect your willingness to continue taking part. Both you and your child are free to withdraw at any point *without giving us a reason*. Any future care your child or family receive will not be affected by their decision to leave the study.

We'd like to take part- what happens now?

If you and your child agree to take part in IMPACT-ME, a research worker will meet with you *twice* - once when your child's therapy ends, and once more a year later. The research worker will contact you to arrange appointments at a time convenient for you and your child. This can be done either in your home or at an agreed location outside home, whichever you prefer. When you meet with the research worker, you will discuss what will happen and you will have a chance to ask any questions.

During this first appointment, which may last up to one hour, you and your child will have separate interviews with the research worker. (These can take place at different times if it is more convenient for you). Your interview will include some questions about your experience of the difficulties that brought your child to Child and Adolescent Mental Health Service and what factors you think helped or hindered their recovery.

Your child will also have an interview with the research worker, lasting about 30-60 minutes where they'll discuss his or her experiences of depression, as well as their views of the treatment that they recently received; i.e. what things were helpful and what things were less helpful.

You and your child will next see the research worker 12 months after this first meeting to go through similar interview questions to find out whether your views and perceptions have changed or remained the same.

In addition to this, we would like your permission to interview the therapist/s who worked with your family to find out about their thoughts and experience of the therapy.

Why will we see a research worker?

These appointments are important because they can improve our understanding of how you and your child make sense of the experiences you have had as well as the meaning of receiving therapeutic help. The interviews will be recorded using digital recorders, the same as used in the main IMPACT Study. No one would know your child's name, or who you are - the recordings will have an ID number only.

These recordings will be stored, without your name, on a secure, encrypted University Computer for 10 years after the study has ended and will then be destroyed. All information we collect is stored using identification number, not names, and is ***strictly confidential***-only the research team of principal investigators, research workers and statisticians will have access to the information you provide.

Are there any disadvantages to taking part in the study?

There are no known disadvantages to taking part in this study. Some people can find it upsetting talking about their thoughts and feelings, but this would probably be no more difficult than when you or your child discussed the same things with the IMPACT Researcher the first time. Many young people and parents who have taken part in studies like this one have said that they value the chance to tell about their experiences in their own words.

What are the possible benefits of taking part?
This part of the study gives us the added value of including the family's perspective on the young person's difficulties and their views of the help they received. The information we will obtain from the study can lead to important improvements in the way therapies are provided and services delivered.

Confidentiality - who will know we are taking part in this study?
All information collected about you and your child during the research will be kept *strictly confidential* in keeping with usual NHS guidelines. Staff from the Anna Freud Centre, London, where this part of the study is based, may access your data from the study to check that we are meeting their standards for good research.

Who is organising and funding the study?
IMPACT-ME is organised by the Anna Freud Centre, London, which is a charity dedicated to 'caring for young minds'. This study is funded by the Monument Trust, which is also a charity organisation. Although the study will last for about 3 years, you will be involved for about one year.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridge Central Research Ethics Committee.

What will happen to the results of the study?
At the end of the study we'll write to everyone involved with results news, which will later be published in scientific journals, but with *no personal information so you cannot be identified.*

I have some questions about the study, who do I ask?
The research worker who gave you this form will answer your questions or concerns. For more information please contact:

Should you want independent advice please contact the Patient Advice and Liaison Service (PALS) for your area. One way to do this is go to www.pals.nhs.uk and use the link to 'contact us' or 'find your nearest PALS office'.

Thank you very much for reading this information sheet - we hope you decide to take part in this study.

Appendix 19. IMPACT-ME information sheet: Therapist version

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds
Anna Freud Centre

Study information for Therapists

Overcoming depression in adolescence: the experience of young people and their families

We would like to invite you to take part in IMPACT-My Experience (IMPACT-ME, for short), a separate study that is closely linked to the IMPACT study. Firstly, please read this information sheet in order to understand why the research is being done and what it entails.

What is IMPACT-ME?
The main part of the IMPACT Study is aimed at investigating the specific efficacy of psychological treatments in treating depression in young people and in reducing the risk for relapse in the medium and long term. This part of the study aims to explore the process of overcoming severe depression as experienced by adolescents and their family, as well as by the clinicians delivering psychiatric and psychotherapeutic treatment. Including the perspective of the professionals providing services in the IMPACT study, alongside the perspectives of the families and young people receiving treatment, will help us to:

Identify the *factors and processes* that help or hinder the young person's journey out of depression, including broader *cultural* and *contextual* factors.

Develop a more *complex* and *reality-based* model of understanding depression in adolescence and the process of over-coming depression.

Build a better understanding of the relationship between the *views of young people and the professionals who work with them*.

By combining the *quantitative* data from the IMPACT trial, which provides standardised outcomes on the efficacy of psychological treatment, with the *qualitative* data from IMPACT-ME, which offers a more in-depth and human-focused exploration of the families' and professionals' experience of dealing with depression, we aim to ensure that the findings from the IMPACT study can be fully understood and

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translated into improvements in clinical services.

In what follows we will tell you more about the study and what it may involve.

Who will be invited to take part in this study?
45 young people aged 11-17 (who are already part of the IMPACT Study), their families and the professionals will be asked to join this extra part of the study soon after the end of the clinical treatment.

Do we have to take part?
No, it is up to you to decide. If you do want to join in we'll ask you to sign a consent form, a copy of which you can keep with this leaflet. Your involvement in this part of the study is voluntary and if you decide not to take part or to withdraw at any point, our decision will not affect in any way your participation as a clinician the main IMPACT study.

I would like to take part - what happens now?
If you agree to take part in IMPACT-ME, a research worker will meet with you *once* shortly after the end of therapy with your client. The research worker will contact you to arrange an appointment at a time convenient for you. When you meet with the research worker, we will discuss what will happen and you will have a chance to ask any questions.

During this appointment, which may last up to *30-45 minutes*, you will have an interview with the research worker. Your interview will include some questions about your views of the difficulties that brought your client to CAMHS and what factors you think helped or hindered their recovery. Some questions will focus on your thoughts and experience of delivering psychological treatment to the young person (and their family).

In some cases, the research worker can arrange to carry out the interview over the phone, at an agreed time convenient for you.

Why will I see a research worker?
Including the professionals' perspectives will provide invaluable insight into your experience of treating severely depressed young people and the way that you make sense of the change process, e.g. what promotes or prevents recovery. The professionals' views will add an important dimension to the creation of a broad and complex model of understanding in supporting young people with severe depression and provide them with the best support available to promote their recovery.

The interviews will be recorded using digital recorders, the same as those used in the main IMPACT Study. No one would know your name, or who you are - the recordings will have an ID number only.

These recordings will be stored, without your name, on a secure, encrypted University Computer for 10 years after the study has ended and will then be destroyed.

Are there any disadvantages to taking part in the study?
There are no known disadvantages to taking part in this study.

What are the possible benefits of taking part?

This part of the study gives us the added value of including the families' and the professionals' perspective on the young person's difficulties and their views of the help they received. The information we will obtain from the study can lead to important improvements in the way therapies are provided and services delivered.

Confidentiality - who will know we are taking part in this study?
All information we collect is stored using identification number, not names, and will be kept *strictly confidential* in keeping with usual NHS guidelines; only the research team of principal investigators, research workers and statisticians will have access to the information you provide.

Who is organising and funding the study?
IMPACT-ME is organised by the Anna Freud Centre, London, which is a charity dedicated to 'caring for young minds'. This study is funded by the Monument Trust, which is also a charity organisation. Although the study will last for about 3 years, your involvement will only entail one short meeting with the research worker.

Local Ethical Committee Approval
This study has attained full ethical approval from Cambridge Central Research Ethics Committee.

What will happen to the results of the study?
At the end of the study we'll write to everyone involved with results news, which will later be published in scientific journals, but with *no personal information so you cannot be identified.*

I have some questions about the study, who do I ask?
The research worker who gave you this form will answer your questions or concerns. For more information please contact:

████████████████████████████████████
███████████████████████████████

Thank you very much for reading this information sheet - we hope you decide to take part in this study.

16th September 2011, Version 1

Appendix 20. IMPACT-ME adolescent assent form (11-15 year olds)

IMPACT
Improving **M**ood with
Psychoanalytic **A**nd **C**ognitive **T**herapies

Caring for young minds
Anna Freud
Centre

IMPACT ID:.........

Experience of therapy sub-study

PARTICIPANT ASSENT FORM

This form should be completed either by the **young person** who will take part in IMPACT, or by their parent/guardian on their behalf.

Please circle the below statements which you agree with:

Have you read (or had read to you) information about the study?	YES/NO
Has somebody explained study to you?	YES/NO
Do you understand what the study is about?	YES/NO
Have you asked all the questions you want?	YES/NO
Have you had your questions answered in an understandable way?	YES/NO
Do you understand it's ok to stop taking part at any time?	YES/NO
Do you agree to take part?	YES/NO
Do you agree to a researcher contacting you after the end of the IMPACT study about possible future research and follow up?	YES/NO

If any answers to the above are 'no' or if you don't want to take part, don't sign your name!

☐ If you do want to take part, you can write your name below:

Your name .... Date ....

☐ The researcher who explained this project to you needs to sign too

Print name .... Signed ....

Date ....

Thank you for your help!

25th July 2011 /Version 1

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Appendix 21. IMPACT-ME adolescent consent form (16-17 year olds)

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds
Anna Freud Centre

IMPACT ID:…………..

Experience of therapy sub-study

PARTICIPANT CONSENT FORM
Young person

1. I confirm that I have read and understand the information sheet Version 1, dated 25th July 2011 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I'm free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.

3. I understand that relevant sections of medical notes and data collected during the study from myself may be looked at by individuals from the IMPACT research team, from regulatory authorities or from the NHS Trust, where it is relevant to you taking part in this research. I give permission for these individuals to have access to my records.

4. I agree to my research sessions being recorded for quality control and that other researchers working in mental health research can have access to recordings made as part of the study

5. I agree to take part in the above study.

6. I agree to a researcher contacting me after the end of the IMPACT study about possible future research and follow up.

If any answers to the above are 'no' or if you don't want to take part, don't sign your name!

☐ If you do want to take part, please sign your name below:

Sign your name .... Date ....

☐ The researcher who explained this project to you needs to sign too

Print name .... Signed ....

Date ....

Thank you for your help.

25th July 2011 /Version 1

Appendix 22. IMPACT-ME parent consent form

IMPACT
Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds
Anna Freud Centre

IMPACT ID:.........

IMPACT-My Experience sub-study

Parent/Guardian Consent Form

Please initial box

1. I confirm that I have read and understand the information sheet Version 1, dated 25th July 2011 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that our participation is voluntary and that we are free to withdraw at any time without giving any reason, without our medical care or legal rights being affected.

3. I understand that relevant sections of medical notes and data collected during the study from both me and my child may be looked at by individuals from the IMPACT research team, from regulatory authorities or from the NHS Trust, where it is relevant to our taking part in this research. I give permission for these individuals to have access to my records.

4. I agree to my child's research interviews being recorded for quality control and that other researchers working in mental health research can have access to recordings made as part of the study

5. I agree to both me and my child taking part in the above study.

6. I agree to a researcher contacting me after the end of the IMPACT study about possible future research and follow up about my child.

....

Name of Patient's parent or carer   Date   Signature

....

Name of Person taking consent   Date   Signature

When the form is completed, 1 is for the participant; 1 for researcher site file; 1 (original) to be kept in medical notes.

15th June 2011 /Version 1

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Appendix 23. IMPACT-ME therapist consent form

IMPACT

Improving Mood with
Psychoanalytic And Cognitive Therapies

Caring for young minds

Anna Freud Centre

Study ID:.........

Experience of therapy sub-study

Therapist Consent Form

Please initial box

1. I confirm that I have read and understand the information sheet Version 1, dated 16ᵗʰ July 2011 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that our participation is voluntary and that we are free to withdraw at any time without giving any reason.

3. I agree to my research interviews being recorded for later analyses and that other researchers working in mental health research can have access to recordings made as part of the study

4. I agree to take part in the above study.

....

Name of Therapist   Date   Signature

....

Name of Person taking consent   Date   Signature

When the form is completed, 1 is for the participant; 1 for researcher site file

16ᵗʰ September /Version 1

Appendix 24. Abstract for published version of Study 1

Predicting dropout in adolescents receiving therapy for depression

Objective: Therapy dropout is a common occurrence, especially in adolescence. This study investigated whether dropout could be predicted from a range of child, family, and treatment factors in a sample of adolescents receiving therapy for depression. **Method**: This study draws on data from 406 participants of the IMPACT study, a randomized controlled trial, investigating three types of therapy in the treatment of adolescent depression. Logistic regression was used to estimate the effects of predictors on the odds of dropout. **Results**: Few pre-treatment predictors of dropout were found, with the only significant predictors being older age, antisocial behaviour, and lower scores of verbal intelligence. Missed sessions and poorer therapeutic alliance early in treatment also predicted dropout. Most child and family factors investigated were not significantly associated with dropout. **Conclusions**: There may be little about depressed adolescents' presentation prior to therapy starting that indicates their risk of dropout. However, within-treatment factors indicated that warning signs of dropout may be identifiable during the initial phase of therapy. Identifying and targeting early treatment indicators of dropout may provide possibilities for improving engagement.

Clinical and methodological significance of this article: In the literature, a great deal of attention has been paid to child and family factors that predict therapy dropout, yet in this study, few pre-treatment characteristics were predictive of dropout. However, findings revealed possible warning signs of dropout in the early part of treatment, as poor therapeutic alliance and missed sessions were both found to be predictive of dropout. These findings call for therapists to be aware of such warning signs and clinical guidelines for managing cases at risk of dropout are warranted.

Citation:

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Appendix 25. Correlation matrix for the independent variables used in Study 1

	1	2	3	4	5	6	7	8	9	10	11	12
1												
2	0.60***											
3	0.48***	0.51***										
4	0.18***	0.17***	0.24***									
5	0.26***	0.11*	0.09	0.21***								
6	0.11*	0.13**	0.04	0.46***	0.20***							
7	0.48***	0.27***	0.29***	0.18***	0.20***	0.31***						
8	-0.05	-0.03	0.13*	-0.05	-0.06	0.01	-0.08					
9	0.06	0.10	0.05	0.17*	0.05	0.14*	0.13	-0.07				
10	0.10	0.12	0.14*	0.27***	0.16*	0.49***	0.22***	-0.01	0.33***			
11	-0.09	-0.03	-0.01	-0.19**	-0.21**	-0.28***	-0.23***	0.07	-0.07	-0.31***		
12	0.13	0.18*	0.12	0.07	-0.01	0.02	0.15*	-0.04	0.03	0.14	-0.14	
13	-0.05	0.04	0.10	-0.11	-0.04	-0.04	-0.16*	0.04	-0.05	-0.07	0.30***	-0.06

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. 1. MFQ (Mood and Feelings Questionnaire); 2. RCMAS (Revised Children's Manifest Anxiety Scale); 3. LOI (Leyton Obsessional Inventory); 4. ABQ (Antisocial Behaviours Questionnaire); 5. HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); 6. Risk Taking (Risk-Taking and Self-Harm Inventory for Adolescents; RTSHIA); 7. Self-Harm (RTSHIA); 8. GSI (Parents' Global Symptoms Index on the Symptoms Checklist-90); 9. Inconsistent discipline (Alabama Parenting Questionnaire; APQ); 10. Poor supervision (APQ); 11. Positive parenting (APQ); 12. WASI (Wechsler Abbreviated Scale of Intelligence); 13. WAI (Working Alliance Inventory – self report version).

Appendix 26. Variance inflation factor (VIF) for independent variables used in Study 1

Independent Variable	VIF
Mood and Feelings Questionnaire (MFQ)	2.84
Revised Children's Manifest Anxiety Scale (RCMAS)	2.74
Leyton Obsessional Inventory (LOI)	2.20
Antisocial Behaviours Questionnaire (ABQ)	1.71
Health of the Nation Outcomes Scales Child and Adolescent (HoNOSCA)	1.76
Risk Taking and Self Harm Inventory (RTSHIA) – risk taking	1.71
RTSHIA – self harm	1.81
Wechsler Abbreviated Scale of Intelligence (WASI)	1.24
Global Symptom Index (Symptoms Checklist-90; parent report)	1.29
Alabama Parenting Questionnaire (APQ) – poor supervision	1.41
APQ – positive parenting	1.62
APQ – inconsistent supervision	1.24
Working Alliance Inventory (WAI)	1.31

Appendix 27. Missing data for each measure for sample included in analyses predicting dropout (*N* = 406) in Study 1

	Data completeness *N* (%)	Data missing *N* (%)
Demographics		
Age	453 (100%)	0 (0%)
Sex	453 (100%)	0 (0%)
Ethnicity	391 (96%)	15 (4%)
Adolescent completed measures at baseline assessment		
MFQ	406 (100%)	0 (0%)
RCMAS	405 (100%)	1 (<1%)
LOI	402 (99%)	4 (1%)
ABQ	402 (99%)	4 (1%)
K-SADS	406 (100%)	0 (0%)
RTSHIA	394 (97%)	12 (3%)
HONOSCA	380 (94%)	26 (6%)
APQ	232 (57%)	174 (43%)
Parent completed measures at baseline assessment		
SCL-90	255 (63%)	151 (37%)
Adolescent completed measures at 6-week assessment		
WAI	216 (53%)	190 (47%)
Adolescent completed measures at 52-week assessment		
WASI	185 (46%)	221 (54%)

MFQ (Mood and Feelings Questionnaire); RCMAS (Revised Children's Manifest Anxiety Scale); LOI (Leyton Obsessional Inventory); ABQ (Antisocial Behaviours Questionnaire); K-SADS (Kiddie Schedule for Affective Disorders and Schizophrenia); RTSHIA (Risk Taking and Self Harm Inventory); HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); APQ (Alabama Parenting Questionnaire); SCL-90 (Symptoms Checklist-90); WAI (Working Alliance Inventory); WASI (Wechsler Abbreviated Scale of Intelligence).

Appendix 28. Akaike's Information Criterion (AIC) for each logistic regression model and dataset in Study 1

Dataset	Model					Best fitting
	1	**2**	**3**	**4**	**5**	model
1	537.75	513.01	511.25	503.54	490.92	5
2	537.55	501.47	494.29	489.79	480.16	5
3	537.61	513.80	504.73	488.15	483.70	5
4	537.59	518.40	519.00	491.27	479.65	5
5	537.60	534.39	530.83	516.56	506.37	5
6	537.76	533.49	526.66	506.33	499.40	5
7	537.25	503.00	500.43	477.19	461.96	5
8	537.64	513.92	512.42	491.62	472.98	5
9	537.04	522.12	513.16	507.88	501.23	5
10	537.25	515.22	515.51	503.21	489.31	5
11	537.29	538.70	541.20	515.20	493.37	5
12	537.54	536.36	522.79	510.09	499.10	5
13	537.55	539.17	537.67	527.84	511.76	5
14	537.64	532.95	536.77	525.74	507.05	5
15	536.94	526.48	523.33	520.20	507.84	5
16	537.57	533.42	538.79	526.84	502.45	5
17	537.14	513.51	506.57	479.60	467.38	5
18	537.40	501.25	500.90	481.95	467.96	5
19	537.34	532.93	536.82	530.63	509.84	5
20	537.49	521.81	519.21	505.60	491.84	5

Appendix 29. Model comparisons for sensitivity analyses, for multilevel models predicting outcomes for Study 2.

Measure	Model	Dropout definition					
		Therapy ended without therapist agreement and adolescent attended less than 50% of intended sessions			Therapy ended without therapist agreement and adolescent attended less than 75% of intended sessions		
		AIC	BIC	Likelihood ratio test	AIC	BIC	Likelihood ratio test
MFQ	1	14195.96	14243.80		14195.96	14243.80	
	2	14197.75	14257.55	$\chi^2 = 4.21$, p = 0.24	14199.45	14259.24	$\chi^2 = 2.52$, p = 0.47
	3	14199.67	14275.41	$\chi^2 = 6.08$, p = 0.19	14201.72	14277.46	$\chi^2 = 5.72$, p = 0.22
HoNOSCA	1	10188.44	10236.18		10188.34	10236.09	
	2	10194.17	10253.85	$\chi^2 = 0.27$, p = 0.97	10194.30	10253.98	$\chi^2 = 0.04$, p = 0.99
	3	10197.07	10272.67	$\chi^2 = 5.10$, p = 0.28	10197.68	10273.28	$\chi^2 = 4.62$, p = 0.33
LOI	1	9962.06	10009.90		9963.74	10011.58	
	2	9964.076	10023.87	$\chi^2 = 3.98$, p = 0.26	9966.88	10026.67	$\chi^2 = 2.86$, p = 0.41
	3	9968.294	10044.04	$\chi^2 = 3.78$, p = 0.44	9972.08	10047.82	$\chi^2 = 2.80$, p = 0.59
RCMAS	1	13281.15	13328.99		13280.93	13328.77	
	2	13285.85	13345.64	$\chi^2 = 1.31$ p = 0.73	13285.84	13345.63	$\chi^2 = 1.10$, p = 0.77
	3	13284.82	13360.56	$\chi^2 = 9.02$ p = 0.06	13287.76	13363.51	$\chi^2 = 6.07$, p = 0.19

Mood and Feelings Questionnaire (MFQ); HoNOSCA (Health of the Nation Outcomes Scales Child and Adolescent); LOI (Leyton Obsessional Inventory); RCMAS (Revised Children's Manifest Anxiety Scale); AIC (Akaike's Information Criterion); BIC (Bayesian Information Criterion). Models predicted outcomes on each measure. Model 1 tested Time, Treatment Arms and Therapy Ending; Model 2 tested two-way interaction terms (Time X Treatment Arms and Time X Therapy Ending); Model 3 tested three-way interaction terms (Time X Treatment Arms X Therapy Ending).

Appendix 30. Results from sensitivity analyses in Study 2, showing odds of dropouts meeting diagnostic criteria for depression compared with completers in each treatment arm at 36, 52 and 86 weeks, when dropout was redefined according to when treatment ended

| | 36-weeks | | | 52-weeks | | | 86-weeks | | |
| | Dropout definition | | | Dropout definition | | | Dropout definition | | |
	Therapist judgement	<50%	<75%	Therapist judgement	<50%	<75%	Therapist judgement	<50%	<75%
BPI X dropouts‡	0.29*	0.29*	0.28*	ns	ns	ns	ns	ns	ns
CBT X dropouts‡	ns	ns	ns	6.09***	4.00**	4.37**	ns	3.18*	ns
STPP X dropouts‡	2.67*	2.45*	ns	ns	ns	ns	ns	ns	ns

Odds ratios derived from mixed effects logistic regression models predicting depression diagnosis at 36, 52 and 86 weeks, showing interaction terms for Treatment arm X Dropout for each treatment arm. Therapist judgement is the dropout definition used in the main analyses reported in Study 2. For the sensitivity analyses, dropouts were those classified as having dropped out by therapist judgement and who attended less than 50% and 75% of the intended sessions, to test whether findings differed as a function of when dropout occurred. BPI (Brief Psychosocial Intervention); CBT (Cognitive Behavioural Therapy); STPP (Short Term Psychoanalytic Psychotherapy).

‡ Treatment arm X Dropout interaction terms are comparing dropouts with completers from that treatment arm (i.e. BPI Dropouts vs. BPI Completers; CBT Dropouts vs. CBT Completers; STPP Dropouts vs. STPP Completers).

ns = not significant; *p<0.05; **p<0.01; ***p<0.001.

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Appendix 31. Rupture Resolution Rating System (3RS) Coding Guide

3RS Coding Guide

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Appendix 32. Rupture Resolution Rating System (3RS) score sheet

[Redacted]

Appendix 33. Average scores on the Working Alliance Inventory, in each treatment arm, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions, for Study 4

Time	Completers			'Dissatisfied' dropouts			'Got-what-they-needed' dropouts		
	BPI	CBT	STPP	BPI	CBT	STPP	BPI	CBT	STPP
	(*N* = 3)	(*N* = 2)	(*N* = 9)	(*N* = 3)	(*N* = 2)	(*N* = 9)	(*N* = 3)	(*N* = 3)	(*N* = 1)
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Early	61.00 (7.00)	54.00 (1.41)	60.11 (11.58)	40.67 (6.11)	50.00 (15.56)	52.44 (11.50)	58.67 (3.51)	63.67 (3.06)	47.00 (N/A)
Late	64.00 (3.61)	58.00 (0.00)	59.56 (8.28)	39.33 (6.51)	51.50 (24.75)	47.22 (9.87)	59.67 (3.06)	60.00 (0.00)	44.00 (N/A)

BPI = Brief Psychosocial Intervention; CBT = Cognitive Behavioural Therapy; STPP = Short Term Psychoanalytic Psychotherapy. Scores derived from the observer version of the Working Alliance Inventory.

Appendix 34. Average ratings for ruptures, therapist contribution to ruptures, and rupture-repair, in each treatment arm, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions, for Study 4

Rupture	Time	Completers			'Dissatisfied' dropouts			'Got-what-they-needed' dropouts		
		BPI (N=3) M (SD)	CBT (N=2) M (SD)	STPP (N=9) M (SD)	BPI (N=3) M (SD)	CBT (N=2) M (SD)	STPP (N=9) M (SD)	BPI (N=3) M (SD)	CBT (N=3) M (SD)	STPP (N=1) M (SD)
Freq										
WR	Early	6.33 (10.97)	5.00 (1.41)	6.78 (6.24)	8.00 (1.73)	7.50 (4.95)	8.44 (4.88)	4.00 (1.00)	3.00 (1.73)	2.00 (N/A)
	Late	4.00 (3.61)	8.00 (2.83)	8.00 (6.36)	9.33 (4.62)	4.50 (6.36)	12.11 (3.76)	4.00 (4.58)	5.67 (5.51)	10.00 (N/A)
CR	Early	3.00 (3.46)	1.50 (2.12)	2.11 (4.17)	1.00 (1.73)	0.00 (0.00)	2.78 (4.76)	0.33 (0.58)	0.67 (0.58)	4.00 (N/A)
	Late	0.67 (1.16)	1.00 (1.41)	1.44 (2.30)	2.33 (2.08)	1.00 (1.41)	3.78 (3.15)	0.33 (0.58)	0.67 (0.58)	5.00 (N/A)
Sig										
WR	Early	1.67 (1.16)	3.00 (0.00)	2.22 (1.48)	3.67 (1.16)	3.00 (1.41)	2.89 (1.27)	2.00 (0.00)	1.67 (0.58)	2.00 (N/A)
	Late	2.33 (0.58)	2.50 (0.71)	2.56 (1.24)	4.00 (1.00)	3.00 (2.83)	3.44 (0.88)	2.00 (1.00)	2.33 (0.58)	4.00 (N/A)
CR	Early	1.67 (1.16)	1.50 (0.71)	1.89 (1.54)	1.33 (0.58)	1.00 (0.00)	2.33 (1.66)	1.33 (0.58)	1.33 (0.58)	4.00 (N/A)
	Late	1.33 (0.58)	1.50 (0.71)	1.67 (0.71)	2.00 (1.00)	2.00 (1.41)	3.11 (1.45)	1.33 (0.58)	1.67 (0.58)	3.00 (N/A)
TC	Early	1.00 (0.00)	1.00 (0.00)	1.67 (1.12)	1.67 (1.16)	2.50 (2.12)	2.11 (1.05)	1.33 (0.58)	1.00 (0.00)	2.00 (N/A)
	Late	1.00 (0.00)	1.00 (0.00)	1.44 (0.88)	1.33 (0.58)	3.00 (2.83)	2.22 (1.20)	1.67 (1.16)	1.00 (0.00)	3.00 (N/A)
Res	Early	3.00 (0.00)	3.00 (0.00)	2.56 (0.73)	1.67 (0.58)	2.50 (0.71)	2.11 (0.93)	3.00 (0.00)	3.00 (0.00)	2.00 (N/A)
	Late	3.00 (0.00)	3.00 (0.00)	3.00 (0.50)	1.67 (0.58)	2.00 (1.41)	2.22 (1.09)	3.00 (0.00)	3.00 (0.00)	2.00 (N/A)

BPI = Brief Psychosocial Intervention; CBT = Cognitive Behavioural Therapy; STPP = Short Term Psychoanalytic Psychotherapy; Freq = Frequency; Sig = Significance; WR = Withdrawal ruptures; CR = Confrontation ruptures; TC = Therapist contribution; Res = Resolution of ruptures.

Appendix 35. Average ratings for resolution strategies, in each treatment arm, for completers, 'dissatisfied' dropouts and 'got-what-they-needed' dropouts, in early and late sessions, for Study 4

Rupture marker	Time	Completers			'Dissatisfied' dropouts			'Got-what-they-needed' dropouts		
		BPI (N = 3) M (SD)	CBT (N = 2) M (SD)	STPP (N = 9) M (SD)	BPI (N = 3) M (SD)	CBT (N = 2) M (SD)	STPP (N = 9) M (SD)	BPI (N = 3) M (SD)	CBT (N = 3) M (SD)	STPP (N = 1) M (SD)
Clarify	Early	1.00 (1.00)	0.00 (0.00)	0.22 (0.44)	0.00 (0.00)	0.00 (0.00)	0.22 (0.67)	0.00 (0.00)	0.67 (0.58)	1.00 (N/A)
	Late	0.00 (0.00)	0.00 (0.00)	0.11 (0.33)	0.00 (0.00)	0.00 (0.00)	0.33 (0.71)	0.33 (0.58)	0.00 (0.00)	0.00 (N/A)
Change	Early	0.00 (0.00)	0.50 (0.71)	0.33 (0.50)	2.33 (4.04)	0.00 (0.00)	0.11 (0.33)	0.67 (0.58)	0.00 (0.00)	1.00 (N/A)
	Late	0.00 (0.00)	1.00 (0.00)	0.11 (0.33)	2.33 (1.53)	1.00 (1.41)	0.44 (0.73)	0.33 (0.58)	0.33 (0.58)	2.00 (N/A)
Illustrate	Early	1.00 (1.00)	1.50 (0.71)	0.56 (1.13)	1.33 (1.16)	0.50 (0.71)	0.44 (0.53)	0.33 (0.58)	0.67 (1.16)	1.00 (N/A)
	Late	0.33 (0.58)	1.00 (1.41)	0.56 (0.73)	1.67 (1.53)	0.50 (0.71)	0.78 (0.83)	0.67 (1.16)	0.67 (0.58)	0.00 (N/A)
Invites	Early	1.33 (2.31)	1.50 (2.12)	0.44 (0.73)	0.67 (1.16)	0.00 (0.00)	0.44 (0.73)	0.00 (0.00)	0.00 (0.00)	2.00 (N/A)
	Late	0.67 (1.16)	3.00 (1.41)	1.11 (1.45)	0.67 (0.58)	1.00 (1.41)	2.67 (2.55)	0.33 (0.58)	0.67 (0.58)	2.00 (N/A)
Acknow	Early	0.00 (0.00)	0.00 (0.00)	0.11 (0.33)	1.67 (2.89)	0.00 (0.00)	0.67 (1.32)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
	Late	0.00 (0.00)	0.00 (0.00)	0.33 (0.71)	0.33 (0.71)	0.00 (0.00)	0.33 (1.00)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
Disclose	Early	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	1.00 (1.73)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
	Late	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
Rel/ therapist	Early	0.00 (0.00)	0.00 (0.00)	0.11 (0.33)	0.33 (0.58)	0.00 (0.00)	0.11 (0.33)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
	Late	0.00 (0.00)	0.00 (0.00)	0.22 (0.67)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
Rel/ others	Early	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
	Late	0.00 (0.00)	0.00 (0.00)	0.11 (0.33)	0.00 (0.00)	0.00 (0.00)	0.33 (0.50)	0.00 (0.00)	0.00 (0.00)	0.00 (N/A)
Validate	Early	0.33 (0.58)	0.00 (0.00)	0.67 (1.66)	0.00 (0.00)	0.00 (0.00)	0.11 (0.33)	0.00 (0.00)	0.00 (0.00)	1.00 (N/A)
	Late	0.00 (0.00)	0.00 (0.00)	0.44 (0.73)	0.33 (0.58)	0.00 (0.00)	0.22 (0.44)	0.00 (0.00)	0.00 (0.00)	1.00 (N/A)
Redirect	Early	1.33 (1.53)	0.00 (0.00)	1.11 (1.76)	0.33 (0.58)	0.00 (0.00)	2.33 (2.12)	0.67 (0.58)	0.00 (0.00)	1.00 (N/A)
	Late	0.00 (0.00)	3.00 (2.83)	1.44 (1.33)	1.00 (1.00)	0.00 (0.00)	3.22 (2.11)	0.67 (1.16)	1.00 (1.00)	2.00 (N/A)

BPI = Brief Psychosocial Intervention; CBT = Cognitive Behavioural Therapy; STPP = Short Term Psychoanalytic Psychotherapy. Clarify = therapist clarifies a misunderstanding; Change = therapist changes tasks or goals; Illustrate = therapist illustrates tasks or provides rationale; Invites = therapist invites the client to discuss thoughts or feelings; Acknow = therapist acknowledges their contribution to rupture; Disclose = therapist discloses their own internal experience of the interaction; Rel/therapist = therapist links rupture to relationship between client and therapist; Rel/others = therapist links rupture to clients interpersonal pattern; Validate = therapist validates client's defensive posture; Redirect = therapist redirects or refocuses client.