Investigation of the relationship between therapist and client attachment styles and perceptions of therapeutic alliance in a sample of inpatients with psychosis

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Thesis abstract

The current study investigated the relationship between therapist and client attachment styles and perceptions of therapeutic alliance in a sample of inpatients with psychosis. A review of the literature found that attachment theory can provide understanding regarding the behaviour of clients with psychosis in therapeutic relationships, especially in inpatient settings. Working alliance can be measured as a representation of the therapeutic relationship and both client and therapist attachment styles contribute to the working alliance and can be measured in various ways. Research has suggested that for clients with psychosis diagnoses dissimilarity between client and therapist attachment styles indicated a better client rated working alliance. Given the low number of studies in this area and the relevance of attachment theory in working with clients with a psychosis diagnosis, this study aimed to investigate the relationship between therapist and client attachment styles and client perceptions of working alliance in therapy when clients had a diagnosis of psychosis. The present study hypothesised that clients' with psychoses and therapists who were dissimilar in terms of attachment styles would predict better client perceptions of working alliance.

The current study focused on clients with a diagnosis of psychosis because distress, trauma and interpersonal difficulties are prominent features of psychosis, which would influence individuals' attachment behaviours and outline a role for attachment theory in understanding difficulties and tailoring treatments for this client group. The current research decided to focus on clients with psychosis in an inpatient setting to extend previous research which has mainly included clients in a community setting. Attachment theory can play an important role in considering the inpatient environment and how it can influence attachment behaviours.

The present study was a cross sectional, within subjects design. Therapists and clients rated their attachment styles and working alliance. Most therapists rated their attachment style and working alliance with more

than one client, therefore client data was nested within specific therapists. Using the Relationship Questionnaire (RQ) and Working Alliance Inventory (WAI), 46 pairs of therapists and clients recruited from independent inpatient psychiatric hospitals were assessed. A regression analysis examined the relationship between client and therapist attachment styles and client rated working alliance. The nested structure of the data and therapist rated working alliance was controlled for in the analysis. The present study did not find a significant relationship between the difference between therapist and client attachment styles and client rated working alliance. The present study hypothesised that clients' with psychoses and therapists who were dissimilar in terms of attachment styles would predict better client perceptions of working alliance. Therefore, the current study did not confirm this hypothesis.

It is considered that perhaps clients had not had enough time to build up the therapeutic relationship with therapists to allow the difference in attachment styles to lead to a better working alliance, meaning that more time may be needed in the initial stage of therapy. Further research is recommended to tease apart the attachment style interaction, including considering other variables and measuring working alliance over time in longitudinal studies.

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Statement of contribution

The author has been responsible for the following:

- Identifying the research area
- Designing the study
- Applying for ethical approval
- Completing and writing a systematic literature review
- Recruiting participants for the study
- Completing the data collection with participants
- Scoring the questionnaires
- Entering the data into a database and completing the analysis
- Writing all parts of the study

Contributions from others and their role:

Dr Nima G. Moghaddam, BSc, DClinPsy, Clinical Psychologist, Research Tutor, University of Lincoln, Health Life and Social Sciences, 1st Floor Bridge House, Brayford Pool, Lincoln, LN6 7TS. Dr Moghaddam gave advice on the completion of data analysis and reviewed drafts.

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Systematic review

Effects of therapist and client attachment styles on therapeutic alliance in individual psychotherapy: A systematic review[*]

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Abstract

Purpose

Evidence has demonstrated that the relationship between therapist and client attachment styles and therapeutic alliance effect treatment outcomes. The purpose of this systematic literature review is to examine how therapist and client attachment styles and their interaction, impacts on the therapeutic alliance.

Methods

Four electronic databases were searched: PsycINFO, MEDLINE, EMBASE and CINAHL, along with manual searches of references of relevant studies. Studies were reviewed for content relevance and selected for data extraction if they met specified inclusion criteria. Studies were included if they focused on individual therapy, measured both therapist and client attachment styles and assessed therapeutic alliance. Studies were assessed based on general characteristics, key findings and methodological quality using a modified guide.

Results

This review included nine studies which indicated that client attachment styles predict a positive alliance, and insecure client attachment styles demonstrate a lower level of alliance. Therapist secure attachment styles also predict a positive alliance. However, when the interaction between client and therapist attachment styles was reviewed the findings were mixed. One explanation for this includes the results being complicated by studies using different methods to measure alliance and attachment.

Conclusions

The review recommends well controlled future studies, using the same measures, investigating interactions between client and therapist attachment styles and the impact on alliance and therapy outcomes. It would also be important to make use of attachment measures within therapy assessments and investigate whether the knowledge of clients' attachment styles would aid therapists to treat clients and improve therapy outcomes.

Introduction

The therapeutic alliance relates to the interpersonal relationship processes occurring between the therapist and client. Strength of therapeutic alliance has been consistently associated with positive outcomes (Horvath & Symonds, 1991). Attachment theory can provide an important base in which to examine the therapeutic alliance. Although there has been much research into the impact of attachment styles on therapeutic alliances, there has been no research systematically examining studies exploring the unique contribution of both therapist and client attachment styles to therapeutic alliance.

Working alliance

Conceptualisations of therapeutic alliance have mainly agreed that both the therapist and client collaborate to build a relationship allowing the client to achieve treatment goals (Tichenor & Hill, 1989). The strength of this collaborative relationship has been shown to determine successful therapeutic outcomes, independent of type of psychological treatment (Martin, Garske, & Davis, 2000). Poor therapeutic alliance has been shown to predict drop-out rates in therapy (Horvath, 2000). However, Elvins and Green (2008) reported that there are discrepancies in the way researchers conceptualise and measure therapeutic alliance.

Alliance concepts have included transference and counter-transference as key aspects of therapeutic process and therapy outcomes (Gelso & Carter, 1994). Bordin (1979) conceptualised therapeutic alliance as having three components: bond, task and goal. The bond component relates to the degree of emotional relationship between therapist and client, and the other two components are related to agreement between therapist and client on the tasks and goals of therapy. Bordin's (1979) theory suggests that building a therapeutic alliance is key for therapeutic change and therapist and client should attend to any ruptures which may affect the three components of bond, task and goal. The Working Alliance Inventory (WAI) has been developed to measure these aspects of goal, task and bond (Horvath & Greenberg, 1989). Elvins and Green (2008) reviewed measurements of therapeutic alliance and reported that the WAI was one of the most successful in addressing conceptual issues.

Measurements of alliance have considered both the therapist and client views and independent observation ratings. If therapists or clients rate therapeutic alliance and therapy outcomes this introduces bias into the ratings, as a positive view of the alliance may lead to a positive view of therapy outcomes. However, if independent observations are used they may miss important subjective attitudes that are involved within the relationship.

Research has considered different factors influencing therapeutic alliance in predicting therapeutic outcome and client change. Black, Hardy, Turpin, and Parry (2005) found that therapist orientation predicted ratings of alliance quality, with cognitive behavioural therapists showing the highest self-rated alliance score. Session depth and smoothness have been found to be related to client engagement in sessions (Tryon, 1990). Session reflection has been found to be an important aspect of therapeutic process (Diamond, Stovall-McClough, Clarkin, & Levy, 2003).

Therapeutic alliance is an important predictor of therapy outcome and change. In attempting to consider factors that influence therapeutic alliance, the current review investigates the relationship between the factor of attachment and the therapeutic relationship. For the purpose of this

review terms used to consider therapeutic alliance have aimed to be broad to access as many studies as possible and have included terms such as 'therapeutic processes', 'working alliance' and 'therapeutic relationship'.

Attachment

Attachment theory has been considered as an important framework to view individuals' ability to develop relationships. Attachment can be defined as an affectionate relationship formed with a specific person, which is consistent and emotionally important (Bowlby, 1969/1997, 1973/1998, 1980/1998). This is characterised by an individual attempting to maintain closeness to their attachment figure, especially in times of distress and experiencing anxiety if they are separated. Bowlby (1997, 1998) introduced the concept of the working model of the attachment figure and the self. These are internal cognitive-affective structures of attachment, first constructed in childhood from past experiences of an attachment figure. Working models provide a child with an internalised template of how they expect their caregiver to behave in future.

A securely attached child may expect the caregiver to act in a loving, reliable and responsive way allowing them to feel safe to explore their environment. An internal working model of an insecurely attached child would experience the caregiver as inconsistent in their responses and emotionally unavailable. In this case the child would develop other strategies to reduce distress, which could include becoming self-reliant (insecure avoidant/dismissing attachment style) denying attachment needs or becoming overly dependent (insecure anxious-ambivalent/preoccupied attachment style) in an attempt to gain a response from the attachment figure. These working models become a template for future close and social adult relationships (Bowlby, 1998). This was considered to be due to individuals attending, interpreting and behaving in a way that confirms current representations and expectations (Pietromonaco & Feldman Barrett, 2000).

Measurement of attachment style

There are two main methods of measuring attachment: narrative analysis and self-report measures. This is an important aspect to consider as these methods differ in how they view the content and structure of attachment styles. Narrative analysis relies on a coherent narrative of previous childhood memories to assess unconscious aspects of attachment. An example of a narrative measurement of attachment is the Adult Attachment Interview (AAI; Main, Kaplan, & Cassidy, 1985 as cited in Goodwin, 2003). The AAI assesses the manner in which an individual speaks about their past rather than the content. Therefore, this measure can be criticised as individuals may be classified as insecure due to an inability to articulate their past parental attachment experiences.

Self-report instruments measure attachment styles based on current close or romantic relationships. This is an important difference, as Bowlby (1997, 1998) acknowledged that attachment working models could be modified if an event occurred that challenged current representations suggesting that at times measuring past attachment styles may be less valid. Also, the bias introduced by viewing past relationships through a current relationships lens is unavoidable (Daniel, 2006).

Self-report measures have continued to develop and have progressed to considering attachment styles on continuous scale dimensions, rather than categorically. This was due to categorical measures being criticised for an inability to reflect individual variation in attachment. The main attachment dimensions considered are avoidance and anxiety, with higher scores indicating insecure attachment and lower scores indicating secure attachment. However, this has complicated research since studies use various measures designed to derive different combinations of dimensions. For example, individuals could have an overall high rating of secure attachment but also demonstrate tendencies to be more avoidant than anxious.

In summary, research suggests that attachment patterns can influence how therapeutic alliances are formed and developed within therapy. Although, attachment can be measured differently the underlying constructs appear at least, to overlap. Therefore, it is important to investigate the complex interactions between therapist and client attachment styles.

Client attachment and the therapeutic alliance

Attachment styles influence how individuals form interpersonal relationships and therefore, can be expected to influence the formation of the therapeutic relationship. There are similarities between the role of an attachment figure and the role of a therapist (Farber, Lippert, & Nevas, 1995). The therapist provides the client with a safe environment to be able to explore their difficulties and relationships in the context of meeting their therapeutic goals. However, client attachment style will mediate how they respond to the therapist and so impact on the quality and development of the therapeutic alliance.

Kivlighan, Patton, and Foote (1998) found that clients who were comfortable with intimacy and able to trust their therapist formed stronger working alliances predicting positive therapeutic change and outcomes in therapy. However, therapeutic change may occur for insecure clients through the incongruence of their past attachment relationships and the responsive, supportive relationship the therapist is able to provide; disconfirming their current working models. Research suggests that clients are more likely to have insecure attachments (Crowell, Fraley, & Shaver, 2008).

Therapist attachment and the therapeutic alliance

Attachment styles of therapists would be expected to impact on their ability to develop a therapeutic alliance with a client in the same way that parents' attachment styles would influence their ability to provide a safe and caring environment for their child (Daniel, 2006). Therefore, secure attachments would be important to provide a supportive and caring

environment for clients and indeed Lieper and Casares (2000) reported that 69.9% of Clinical Psychologists in Britain were classed as secure. However, as discussed above, due to measurements including continuous scale ratings, therapists classed as securely attached could have varied ratings of the insecure attachment scales of avoidance and anxiety, which may also impact on the therapy relationship.

Secure therapist attachment style was found to be positively correlated to therapist reported positive therapeutic alliance (Black et al., 2005). However, Ligiero and Gelso (2002) found no relationship between therapist attachment styles and therapeutic alliance. The reason for these different findings may be due to therapist attachment styles impacting on therapy less than client attachment styles. However, there could be an interaction effect of both therapist and client attachment styles which impacts on alliance.

If most therapists are globally securely attached and most clients are globally insecurely attached it is possible that there are similarities or differences within those attachments which produce more effective relationships for positive therapy outcome. It is possible that dissimilar attachment styles may aid therapists to disconfirm clients' current expectations of how attachment figures are likely to respond towards them, producing both higher ratings of working alliance and positive therapy outcomes (Tyrell, Dozier, Teague, & Fallot, 1999). The aim of this review is to consider the interaction between therapist and client attachment styles and the impact on therapeutic alliance.

In summary, therapeutic alliance predicts therapy outcomes and so is important for allowing optimal use of therapy for clients. There have been differences in definitions of the underlying concepts and measurement of alliance. Attachment is better defined than alliance, though differences still exist in the way it is measured by researchers. However, attachment appears to be an important factor influencing therapy alliance and therefore examining its complexities may shed light on ways to provide individually tailored interventions.

Methods

Literature search

Studies used in this review were extracted from PsycINFO, MEDLINE, EMBASE and CINAHL from 1978 to 2010. Reference sections of all identified articles were searched for further relevant articles. Various combinations of relevant search terms (keywords) were included (e.g., attachment, therapist/client attachment style, psychotherapeutic processes, working alliance and individual psychotherapy).

Selection

The inclusion criteria for the review were as follows: (1) observational and experimental treatment studies; (2) published in the English Language; (3) articles published between 1978-2010; (4) articles published in a journal; (5) studies focused on individual therapy.

The exclusion criteria for the review were as follows: (1) individuals under the age of 18 years; (2) any studies not measuring both therapist and client attachment styles; (3) studies not using a measure of therapeutic alliance.

Observational and experimental studies were included to ensure current therapeutic relationships were assessed to consider attachment styles and therapeutic relationships in an immediate context. Studies were included between 1978-2010 as 1978 was the year Mary Ainsworth and colleagues presented their attachment classifications of toddlers (Solomon & George, 2008), providing a base for current attachment styles. Bordin's conceptualisation of therapeutic alliance was presented in 1979 and therapies such as Cognitive Behaviour Therapy (CBT) were becoming popular and detailing the importance of the therapeutic relationship in facilitating therapy (Beck, Rush, Shaw, & Emery, 1979).

Articles published in a journal were included to allow for a publishable quality of studies, whilst attempting to keep the criteria broad, to access relevant articles. The review included studies with a client population of individuals, as Smith, Msetfi, and Golding (2010) suggested that interactions between attachment styles and therapeutic alliance are likely to be more complex in therapy situations such as groups, families or couples.

Individuals under the age of 18 years were excluded due to possible differences in the nature of therapeutic relationships between young people and adults. For example, young people are not usually self-referred and at times do not comprehend the reasons they are attending therapy, which may impact on ability to develop a therapeutic alliance (DiGiuseppe, Linscott, & Jilton, 1996). Also, depending on their developmental stage they may be less able to access and report information about attachment relationships. Studies were excluded if they did not measure both therapist and client attachment styles and a relevant measure of therapeutic alliance. This allowed the review to consider effects of the interaction of therapist and client attachment styles on therapeutic alliance.

Before the inclusion and exclusion criteria were applied 1244 articles were identified and following the criteria limiting the search, nine articles were identified. The inclusion and exclusion criteria were applied by adding limits to the search strategy. Titles and abstracts of the studies were then reviewed for relevance.

Data abstraction

Each article was independently reviewed and relevant data abstracted using a modified coding frame based on previous research by Smith et al. (2010). General characteristics of the coding frame were abstracted for each article. These characteristics included: authors, year and place of publication, study design, sample size and characteristics for therapists and clients, type of therapy received, attachment measures, alliance measures and other measures. Each article was reviewed by the author for methodological quality based on a modified guide by Zaza et al.

(2000). Study quality was considered in the areas of: sampling, predictor and outcome variable measures, data analysis and interpretation of results. Information was also abstracted for key findings of each article.

Results

General characteristics of studies

A summary of the main general characteristics of the nine studies is provided in Table 1 (below).

Table 1. General characteristics of the nine studies

No.	Authors, year of publication and country	Study design and attrition rate	Client sample size & characteristics	Therapist sample size & characteristics	Therapy	Attachment measure	Alliance measure	Other process and outcome measures
1	Romano, Fitzpatrick, & Janzen, 2008 Canada	Quasi-experimental	Volunteer students on a counselling course N=59 Age range 21-61 Male: 5 Female: 54	Counsellor trainees N=59 Age range 22-44 Male: 4 Female: 55 Orientations: Psychodynamic, CBT, Humanistic, and Process-Experiential	Short term counselling Average 14 sessions	Experiences in Close Relationships Scale (ECRS) (self-report) Measuring current relationships	Working Alliance Inventory – Client rated (WAI-C) Completed after 5 of the sessions	Target Complaints (TC) (client rated) Client Attachment to Therapist Scale (CATS) (client self-report) Session Evaluation Questionnaire (SEQ) (depth subscale rated by clients)
2	Bruck, Winston, Aderholt, & Muran, 2006 USA	Randomised trial 43% attrition rate	Outpatients with a range of psychiatric diagnoses N=46 Age range 24-61 Male: 20, Female: 26 Diagnosis: 18 mood disorder, 14 anxiety disorder, 6 axis V codes, 4 adjustment	Psychiatrists, psychologists & social workers N=46 Age range 27-59 Male: 15 Female: 31	Cognitive Behaviour Therapy (CBT) N=10 Short-Term Dynamic Psychotherapy	Relationship Scale Questionnaire (RSQ) (self-report) Measuring current relationships	Working Alliance Inventory – Short Version (WAI-12) (both therapist and client self-report) Overall score used Completed after the first 6 sessions	Symptom Checklist-90 Revised (SCL-90R) (client self -report) INTREX Questionnaire (self-report rated by therapists and clients) Inventory of Interpersonal Problems (IIP) (therapist and

#	Author	Design	Population	Sub-sample	Duration	Measure	Measure	Outcome measures
			disorder, 14 cluster C PD, 25 PD NOS, 7 no axis II diagnosis and 4 no axis I diagnosis		(STDP) N=16 30 sessions			client rated) Patient rating of Target Complaints (PTC) Therapist rating of Target Complaints (TTC) Global Assessment Scale (GAS) (therapist completed) Session Evaluation Questionnaire (SEQ) (therapist and client rated)
3	Tyrell, Dozier, Teague, & Fallot, 1999 USA	Quasi-experimental	Community based with serious psychiatric disorders N=54 Age range 25-62 Male: 22 Female: 32 65% Single, 6% Married, 29% Separated/Divorced/ Widowed Diagnosis: 31 schizophrenia, 9 schizoaffective, 8 bipolar, 6 major depression, 48% substance abuse disorder	Clinical case managers N=21 Age range 25-58 Male: 5 Female: 16 43% Single, 38% Married, 19% Separated/Divorced / widowed	Ongoing intensive clinical services Between 7-69 months	Adult Attachment Interview (AAI) (case managers and clients rated by researchers) Measuring past relationships	Working Alliance Inventory (WAI) (client rated self-report) Overall score used Measured once	Quality of Life Interview (client self-report) Beck Depression Inventory (BDI) (client self -report) Global Assessment of Functioning (GAF) (case manager rated)
4	Dozier,	Quasi-	Community based	Clinical case	Ongoing	Adult Attachment	Coded interviews by	None

	Cue, & Barnett, 1994 USA	experimental	mental health centres with psychiatric disorders N=27 Age range 23-47 Male: 21 Female: 6 Diagnosis: 8 paranoid schizophrenia, 8 undifferentiated schizophrenia, 9 bipolar, 1 panic disorder, 1 conversion reaction	managers N=18 Age range 23-48 Male: 6 Female: 12	case management services	Interview (AAI) Measuring past relationships	researchers with case managers assessing session depth and perception of dependency needs. Measured after 5 sessions	
5	Rubino, Barker, Roth, & Fearon, 2000 UK	Analogue 13% Attrition rate	Role-played patients (vignettes) N=4	Clinical psychology trainees N=77 Male: 20 Female: 57	Response to video vignettes approx 3 minutes representing alliance rupture	Relationship Scale Questionnaire (RSQ) (therapist self-report and patients represented attachment styles) Measuring current relationships	Response Empathy scale Depth of Interpretation Scale (researcher rated) Measured once	None
6	Sauer, Lopez, & Gormley, 2003 USA	Naturalistic 35% Attrition rate for therapists 39% Attrition rate for clients	Attending university counselling centres or community counselling agencies N=17 Age range 20-56 Male: 6 Female: 11 59% Single	Psychology or counselling graduate programme N=13 Age range 23-44 Male: 3 Female: 10 Experience 0-over 5 years Orientation: 23% Psycho	Brief therapy including: CBT psychodynamic therapy, eclectic therapy and	Adult Attachment Inventory (AAI) (therapist and client self-report) Measuring current romantic relationships	Working Alliance Inventory (WAI) (therapist and client self-report) Overall measure used Measured over 3 sessions	None

				Dynamic, 23% Eclectic, 31% CBT, 23% Systems	systems therapy 7 sessions			
7	Diamond, Stovall-McClough, Clarkin, & Levy, 2003 USA	Longitudinal	Diagnosis: Borderline personality disorder N=10 Age range 23-38	Clinicians with post-doctoral and / or psychoanalytic training N=5	Transference-Focused Psychotherapy Measures completed after a year of therapy	Patient-Therapist Adult Attachment Interview (PT-AAI) (therapists and clients rated by researchers) Measuring both past and current relationships	Reflective Functioning Scale (information gained by researcher from attachment assessment for therapists and clients) Measured once	Adult Attachment Interview (AAI) (client rated by researchers)
8	Fuertes, Mislowack, Brown, Gur-Arie, Wilkinson, & Gelso, 2007 USA	Naturalistic survey 72% Attrition rate	Clients attending a private practice, mental health centre or clinic/hospital N=59 Age mean 42.12 Male: 17 Female: 42	Therapist members of the American Counselling Association N=59 Age mean 50.43 Male 17 Female: 42 Orientations: Psycho analytic, Humanistic, CBT	Psychotherapy including psychoanalytic/ psychodynamic, humanistic/ existential and cognitive behavioural orientations	Experiences in Close Relationships Scale (ECRS) (therapist self-report) Client Attachment to Therapist Scale (CATS) (client self-report) Both measuring current relationships	Working Alliance Inventory – Short Version (WAI-12) (both therapist and client self-report) Overall score used Measured once	Empathic Understanding Scale (EUS) (client self-report) Real relationship Inventory (therapist and client rated) The Counseling Outcome Measure (therapist and client rated)
9	Mohr, Gelso, & Hill, 2005 USA	Naturalistic 5% Attrition rate	Volunteer undergraduate students on an introductory	Graduate level trainees in clinical or counselling training N=27 Age	One counselling session	Experiences in Close Relationships Scale (ECRS) (self-report)	Session Evaluation Questionnaire (SEQ) (therapist and client self-	None

	psychology course	range 21-42	Measuring current	report)
	N=88	Male: 6	relationships	Countertransferenc
	Age range 17-23	Female: 21		e Behavior Measure
	Male: 37	Experience 0-3		(CBM) (supervisor
	Female: 56	years		rated therapists)
				Measured after one
				session

All studies apart from one, reported age ranges or a mean age; ranges were similar for therapists and clients and across the studies reporting age, were between 17-62 years. Of the studies which reported gender characteristics of participants (N=7) six reported more female therapists and five reported more female clients. Two studies reported relationship status and found over half of clients were single. Seven studies reported information that demonstrated therapists and clients were from a range of ethnic backgrounds. Attrition rates are of particular note, and of the studies which reported a rate (N=6), this ranged from 5-72%.

Therapist levels of training were different between studies; four studies recruited trainees, two studies used case managers (whose training was reported as less than required for psychotherapists) and three studies used qualified therapists, though one study included social workers. Of the studies which reported therapist experience levels (N=4) these ranged from 0 to 32 years. Of the studies reporting therapy type or therapist orientation (N=7), two studies controlled for types of therapy, three studies reported specific therapist orientations and two reported that clients were counselled. Regarding client populations, two studies used volunteer students on counselling or psychology courses, four studies reported a range of diagnoses according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association; APA, 2000), including psychoses, mood disorders and personality disorders. Two studies did not report clients' diagnoses/areas of difficulty and one study used actors to simulate clients.

The attachment and alliance measures were administered at different times within therapy across the nine studies. Four studies completed the attachment assessments before the first session of therapy, whilst the other five studies varied from after the first session to one year of therapy. Five studies collected alliance measures once. The remaining four studies collected alliance ratings between three and fourteen times following sessions. Four studies reported using self-report measures from therapists and clients, three studies reported that the researchers rated a measure and one study reported that supervisors rated a measure. Therapist contact with clients ranged through the studies from approximately three

minutes (analogue study) to 30 hours. One study reported a year of therapy, although the number of sessions was not specified.

Methodological characteristics of studies

A summary of methodological characteristics of the studies are detailed in Table 2 (below).

Table 2. Methodological features of the nine studies

Features	Study Number								
	S1	S2	S3	S4	S5	S6	S7	S8	S9
Sampling frame specified	Y	Y	Y	Y	Y	Y	Y	Y	Y
Screening criteria described	N	Y	N	Y	N	N	N	Y	Y
Selection bias	Y	N	N	N	N	Y	N	Y	N
Attachment measures used reliable	Y	N	Y	Y	Y	Y	N	Y	Y
Attachment measures used valid	Y	Y	Y	Y	Y	Y	Y	Y	Y
Alliance measure reliable	Y	N	Y	Y	Y	Y	Y	Y	Y
Alliance measure valid	Y	Y	Y	Y	Y	Y	Y	Y	Y
Appropriate statistical analysis reported	Y	Y	Y	Y	Y	Y	N	Y	Y
Design effects of the study controlled for in statistical analysis	Y	Y	Y	N	N	N	N	Y	Y
Potential bias addressed	N	N	N	Y	Y	N	N	N	Y
Potential confounders addressed	N	N	Y	Y	N	Y	N	Y	N
Drop-out data analysed	N	Y	N	N	N	Y	N	N	N

Note. Y=feature present, N=feature not present or not reported

All studies outlined a sampling frame, though only four described a specific sample screening criteria. Three studies were considered to be biased in their sampling selection, for reasons including: an inappropriate client group (recruiting counselling students as clients) or therapists selecting clients to be included in the study.

All studies used a measure of attachment styles for therapists and clients and all but two studies reported validity and reliability for their measures. Two studies did not report the reliability for the attachment measure used and one of these studies modified an existing measure of attachment. One study used a measure to assess clients' attachment specifically to their therapist (Client Attachment to Therapist Scale; CATS; Mallinckrodt, Gantt, & Coble, 1995) and two studies included this specific measure (CATS) as

well as global attachment measures. Studies which measured global attachment styles (N=8) differed in relation to measuring current attachment relationships or past attachment relationships. Two studies considered past relationships and four assessed current, one study assessed both current and past, whilst one study asked participants to consider current romantic relationships. However, even when studies used the same attachment measure researchers scored them differently, adapting the subscales to measure attachment dimensions on a continuum. For example, one study used a measure which usually gives four attachment categories, though the researchers only computed two dimensions.

All studies used a measure of an interpretation of therapeutic alliance. Of the nine studies reviewed, four studies used both therapist and client ratings of therapeutic alliance, two studies used only client ratings and three used ratings from the researchers. Five studies used the WAI which has good validity, inter-rater and test-retest reliability (Martin et al., 2000).

Comparisons between studies are hindered due to studies using other alliance measures. These included: researcher coded interviews (Dozier, Cue, & Barnett, 1994), Response Empathy Scale (Rubino, Barker, Roth, & Fearon, 2000), Depth of Interpretation Scale (Harway, Dittman, Raush, Bordin, & Rigler, 1953), Reflective Functioning Scale (Diamond et al., 2003), Session Evaluation Questionnaire (SEQ; Stiles & Snow, 1984) and Countertransference Behavior Measure (CBM; Mohr, Gelso, & Hill, 2005). Comparisons between the studies using the WAI are also difficult due to the researchers using different versions and ratings from the WAI. Three studies used the global score from the WAI, whilst the other two studies used the shorter version of the WAI and one study included goal, task and bond ratings of the WAI.

This review has included studies using varying measures of therapeutic alliance and attachment styles. However, even when the studies have used similar measures there have been differences in the way researchers have administered and analysed the measures. These issues restrict comparisons between the studies.

Appropriate statistical analyses were reported in all but one study, which considered differences in assessment ratings over time and did not describe which other analysis was used. Potential biases were not controlled for in six studies and potential confounding variables were not controlled for in five studies, for example: age, gender or time. When necessary most studies controlled for design effects in the statistical analyses, though in some studies therapists worked with more than one client each, which was not always controlled for in the analysis. When studies reported drop out data all studies analysed the data where possible.

Summary and key findings of the studies

A summary of the studies including key findings are presented in Table 3 (below).

Table 3. Summary points and key findings of the nine studies

Study number	Summary points and key findings
1	• Assessed impact of therapist and client attachment styles and client attachment to therapist specifically on session depth exploration and working alliance. • Clients classed as securely attached to their counsellor viewed sessions as having more depth. • Avoidant attachment in clients was negatively associated with session depth and demonstrated a negatively associated trend with working alliance. • High client attachment anxiety and high to moderate therapist attachment avoidance was associated with lower levels of client perceived session depth.
2	• Assessed therapist and client attachment and introject styles and relation to psychotherapy process and outcome. • Therapists with secure attachment styles predicted working alliance and session depth and achieved better outcome results. • The greater the difference in introject and attachment styles in client and therapist ratings the better the process and outcomes measures.
3	• Exploring how clients and case managers attachment styles influences therapeutic relationships and client functioning. • Clients who were more dismissing had better alliances and functioned better with less dismissing case managers. • Clients who were less dismissing had better working alliances with more dismissing case managers. • Working alliance was significantly correlated with general life satisfaction, relationship satisfaction and negatively correlated with the BDI. • Better working alliance associated with higher global ratings of client functioning as rated by case managers. • Higher levels of client dismissing attachment correlated with higher client rated general life satisfaction.
4	• Exploring the relationship between attachment strategies and ability to therapeutically respond to clients. • Compared with insecure case managers, secure case managers intervened in greater depth with preoccupied than dismissing clients and attended more to dependency needs. • Case managers who were more preoccupied intervened in greater depth and perceived more dependency needs in clients who were more preoccupied.
5	• Relationship between therapist resolution of therapeutic alliance ruptures and attachment styles. • More anxious therapists were less empathic especially with fearful and secure patients. • Therapist responses to fearful and preoccupied patients tended to be deeper and more empathic than to dismissing and secure patients.
6	• Investigated relationship between client and therapist attachment and working alliance. • Anxiously attached therapists had positive effect on working alliance after the first session, but a negative effect over time. • Time was a significant positive predictor of client working alliance ratings.

7	• Exploring impact of attachment styles and reflective functioning on the therapeutic process and outcome.
	• More than half of clients who were classified as an unresolved attachment status shifted to an organised insecure or secure attachment status after a year of therapy.
	• Clients' attachment styles towards their therapists were demonstrated to mirror their attachment styles towards their parents.
	• Therapist attachment ratings did not show any countertransference dynamics towards clients.
	• Clients reflective functioning improved over the course of therapy.
	• Results showed that for clients who had the same therapist, the therapist's reflective functioning varied for each patient.
8	• Examine therapist and client rating of the real relationship in relation to working alliance ratings. Also to examine role of therapist and client attachment on the formation of the real relationship.
	• Positive associations were found between therapist ratings of the real relationship and their ratings of working alliance and client progress.
	• There was a significant negative correlation between therapist ratings of real relationship and therapist avoidant attachment, but not for anxious attachment. Although therapist anxious attachment was negatively associated with client rated progress.
	• There was a positive correlation between client ratings of the real relationship and client rated progress above and beyond the positive correlations between real relationship and client rated therapist empathy and secure attachment to therapist.
9	• Investigating client and trainee therapist attachment as predictors of session evaluation and supervisor rated countertransference.
	• Client fearful attachment was negatively associated with client ratings of session smoothness and depth and with therapist ratings of session smoothness.
	• Therapist dismissing attachment was associated with supervisor ratings of hostile countertransference.
	• Hostile and distancing countertransference was higher when the client had a preoccupied attachment and therapists had a fearful or dismissing attachment pattern.

Study findings will consider the impact of: client attachment, therapist attachment and interactions between client and therapist attachment on therapeutic alliance. It was decided to consider client and therapist attachment separately to aid understanding of the interaction between them. All significant relationships reported were at a minimum level of $p<.05$.

Research has suggested that secure client attachment styles predict a better therapeutic alliance between therapist and client (Satterfield & Lyddon, 1995). Therefore, attachment theory would suggest that insecure client attachment styles would predict a lower level of therapeutic alliance. Of the nine studies reviewed, six reported client attachments impacting on their measure of alliance. Client secure attachment style, affiliative introject style and secure attachment to therapist were found to increase session depth, smoothness and ratings of the real relationship.

Client insecure attachment styles (avoidant/dismissing or fearful) were negatively correlated with session depth and session smoothness, as rated by both client and therapist; and there was a trend for lower ratings of working alliance. An avoidant/dismissing or fearful (insecure) specific attachment to the therapist was also negatively associated with ratings of the real relationship. Preoccupied insecure attachment style was associated with negative ratings of working alliance, session smoothness and perceived client dependency needs. These results for client secure and insecure attachment styles were present across different client populations, different times of measurement and collated from different raters of the measures (client, therapist and researchers).

There is less research on the impact of therapist attachment styles on therapeutic alliance. Therapists comfortable with closeness in interpersonal relationships (equivalent to a secure attachment style) predicted higher client ratings of bond on the WAI (Dunkle & Friedlander, 1996). Berry et al. (2008) found that lower staff anxiety and avoidance attachment styles were associated with more positive therapeutic relationships. Therefore, it would be predicted that therapists with secure attachment styles would produce positive therapeutic alliance ratings.

Six studies reported therapist attachment impacting on therapy process ratings, although results were more mixed than client attachment style ratings. Therapist secure attachment style and affiliative introject style were associated with more session depth, smoothness and a better working alliance rating. Preoccupied/anxious therapist attachment styles were associated with less empathy, lower client rated progress and higher perceived dependency needs in clients. However, in one study therapist preoccupation/anxiety attachment style was also associated with intervention depth. In another study therapist preoccupation/anxiety attachment style, had a positive effect on working alliance at the first session; although this positive effect became a negative association following the initial session.

When considering client and therapist attachment style interactions the picture became more complex. Six studies considered interaction influences between therapists and clients on therapy alliance. It was predicted that clients and therapists with dissimilar attachment styles would report better therapy alliance and those with similar attachment styles would report weaker therapy alliance. This is due to therapists providing clients with an experience which disconfirms their current working models of how they expect others to behave (Tyrell et al., 1999).

Two studies reported that dissimilar attachment styles predicted better working alliances, better functioning and better outcomes. One study considered only the insecure dimension scale and one considered both attachment security and insecurity. Another study reported that more anxious therapists were less empathic especially with fearful and secure clients. This result suggested that therapist and client similarity in attachment styles predicted less therapist empathy, as fearful items on the attachment measure correlated with anxious items.

Two studies reported that dissimilarity of client and therapist attachment styles demonstrated lower levels of perceived session depth and hostile and distancing countertransference. Another study reported that case managers who were similar in their attachment styles to their clients (both

insecure preoccupied) perceived more dependency needs and intervened in greater depth when working together.

Discussion

This review has considered studies including both therapist and client attachment styles, their interaction and the impact on working alliance. Findings indicate that client attachment security predicts better alliance and insecurity predicts lower alliance. This reflects previous attachment research discussed earlier in this review and considers that clients with secure attachments would expect others to behave towards them in a supportive manner; responding to their needs (Kivlighan et al., 1998; Satterfield & Lyddon, 1995).

Therapist secure attachment predicted better alliance, although results for therapist insecure attachment were more mixed. These results also reflect previous attachment research (Black et al., 2005; Ligiero & Gelso, 2002). The finding that insecure preoccupied/anxious therapists were less empathic, client-rated progress was lower and perceived dependency needs higher, may be due to insecure therapists being less able than secure therapists to provide clients with an experience which challenges clients' expectations of others behaviour in response to their attachment needs; therapists experiencing a pull to behave in a manner that clients have come to expect (Dozier et al., 1994). However, the finding that suggests therapists who were more preoccupied/anxious in their attachment style intervened in more depth with clients may be due to them reflecting their own attachment style. Individuals who are preoccupied/anxious may present themselves as more fragile and needy of reassurance, therefore therapists with this attachment style may intervene in more depth with clients to attempt to provide clients with what therapists themselves would want.

The finding which suggests that more preoccupied/anxious attachment styles predict a more positive effect on working alliance after the first session could be related to therapists investing more effort to establish a

positive relationship with a new client and to allow the client to feel positive about the relationship (Sauer, Lopez, & Gormley, 2003). This positive effect on working alliance did not continue as sessions progressed though, and in the Sauer et al. (2003) study, time emerged as a predictor of working alliance. This suggests the importance of investigating change in therapeutic alliance over time. Studies have suggested that there is a minimum about of time required (approximately six sessions) for a therapist and client to establish a therapeutic alliance. However, other studies have suggested that early working alliance is most predictive of outcome (Horvath & Symonds, 1991). Kanninen, Salo, and Punamäki (2000) demonstrated a high-low-high pattern of positive working alliance over time in therapy relationships with secure and preoccupied/anxious individuals. This suggests the importance for future research to measure alliance at various different points in time and possibly control for time as a mediating factor, which could bias results if only measured at the end of therapy. Studies in this review measured alliance at various points within the therapy relationship, therefore it is difficult to compare them or draw conclusions.

Another explanation for the above results regarding therapist attachment styles could be due to studies not considering the possible combinations of therapist and client attachment producing better alliance, or could be due to therapist attachment styles having less of an impact on therapy than clients', since therapy is more likely to focus primarily on client relationships. Whilst it is useful to consider therapist and client attachment styles to help understand their impact on therapeutic alliance, in practice, it appears neither can individually account fully for the relationship development. Since therapeutic alliance is a relationship between two individuals it appears most realistic to consider the interaction of attachment styles.

When considering the impact of the interaction of therapist and client attachment styles it was difficult to draw firm conclusions, as differences and similarities in attachment styles demonstrated both better and lower levels of alliance. This comparison was complicated by the different

dimensions studies used. Some studies considered secure-insecure and some preoccupied/anxious-avoidant/dismissing dimensions.

The studies which suggested that dissimilar attachment styles for therapist and clients produced better alliances and outcomes is thought to be due to therapist providing clients with an experience which challenges their usual interpersonal and emotional strategies. However, what is less clear is why clients would rate a relationship as stronger when working with a therapist who challenges them. Tyrell et al. (1999) considered time an important factor to address this issue; suggesting that initially a client may feel more threatened, though over time may be more able to recognise the relationship as a safe base to explore new ways of interacting. The finding which suggested therapist and client similarity of attachment styles produced less empathy could be due to therapists' attachment style getting in the way of them providing a challenge to clients' attachment strategies. It would be essential for future research to compare the different dimensions that have complicated this review; secure-insecure and the preoccupied-dismissing dimensions. This may allow a clearer picture of the specific interaction which predicts a positive therapeutic alliance.

The finding which suggests dissimilarly of attachment style of therapists and clients predicting lower levels of perceived session depth and hostile/distancing countertransference could also be explained by the time factor. One of these studies reporting these results considered ratings of alliance after only one session and the other study used alliance measures from five sessions. Perhaps initially clients felt more unsettled and overwhelmed by the dissimilarity in attachment styles. However, another study which suggested case managers who were similar in attachment styles to their clients (both insecure preoccupied), and perceived more dependency needs and intervened in greater depth, could illustrate that there are many other variables impacting on the relationship. These could include factors such as: interpersonal characteristics (Dunkle & Friedlander, 1996), client past experience (Horvath & Symonds, 1991) and level of therapist experience (Mallinckrodt & Nelson, 1991). Therefore,

future studies should also examine and control for possible mediating factors including time and therapist skills, which may impact on alliance.

Apart from when considering client attachment security and insecurity separately, there were differences across the results in terms of population characteristics of clients and therapists, time point of measurements being administered and who rated the assessments. Therefore, future research needs to address these issues and direct studies to use a standard measure of attachment and therapy alliance, within different populations to allow further comparisons.

Limitations of present research

Methodological limitations of the studies reviewed have made reviewing and synthesising results difficult. Differences in alliance and attachment measures have meant a reduced ability to generalise from the studies. Also, some studies used relatively small sample sizes and those using volunteer client populations have compromised ecological validity.

The review highlights the differences in measurements of both alliance and attachment. The attachment assessments measure similar concepts, though there is no agreement about which is the most useful. A standard measure is required to be able to compare findings across the research. Regarding the alliance measures, many areas of research use the WAI. However, there appeared to be variation, including in this review, as to the definition and concepts associated with alliance.

This review attempted to be broad enough to include as many studies as possible considering the interaction between therapist and client attachment style. However, this meant including studies using a variety of attachment and alliance assessments compromising ability to compare studies fully and is a criticism of the current review. The current review would perhaps have been able to draw more comparisons and conclusions following more investigations in this area of interaction between therapist and client attachment style, and after more longitudinal studies.

Clinical implications

Research has indicated that better therapeutic alliances are linked with positive outcomes regardless of the type of therapy used (Martin et al., 2000). Although the results of the interaction between therapist and client impacting on alliance are restricted, this review demonstrates there is evidence that client and therapist attachment styles impact on alliance. Specifically, that secure attachments predict better alliance. Therefore, this review emphases previous recommendations (Shorey & Snyder, 2006) that an attachment measure is used with clients at the beginning of therapy, as well as therapists being aware of their own attachment style.

Measuring client attachment styles for therapy could increase therapist understanding of client behaviour, the therapy relationship interactions and may provide an indication of therapists own optimal behaviour for positive outcomes. However, these assumptions have not been tested in research. The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) measures four attachment styles (secure, preoccupied, dismissing and fearful) and is quick and easy to administer and may provide a realistic option for use in therapy. However, it is possible that therapists anticipating clients' attachment styles may mean they avert possible difficulties/ruptures in therapy that may have been important to process to improve therapeutic alliance and learning for the client with regard to relationships.

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Journal paper

Investigation of the relationship between therapist and client attachment styles and perceptions of therapeutic alliance in a sample of inpatients with psychosis[*]

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Abstract

This study investigated the relationship between therapist and client attachment styles and clients' perceptions of working alliance, when clients were inpatients with a diagnosis of psychosis. Therapists and clients (46 pairs) rated their attachment styles and working alliance. Most therapists rated more than one client, meaning data was nested. A regression analysis indicated that the difference between therapist and client attachment styles did not significantly predict client rated working alliance. The analysis controlled for the nested data structure and therapist rated working alliance. Results and implications are discussed, including considering other variables influencing results and recommendations for future research.

Introduction

The therapeutic alliance pertains to interpersonal relationship processes occurring between the therapist and client (Sauer, Lopez, & Gormley, 2003). Individuals internally organise relationship information based on attachment styles which can influence their perceptions of therapeutic alliance in individual therapy (Tyrell, Dozier, Teague, & Fallot, 1999). There is growing evidence demonstrating the importance of attachment

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patterns in the therapy relationship, although empirical studies are low in number. Studies have not always considered the unique contribution of both therapist and client attachment styles to therapeutic alliance (Daniel, 2006), or both client and therapist perceptions of the alliance. There are also few studies considering clients (particularly inpatients) with psychoses, a set of symptoms which can influence attachment styles (Berry, Barrowclough, & Weardon, 2007).

The present study aimed to address these gaps in current knowledge by assessing both client and therapists attachment styles and both client and therapist perceptions of working alliance in a sample of inpatients with psychosis. The current study also aimed to address limitations of past research including recruiting therapists who would approach therapy in a more structured manner to be able to assess working alliance more effectively. Previous research has been criticised for adopting narrative measures of attachment which may not measure current attachment style accurately, particularly in a psychosis sample. This study addressed this issue by using self-report measures of attachment.

The current study investigated the relationship between therapist and client attachment styles and perceptions of therapeutic alliance in a sample of inpatients with psychosis. Therefore, this review will focus on the areas of attachment and therapeutic alliance and literature in relation to clients with a diagnosis of psychosis.

Attachment

Attachment theory has been considered an important framework to view individuals' ability to develop relationships. Attachment can be defined as an affectionate relationship formed with a specific person, which is consistent and emotionally important (Bowlby, 1969/1997, 1973/1998, 1980/1998). This is characterised by an individual attempting to maintain closeness to their attachment figure, especially in times of distress and experiencing anxiety if they are separated. Bowlby (1969/1997, 1980/1998) introduced the concept of the working model of the attachment figure and the self. These are internal cognitive-affective structures of

attachment, first constructed in childhood from past experiences of an attachment figure. Working models provide an individual with an internalised template which guides them in future attachment interactions (Bowlby, 1988).

Individuals' working models and attachment behaviour were initially categorised into distinctive attachment patterns based on observational studies by Ainsworth of infant and mother interaction (Ainsworth, Blehar, Waters, & Wall, 1978). A securely attached child may expect the caregiver to act in a loving, reliable and responsive way allowing them to feel safe to explore their environment. An internal working model of an insecurely attached child would experience the caregiver as inconsistent in their responses and emotionally unavailable. In this case the child would develop other strategies to reduce distress, which could include becoming self-reliant (insecure avoidant/dismissing attachment style) denying attachment needs or becoming overly dependent (insecure anxious-ambivalent/preoccupied attachment style) in an attempt to gain a response from the attachment figure. Two main methods of measuring adult attachment patterns have been developed; narrative and self-report. As both these types of measurement have developed it appears that researchers recognised initial assessments did not take into account the overlap between different attachment styles and conceptualised styles more appropriately in dimensional rather than categorical terms (Collins & Read, 1990; Crowell, Fraley, & Shaver, 2008, Chapter 26).

Attachment, psychosis and inpatients

Attachment theory provides a framework for conceptualising the development of interpersonal functioning and distress through relationship experiences and emotional regulation (Mallinckrodt, 2000). There has been limited research involving attachment theory and psychosis even though distress, trauma and interpersonal difficulties are prominent features of psychosis, which would influence individuals' attachment behaviours (Berry et al., 2007). Berry et al. (2007) completed a literature review in the area of attachment and psychosis and reported a firm link between attachment theory and psychosis, pointing out common aspects

of Bowlby's working model and psychosis, including: the importance of past experiences, social functioning and expectations of others.

Berry et al. (2007) reported further relevance of attachment theory to psychosis diagnoses, in particular through understanding areas including: vulnerability to the development of psychosis, maintenance and coping with psychosis and the course and outcome of psychosis. For example; there is consistent evidence linking interpersonal trauma to the development of psychosis (Mueser et al., 1998), in coping with psychosis individuals with dismissing attachment styles were less likely to report distress (Dozier & Lee, 1995) and insecure attachment styles in individuals with psychosis diagnoses were related to 'sealing over' recovery styles (a lack of desire to understand psychotic experiences; McGlashan, 1987; Tait, Birchwood, & Trower, 2004).

Dozier and colleagues have carried out much of the research in the area of attachment and psychosis and reported evidence of greater attachment insecurity in schizophrenia compared to affective diagnoses supporting the particular relevance of attachment theory for psychosis (Dozier, 1990). Research has also reported high levels of insecure avoidant attachment in schizophrenia, using a large sample (approximately 800 with a diagnosis of schizophrenia; Mickelson, Kessler, & Shaver, 1997).

The small number of studies investigating attachment and psychosis have been mainly been conducted on a community based sample of clients (Goodwin, 2003). Hospital based inpatient health care has not been a focus of study, though the number of admissions to secondary care for schizophrenia and related disorders in 2008/09 was 26,100 (NICE guidance, 2010). The current study recruited an inpatient sample which meant less difference between clients' current physical living environments and therefore, a reduction of possible extraneous variables impacting on results. Focusing on an inpatient sample builds on research recruiting community based samples.

Research in the area of attachment and psychosis provides a unique opportunity to explore attachment styles in distressed individuals, when

attachment behaviours are likely to be amplified (Romano, Fitzpatrick, & Janzen, 2008). Psychosis will influence an individual's interpersonal relationships and therefore, the specific formation of therapeutic relationships. This influence on interpersonal relationships may be more marked in this clinical population than others as research has found higher attachment insecurity in schizophrenia compared to affective diagnoses (Dozier, 1990). The present study investigated attachment style differences between therapists and clients including how these differences may relate to a better therapy relationship and therefore, allows for consideration of factors that may lead to positive treatment outcomes for this client group.

Working alliance

Conceptualisations of therapeutic alliance have reached a consensus that therapists and clients cooperate to build a relationship allowing the client to achieve treatment goals (Horvath & Bedi, 2002, Chapter 3). Successful therapeutic outcomes have been demonstrated from strong collaborative relationships independent of psychological approach (Martin, Garske, & Davis, 2000). Drop-out rates in therapy have been signified by poor therapeutic alliance (Horvath, 2000).

Bordin (1979) conceptualised therapeutic alliance as having three components: bond, task and goal. The bond component relates to the degree of emotional relationship between therapist and client, and the other two components are related to agreement between therapist and client on the tasks and goals of therapy. Studies have tended to focus on client rated working alliance as the main factor influencing positive outcomes (Horvath & Symonds, 1991). However, clients' may be aware of their therapists' views of the alliance and this may influence clients' alliance ratings creating a demand characteristic in the self-report. Clients may want to be seen as progressing and as having a similar view to their therapist. Therefore, it is relevant to consider therapist ratings of working alliance and the possible influence on client rated working alliance. Also, it has been reported that two perspectives yield more reliable ratings of alliance (Daniel, 2006).

Client attachment, therapist attachment and therapeutic alliance

Attachment styles influence how individuals form interpersonal relationships and therefore, client attachment styles can be expected to influence the formation of the therapeutic relationship. Kivlighan, Patton, and Foote (1998) found that clients who trusted their therapist formed stronger working alliances predicting positive therapeutic change. However, therapeutic change may also occur for insecure clients through the incongruence of their past attachment relationships and the responsive, supportive relationship the therapist is able to provide; disconfirming their current working models (Tyrell et al., 1999). Research has suggested that clients are more likely to have insecure attachments (Crowell et al., 2008, Chapter 26).

Attachment styles of therapists would also be expected to impact on the development of a therapeutic alliance with a client (Black, Hardy, Turpin, & Parry, 2005). Lieper and Casares (2000) reported that 69.9% of Clinical Psychologists in Britain were assigned a secure attachment style. There has been conflicting research regarding the influence of therapists' attachment style on the therapeutic alliance. Ligiero and Gelso (2002) found no relationship; while Black et al. (2005) found that secure therapist attachment style was positively correlated to therapist reported positive therapeutic alliance. These different findings may be due to therapist attachment styles impacting on therapy less than client attachment styles. However, there could be an interaction effect of both therapist and client attachment styles impacting on alliance, which would be realistic considering that the therapeutic alliance is a relationship built between two individuals.

Most therapists are globally securely attached and most clients are globally insecurely attached. However, there are differences within those attachments which interact and may produce more or less effective relationships for positive therapy outcome. Therefore, this study was particularly interested in exploring these differences in attachment styles and focused on the preoccupied (anxiety) vs. dismissing (avoidance)

dimension. Research by Tyrell et al. (1999) focused on an equivalent preoccupied vs. dismissing dimension and found that case managers and clients had a better working alliance when their attachment styles on this dimension differed. The findings were explained by the authors as being due to dissimilarity aiding therapists to disconfirm clients' current expectations of how attachment figures are likely to respond towards them; producing both higher ratings of working alliance and positive therapy outcomes.

Aims

The present study's main aim was to explore how the interaction between therapist and client attachment styles is associated with clients' (with a diagnosis of psychosis) perceptions of working alliance in therapy. Specifically, it hypothesised that clients with psychoses and therapists who were dissimilar in terms of the preoccupied vs. dismissing dimension of attachment would predict better client perceptions of working alliance.

It was considered that therapist rated working alliance may influence client rated working alliance through clients' possible awareness of their therapists' views of working alliance. This could lead to a demand characteristic of clients rating alliance to appear to be progressing or to be similar to their therapist. Therefore, therapist rated working alliance was controlled for in the analysis.

The inclusion of the preoccupied vs. dismissing dimension is related to being able to compare the results from the present study with other research in the areas of attachment, working alliance and client populations with a diagnosis of psychosis (see Methods, Data analysis for further explanation of this).

Methods

Design

The present study was a cross sectional within subjects design, with clients nested within individual therapists.

Participants

Participants were clients and therapists identified and recruited from an independent healthcare organisation. The organisation had twelve mental health locked rehabilitation inpatient hospitals situated across the UK.

Clients included in the research had a primary diagnosis of psychoses, including schizophrenia, delusional disorders and schizoaffective disorder according to The International Classification of Diseases 10th Revision (ICD-10) groups coded as F20 to F29 (World Health Organisation, 1992). When therapists identified clients they were working with they were able to inform the researcher (by accessing clients' notes) of clients' diagnoses.

Therapists included in the study were assistants (with a minimum of one year clinical experience), clinical or forensic psychologists. Therapists had been working with clients for a minimum of three months and had completed a minimum of six sessions together. This criteria was to ensure that there had been sufficient time to establish a working alliance, in line with another study investigating working alliance (Berry, Barrowclough, & Weardon, 2008). Informed consent was obtained from all participants.

Sample size

Sample size was calculated a-priori using G*Power Version 2.0 (Erdfelder, Faul, & Buchner, 1996). The effect size used in the power calculation was based on previous literature (Tyrell et al., 1999). Tyrell et al. (1999) used regression analyses and correlations to analyse the relationships between client and therapist attachment styles and working alliance and found an

effect size (r) of 0.42. To power a regression analysis for the present study with one predictor (the overall difference score between client and therapist attachment styles) a sample size of 39 individuals would give the study 80% power (5% alpha level; one tailed significance) to detect a relationship.

It was appropriate to power the study based on the number of clients the study aimed to recruit because for the purpose of this research one 'participant' counted as a therapist and client dyad and the outcome variable was client rated working alliance. Data was collected for 61 individuals and this meant 46 pairs which included 15 therapists and 46 clients, with therapists rating their perception of working alliance with more than one client.

Measures

Working Alliance Inventory (WAI)
The WAI was developed by Horvath and Greenberg (1989) and allows both clients and therapists to rate working alliance (WAI-C and WAI-T). The WAI is based on Bordin's (1979) concepts of task, goal and bond and measures these as contributing to an overall total score of alliance. Goal and task are considered to relate to the cognitive aspect of alliance. The bond concept is considered to relate to the emotional aspect of alliance.

Scores were computed for the task, goals and bond components and a global score was derived with high scores relating to good working alliance. The full form comprised 36 items which participants rated on a seven point Likert scale ranging from 'never' (1) to 'always' (7). Global scores range from 36-252 and component scores range from 12-84.

Horvath (1994, Chapter 5) provided evidence for the good reliability of the WAI (Cronbach's Alpha, 0.84 to 0.93) and reliabilities for the subscales were also in a similar range (0.92 to 0.68). The WAI has been used with inpatients and reliability was reported (alpha, 0.8 and above) for the global and bond ratings for case managers and clients (Hietanen & Punamäki, 2006). A review of over 30 measures of alliance examined validity and

found the WAI to have good validity data and reported it was a widely used tool for measuring alliance (Elvins & Green, 2008). This measure was chosen for the study as it was able to measure both client and therapist perspectives of alliance.

Relationship Questionnaire (RQ)

The RQ was used to obtain continuous ratings of attachment styles for clients and therapists in the study. It was developed by Bartholomew and Horowitz (1991) and consists of four statements outlining four attachment prototypes: secure, dismissing, fearful and preoccupied, which are based on Bartholomew's (1990) model. The participants were asked to rate how much each statement describes them in close relationships on a seven point Likert scale, ranging from 'not at all like me' (1) to 'very much like me' (7). The RQ also asks participants to choose a best fitting attachment prototype.

Griffin and Bartholomew (1994a, pp. 17-52) conducted three studies using the RQ. By deriving attachment variables using three assessment methods they constructed a multi-trait multi-method matrix and demonstrated convergent and discriminant validity for the RQ. Schmitt et al. (2004) used the RQ across 62 cultures with 17,804 participants and found it was psychometrically valid in most cultures and so provided evidence for ecological validity. The RQ was chosen for the study as it was able to rate the attachment prototypes for both clients and therapists, so their scores are comparable.

Procedure

Therapists were approached by email after the Head of Psychology obtained permission for this contact at the independent healthcare organisation's bi-monthly psychology department meeting. Therapists were given the information sheet and consent form to consider. All participants were given at least 24 hours to consider these before they were again contacted by the researcher. Participants were able to ask questions at any point in the procedure. Following therapists consenting to take part in the study they identified all clients they were working with on

an individual basis who met the inclusion criteria. Clients were selected by drawing names from a hat (see Figure 1 for recruitment flow chart).

Figure 1. Recruitment and attrition flowchart

```
┌─────────────────────┐        ┌─────────────────────┐
│ All therapists were │        │ 18 therapists agreed│
│ approached by email │        │ to take part in the │
│ after the Head of   │───────▶│ study               │
│ Psychology obtained │        │ 4 declined to take  │
│ permission for this │        │ part in the study   │
│ contact. The total  │        └─────────────────────┘
│ number of therapists│
│ contacted was 22    │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐        ┌─────────────────────┐
│ 18 therapists were  │        │ 3 therapists could  │
│ asked to identify   │        │ not identify any     │
│ all clients who met │───────▶│ clients meeting the │
│ the inclusion       │        │ inclusion criteria  │
│ criteria            │        └─────────────────────┘
└─────────────────────┘
          │
          ▼
┌─────────────────────┐        ┌─────────────────────┐
│ 15 therapists       │        │ 35 clients declined │
│ identified a total  │        │ to take part in the │
│ of 81 clients they  │───────▶│ study               │
│ were working with   │        └─────────────────────┘
│ who met the         │
│ inclusion criteria  │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│ 61 individuals, 15  │
│ therapists and 46   │
│ clients took part in│
│ the study           │
└─────────────────────┘
```

Clients were approached initially by a member of the psychology department as part of their healthcare team, at their resident hospital. Clients were given the information sheet and consent form to consider, though the study was also explained verbally, taking around 10 minutes. Following clients consenting to take part in the study they completed the RQ and the WAI taking a maximum of 30 minutes.

After client data had been collected therapists completed their questionnaires, taking a maximum of one hour as therapists had more than one client relationship to rate. To attempt to correct for possible recall

bias therapists were asked to read over individual client's notes before rating them to make sure they were familiar with a particular client before rating working alliance. Data for other variables were also collected as possible confounders on the results (but not included in the main analysis) which included: client and therapist gender, therapist type of therapeutic approach and therapist years of experience.

Data analysis

The statistical programme SPSS version 17.0 was used to analyse the data collected. To create a variable showing the difference between therapist and client on the preoccupied and dismissing attachment styles it was necessary to prepare the data prior to the analysis. It was necessary to include only the preoccupied and dismissing attachment styles for reasons including: being able to compare results with other research and to analyse the most useful information. The attachment style data from the RQ (based on Bartholomew's model, 1990) yielded four attachment prototypes. All the prototypes can be combined to create two dimensions: model of other and model of self. However, these two dimensions are combined in a way that is different to the dimensions used in previous studies considering attachment style and working alliance with clients with psychosis (Dozier, Cue & Barnett, 1994; Tyrell et al., 1999). Since there are so few previous studies, it was important to prepare the data in a manner which could be more comparable to previous research. The preoccupied and dismissing prototypes can be calculated to be similar to attachment measures used in previous research. This also provides a link between different types of attachment measures, bridging the gap between narrative and self-report measurements of attachment.

In addition to making the data comparable, it was important to consider what data would be most useful to analyse for this particular clinical group (a sample of individuals with a diagnosis of psychosis). When combining the secure and fearful prototypes on the RQ to create a dimension comparable to previous research, the dimension can be seen as an equivalent to the secure vs. insecure dimension used in research. As it is clear that clients are more likely to be insecure and therapists secure, a

secure vs. fearful dimension was expected to have little utility for exploring the relationship between client and therapist attachment style and working alliance. Therefore, it was necessary to create and only include a preoccupied vs. dismissing dimension of attachment.

Creating a preoccupied vs. dismissing dimension of attachment provided an absolute dyadic difference-score used for the purposes of subsequent analyses. This was computed by adding clients' and therapists' preoccupied and dismissing scores together (after all their dismissing scores had been reverse-keyed), then client dismissing-preoccupied scores were subtracted from therapist dismissing-preoccupied scores to give a dyadic difference score for each client; the absolute value of this difference – ignoring directionality – was then identified by computing the square root of the squared difference-score. The rationale for using an absolute difference-score is that the study hypothesised that the magnitude of difference would predict client rated working alliance; no specific predictions were made regarding directionality, as dissimilarity in either direction (on the dismissing vs. preoccupied dimension) would be expected to enhance working alliance. Absolute difference-scores could range from 0 to 14, with higher numbers indicating greater client-therapist dissimilarity on the dimension of dismissing vs. preoccupied attachment.

Parametric statistical tests assume that observations are independent of one another, meaning that knowledge of scores for one individual provides no information about scores for another individual. The data collected for this study was not independent as therapists rated working alliance and their attachment styles with more than one client, meaning that client data was nested within therapist data. This can lead to dependency in the data, meaning relationships may be detected only because there is a relationship between therapists and more than one client. Various options were considered to account for this statistically when analysing the.

Based on previous research analyses suggesting that client and therapist attachment styles can predict working alliance (Tyrell et al., 1999), to meet the aims of the present study and to take into account nested data a regression analysis was considered the most appropriate statistical

analysis (Cohen, Cohen, West, & Aiken, 2003). Regression analyses are useful because an outcome variable (in this case client rated working alliance) can be predicted from a predictor variable (in this case the difference in therapist and client attachment styles; Field, 2009). This is accomplished by fitting a statistical model to the data in the form of a straight line which best summarises the pattern of the data. A regression analysis can detail how much variability in the outcome can be attributed to the predictor. It can also detail how important a variable is in predicting the outcome when other variables are held constant.

In particular a regression analysis (fixed effects) using dummy coded variables has been reported as being appropriate for nested data and was utilised in the present study (Cohen et al., 2003; Galbraith, Daniel, & Vissel, 2010). This approach analyses the variables of interest but also includes a set of dummy coded variables to identify the group membership of each individual in the data set and control for it. In the present study the 15 therapists or groups were dummy coded to create variables which could be included and held constant in the regression analysis so that the possible influence of nested data did not impact on the results. This approach is recommended for analysing nested data particularly with small numbers of groups in the data set (less than 20), as there is in the present study (Cohen et al., 2003; Kreft & De Leeuw, 1998).

A regression analysis was also useful to be able to control for other variables as research has suggested that there may be other factors influencing the relationship between attachment and working alliance (Black et al., 2005; Bruck, Winston, Aderholt, & Muran, 2006). In the current study therapist rated working alliance was included in the analysis to control the possible confounding influence on the results.

To be able to hold the dummy variables and therapist rated working alliance constant and examine the contribution of the predictor variable it was necessary to enter the data into the regression model hierarchically. Other methods of regression data entry would not have allowed the dummy coded variables and therapist rated working alliance to be grouped separately from the predictor variable. Entering the controlled variables

first followed by the predictor variable also allows the model to compute how much variance in the outcome is attributable only to the predictor variable and whether this is significant. A correlation was not completed prior to the regression analysis, which would be the usual process to examine whether variables are correlated and to make a decision whether to proceed with the regression. A correlation would not have been valid information to base a decision on, because it would not have accounted for the nested structure of the data.

An alpha level of 0.05 was used to accept the main test statistic as significant (Field, 2009). There were no missing values in the data. Apart from the assumption of independence, the assumptions of the regression model were met.

Ethics

Ethical approval for the research was granted from a local Integrated Research Application System (IRAS) NHS board. Ethical approval was also granted from The University of Lincoln Ethics Committee and the research and development group of the independent healthcare organisation providing access to participants. Recruitment of participants and data collection took place after approval from these bodies had been granted.

Results

Sample characteristics

A summary of sample characteristics is provided in Table 4 (below).

Table 4. Therapist and client sample characteristics

Characteristic		Therapist	Client
Gender:	Male	3 (20%)	34 (74%)
	Female	12 (80%)	12 (26%)
Therapist therapeutic orientation: CBT only		9 (60%)	
CBT plus another therapeutic approach		6 (40%)	
Range of therapist years of therapeutic experience		1-25	
Mean (SD) of therapist years of therapeutic experience		7 (6.6)	

Note. CBT = cognitive behavioural therapy

All clients had a primary diagnosis of psychosis and most were detained on a section of the Mental Health Act (2007).

Descriptive statistics

A summary of descriptive statistics is provided in Table 5 (below). Table 5 shows the mean and standard deviation for WAI total scores for clients and therapists. It also shows therapist and client preoccupied and dismissing attachment style ratings on the RQ and the absolute difference score on the preoccupied vs. dismissing attachment dimension.

Table 5. Descriptive statistics for therapist and client WAI total scores, RQ preoccupied and dismissing attachment styles and the absolute difference score on the preoccupied vs. dismissing attachment dimension.

	Mean	Standard Deviation
Therapist (n=15)		
WAI total score	192.13	28.20
Preoccupied attachment	1.60	0.99
Dismissing attachment	3.07	1.28
Dismissing-preoccupied (bipolar) score	-1.47	1.96
Client (n=46)		
WAI total score	195.22	32.93
Preoccupied attachment	3.11	1.92
Dismissing attachment	4.70	2.09
Dismissing-preoccupied (bipolar) score	-1.59	2.75
Dismissing-preoccupied difference-score[†] (n=46 dyads)	2.54	2.12

Note. Dismissing-preoccupied score ranges from -7 (most dismissing) to 7 (most preoccupied).
[†]Represents the absolute difference between Client and Therapist scores on the bipolar dismissing vs. preoccupied dimension.
RQ = Relationship Questionnaire; WAI = Working Alliance Inventory.

In relation to therapists, all therapists rated themselves as securely attached overall, which is higher than reported in the literature (69.9%; Lieper & Casares, 2000). With regard to clients, 74% rated themselves as insecure overall (the remaining 26% rated themselves as secure overall), which was to be expected based on previous research (Crowell et al., 2008, Chapter 26). Within clients' insecure ratings dismissing attachment accounted for 44%, preoccupied for 11% and fearful for 19%.

Regression analysis for attachment differences and client rated working alliance

A regression model was computed using the absolute difference between therapists and clients on the preoccupied vs. dismissing attachment

dimension as the predictor variable and client rated working alliance as the dependent variable. To account for the client data being nested in therapist data the dummy coded variables were included in the analysis and controlled for. Therapist rated alliance was also controlled for to allow for a possible confounding effect on the relationship between client rated working alliance and differences on the attachment dimension. There was not a significant relationship between the difference score for therapist and client attachment styles and client rated working alliance, when controlling for nested data using the dummy coded variables and controlling for therapist rated working alliance (see Table 6, below).

Table 6. Regression for attachment difference score predicting client rated working alliance, controlling for dummy coded variables and therapist rated working alliance.

	β	*t*	*p*	ΔR^2	*F*	*p*
Step 1				.42	1.44	.19
Control variables						
TWAI	.72	2.8	.01			
Step 2				.00	1.31	.26
Control variables						
TWAI	.08	2.7	.01			
Dismissing-preoccupied difference score	-.03	-.14	.88			

Note. TWAI = therapist-rated working alliance. Individual coefficients for Step 1 dummy coded variables have not been reported as they are controlled variables and were not included in the analysis to predict the outcome variable. Coefficients are included for therapist rated working alliance, although again this variable was controlled and not included in the analysis to predict the outcome variable. Dismissing-preoccupied difference-score = the absolute difference between client and therapist scores on the dismissing vs. preoccupied attachment dimension.

There is a weak negative relationship between the variables, meaning that as client rated working alliance increases, the difference between therapist and client decreases, which would be contrary to the direction hypothesised. However, the relationship is not significant. Since a negative relationship was found this has consequences for the power calculation

which assumed a one-tailed significance test, meaning that if the result was significant the alpha level would be inflated leading to increased risk of a Type I error. This was an unexpected result contrary to the hypothesis of the current study and caution must be taken when interpreting the result. When the dummy coded variables were controlled therapist rated alliance significantly and positively predicted client rated working alliance.

Discussion

The current study hypothesised that when clients and therapists scored dissimilarly on the preoccupied vs. dismissing attachment dimension, this would predict better clients' perceptions of working alliance. This research did not confirm this hypothesis.

When considering client and therapist attachment style interactions there has been some conflict in previous literature. This has been due to studies adopting various different methods with regard to areas such as, population samples and measures of attachment style and working alliance. Currently, there is only a small evidence base considering the interaction between client and therapist attachment styles, which means that it is difficult to draw generalisable conclusions from the research. For example, Romano et al. (2008) found that dissimilarity of client and therapist attachment styles demonstrated lower levels of client perceived session depth, measured by the Session Evaluation Questionnaire (SEQ; Stiles & Snow, 1984). However, clients were volunteer counselling students and session depth was not directly related to working alliance. Mohr, Gelso, and Hill (2005) found that dissimilarity of client and therapist attachment styles were associated with higher levels of hostile and distancing countertransference. The client population from the study were volunteer psychology students who had only completed one therapy session (Mohr et al., 2005). The two studies outlined above both measured working alliance and attachment differently.

The current study has not clarified previous research considering clients with diagnoses of psychosis, which reported that dissimilar attachment

styles for clients and therapists predicted better client rated working alliances (Tyrell et al., 1999). Tyrell et al. (1999) explained their results could be due to therapists providing clients with an experience which challenges their usual interpersonal and emotional strategies. Initially clients may feel more threatened, although over time they are able to recognise the relationship as a secure base and explore new ways of interacting (Tyrell et al., 1999).

One of the main differences between the present study and the Tyrell et al. (1999) study relates to the length of time clients and therapists had been working together. In Tyrell et al. (1999) clients and therapists had been working together for an average of 31 months whereas the present study required a minimum of three months working together and at least six sessions. While this is considered an adequate amount of time to build a therapeutic relationship (Berry et al., 2008), it is possible that clients had not had enough time to feel safe enough to allow the dissimilarity of attachment styles to challenge them and reap a better working alliance.

Another difference between the current study and Tyrell et al.'s (1999) research is the population sample; the present study collected data from inpatients while Tyrell et al. (1999) used a community based sample. Using an inpatient population may have meant some clients were more unwell, necessitating them being in a hospital setting. It may also have meant that they perceived therapists as part of the staff group as a whole (Pulido, Monari, & Rossi, 2008) and as having much more power than themselves (Riqz & Target, 2010), especially since most clients were detained under the Mental Health Act (2007). The concept of reactance has been used to describe an individual's anxiety when their freedom is threatened and they experience a loss of power and choice, which may be experienced when initially entering a therapeutic relationship (Neslon & Neufeldt, 1996; Riqz & Target, 2010). This is related to a fear of personal challenge stemming from past relationships experiences (Neslon & Neufeldt, 1996), which could be a more predominant occurrence for clients with insecure attachment styles. Therefore, it is possible that due to less time to build a therapeutic relationship and the possibility of having more severe psychopathology clients felt more threatened and could not yet use

the relationship in the same way described in Tyrell et al.'s (1999) research.

The results of the present study showed that when the dummy coded variables were controlled therapist rated alliance significantly and positively predicted client rated working alliance. This could be explained by considering that clients' may be aware of their therapists' views of the alliance and this may influence clients' alliance ratings, creating a demand characteristic in the self-report. Clients may want to be seen as progressing and as having a similar view to their therapist. However, this concordance between clients' and therapists' ratings of working alliance may also indicate a similar perception of the therapeutic relationship, which could be a positive indicator of the relationship quality in itself. Studies considering the relationship between client and therapist rated working alliance have reported mixed results; some studies reported a significant positive relationship (Fuertes et al., 2007; Sauer et al., 2003) and other research found no significant relationship (Couture et al., 2006).

Limitations of present research

Self-report assessments measuring attachment were used in this study and have been criticised for their focus on conscious thoughts, feelings and behaviours (Crowell et al., 2008, Chapter 26). This is especially relevant as clients with a diagnosis of psychosis may have a lack of insight into their behaviour (Brent, Giuliano, Zimmet, Keshavan, & Seidman, 2011). It is also possible that individuals are not consciously aware of the way they relate to others and might not be able to rate themselves objectively. The current study addressed this problem partly by letting clients know that the research was interested in their relationship with their therapist. This would have meant clients were more likely to consider their attachment style based on their interactions with their therapist which would have given a definite context to reflect on. However, it would be useful for future studies to include informant reported ratings on attachment, which could be compared with client ratings and may give a richer picture of attachment behaviour.

The present research was cross sectional in design which limits inferences concerning causation. Previous research focusing on attachment and psychosis has mainly been limited to identifying correlations between variables. Longitudinal designs are needed to demonstrate the way in which interpersonal difficulties associated with psychosis can influence attachment styles within a therapy setting. This would therefore contribute to our understanding of therapeutic relationships for this client group.

Longitudinal studies would also be important to assess working alliance ratings over time, allowing length of treatment to be better controlled and allowing improvement in working alliance to be accurately measured; while controlling for confounding variables. Considering the possible influence of stage of therapy on alliance ratings, it would have been useful for the present study to collect data on phase of therapy. However, the independent healthcare organisation where therapists and clients were recruited aim for specific time limited goals for client discharge, which may have meant phases of therapy would have been unique to their time scales and not generalisable to other clinical settings.

Clinical implications

The current study did not find that the combination of client and therapist attachment styles predicted working alliance. It is speculated that a possible reason for this may be due to insufficient time for the client and therapist to build up the necessary therapeutic relationship to accomplish this kind of combination. It would seem reasonable that a client group with high levels of distressing psychosis symptoms may need longer than other client groups to build an alliance. If this is the case, one of the main clinical implications of this study would be to spend a longer period of time in the initial stages of therapy facilitating a relationship. This may have implications for considerations of length of therapy and what services can offer to clients. Often there are time pressures and limits on therapists' time, although it would be an important consideration in offering this client group specifically tailored interventions.

The present study recruited clients who were inpatients and since this may have meant clients were more unwell, suffering from more severe psychopathology, this would lend credence to the implication that clients may need longer compared to other client groups to build an alliance. This would have direct implications for services estimating the length of client inpatient admissions, especially when completing psychological therapy. There may also be length of admission implications for clients with psychosis who are admitted to hospital and the time it takes to build relationships with any staff on the pathway of recovery. Research has suggested that insecurely attached clients show lower levels of attachment to multiple members of staff and poorer engagement with services (Blackburn, Berry, & Cohen, 2010; Tait et al., 2004). It would be beneficial for services to train staff to be more explicitly aware of the importance of focusing on building up therapeutic relationships with clients.

Psychosis has a link with attachment patterns of behaviour and will influence the formation of therapy relationships and working alliance (Berry et al., 2007). However, since the current study did not find that the combination of client and therapist attachment styles predicted working alliance when clients had a diagnosis of psychosis, this would suggest further research is essential with this client group. Furthering our knowledge in this area will improve our understanding of therapy relationships for this client group and allow more specifically tailored interventions. It has been suggested that as well as the relationship other process elements of the therapy must been taken into account for the most effective treatment for this client group, such as a full understanding of the nature and development of psychosis and the use of specific therapeutic techniques that are easily measured (Hewitt & Coffey, 2005). Further research could expand investigations into these processes occurring in the therapeutic relationship.

Relationships between the concepts of attachment and working alliance in the therapy relationship have been outlined in previous research. However, it is important to consider the directions of interactions and other possible variables influencing the relationships. Therefore, another main implication of this study indicates further research taking into account other

possible influences on working alliance such as secondary diagnoses (Bachelor, Laverdiere, Meunier, & Gamache, 2010) and considering ratings of working alliance at different time points.

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Extended paper

Extended introduction

Note on terminology: For the purpose of this research terms used to consider therapeutic alliance have included terms such as 'therapeutic processes', 'working alliance' and 'therapeutic relationship'. Terms used to consider attachment styles have included terms such as 'attachment prototypes', 'attachment patterns', 'attachment organisations' and 'attachment behaviour'.

Attachment theory and styles

In developing the theory of attachment Bowlby (1969/1997, 1973/1998, 1980/1998) drew on research in ethology, cognitive and developmental psychology. Bowlby described attachment behaviour as a system which is inherently controlled by motivations based on evolutionary adaptations. The goal of the attachment system is to promote the safety and survival of a child through the relationship with an attachment figure (Holmes, 2001).

Attachment behaviour would be activated in context specific times of distress, danger or stress and would aim to reduce distress through proximity with the attachment figure (Holmes, 1993). The attachment system would be active at all times, monitoring the environment and availability of the attachment figure (Crowell, Fraley, & Shaver, 2008, Chapter 26). Attachment behaviour is also triggered by separation or threatened separation from the attachment figure, to attempt to restore proximity and prevent further separation (Holmes, 2001).

A central concept of attachment theory is the term given to the interaction between the child and caregiver, the 'secure-base phenomenon' (Ainsworth, Blehar, Waters, & Wall, 1978). The concept is related to the attachment figure providing a secure base for a child to explore their environment safe in the knowledge that they have the support of the attachment figure if needed (Holmes, 1993).

The last sixty years has seen a huge amount of research into child development confirming the emergence of attachment behaviour from early interactions (Holmes, 1993). This began with Ainsworth's initial observational studies (called the 'Strange Situation') of the mother and infant interaction which allowed the identification of three main attachment behaviours (Ainsworth et al., 1978). Children classified as 'secure' were able to use their parent as a secure base to explore their environment, they were distressed on separation but comforted on the parent's return. The caregiver's sensitivity and response to distress appears to be a significant factor in determining which attachment style a child will develop (Weinfield, Sroufe, Egeland, & Carlson, 2008, Chapter 4) as the child will modify their attachment behaviour based on their caregiver's behaviour, to try to achieve whatever approximation of security is possible in that relationship. Therefore, a securely attached child may expect their caregiver to act in a caring, reliable and responsive way allowing them to feel safe to explore their environment.

Children classified as insecure-avoidant ignored the parent and explored their environment and did not appear distressed by their parent leaving or comforted by their return (Ainsworth et al., 1978). An insecurely avoidant attached child would learn that their emotions are consistently ineffective at eliciting a contingent response from the caregiver. In this case the child would begin to reduce distress by inhibiting negative emotions, which could include becoming self-reliant and denying attachment needs.

Children classified as insecure-ambivalent were unable to explore and appeared focused on their parent, they were very distressed on separation but could not be comforted when the parent returned (Ainsworth et al., 1978). When a child is attached in an insecure ambivalent way the caregiver is experienced as inconsistent and the child learns to reduce their distress by exaggerating negative emotions and perhaps becoming overly dependent to gain a response from their caregiver. A fourth attachment style was later added by Main and colleagues in 1986 (Hesse & Main, 2000); insecure disorganised where children may show features of the other main attachment styles but in no structured pattern. These initial observations of attachment behaviour have formed the basis for future

methods of measuring attachment styles (Solomon & George, 2008, Chapter 18).

Attachment patterns develop from the parent and child interaction and therefore begin as relationship specific (Steele, Steele, & Fonagy, 1996). However, due to the formation of internal working models, which are mental representations of attachment relationships based on repeated patterns of interactive experience, attachment patterns become a property of an individual and act as a template for future adult close and social relationships (Bowlby, 1988; Furman & Simon, 2004). This is considered to be due to individuals attending, interpreting and behaving in a way that confirms current representations and expectations of how others will behave (Pietromonaco & Feldman Barrett, 2000). Working models are hypothesised to guide attention, memory, appraisal and predictions about future interpersonal adult relationships across the life span (Cassidy, 2008, Chapter 1).

Attachment theory has suggested that disruptions in attachment can be seen as influencing adult mental health (Goodwin, 2003) and could act as risk factors for psychiatric symptoms (Berry, Barrowclough, & Weardon, 2007). This could happen through the breaking or disruptions of bonds which could cause disturbance and internalising this early experience may influence later relationships which could lead to an individual being more exposed to stress and more vulnerable to stress (Holmes, 1993). Also, an individual's current perception and use of relationships may lead to vulnerability to experience mental health difficulties, especially when under pressure (Holmes, 1993).

Many of the attachment theory hypotheses have been supported empirically (Meyer & Pilkonis, 2002, Chapter 20), for example, there is evidence for the idea that individuals are inherently motivated to form lasting bonds of affection (Baumeister & Leary, 1995). There is also evidence that attachment styles can be reliably distinguished across cultures (van Ijzendoorn & Sagi-Schwartz, 2008, Chapter 37). However, attachment theory has been criticised for focusing on measures of autonomy and exploration that are biased towards western ways of

thinking and do not take into account differences in culture (Rothbaum, Weiz, Pott, Miyake, & Morelli, 2000).

Theoretical aspects of attachment theory have also been criticised with the argument that the concept of attachment is essentially a form of relating and can therefore be seen as a part of interpersonal theory (Birtchnell, 1997). A main concept of interpersonal theory relates to the idea that an individual's personality develops through interpersonal interactions and processes (Bernier & Dozier, 2002). Cook (2000) extended the argument that attachment theory can be seen as part of interpersonal theory by considering that the interpersonal aspects of relating should be emphasised as sources of attachment security compared to internal cognitive working models.

Cook (2000) conducted a social relations model analysis to examine this idea and found that attachment security was related to specific interpersonal processes. Cook (2000) concluded that working models may not be so 'internal' and could be more dependent on social processes, supporting the idea that attachment can be seen as part of interpersonal theory. However, it is not a surprise that attachment security is related to interpersonal processes given the nature of the attachment theory. It is possible attachment security can be associated with interpersonal processes as well as being influenced by internal working models. Interpersonal theory does not appear to explain the inherent drives and motivations described in attachment theory, which are evident based on observation of the development of attachment patterns (Ainsworth et al., 1978). This would suggest that interpersonal theory cannot account fully for attachment theory.

Measurement of attachment style

There are two main methods of measuring attachment: narrative analysis and self-report measures. This is an important aspect to consider as these methods differ in how they view the content and structure of attachment styles, although both consider that working models developed in childhood influence interpersonal interactions in adulthood. Different measures have

been developed by independent researchers from different professional backgrounds, meaning that although there are many assessments inspired by attachment theory they have developed along different lines and there is confusion about what they measure, what they are supposed to measure and how they are related to one another. Roisman et al. (2007) found that the different kinds of measures do not converge empirically even though they may correlate in a similar way with outcome variables. Therefore, not all measures can be used interchangeably in studies and researchers need to be clear about what aspect of attachment they want to measure when choosing attachment measures.

Narrative measurement of attachment

Narrative analysis of attachment relies on a coherent narrative of previous childhood experiences to assess unconscious aspects of attachment. The main example of a narrative measurement of attachment is the Adult Attachment Interview (AAI) developed by Main and colleagues following a six year follow up study of the children who had taken part in Ainsworth et al.'s (1978) original 'Strange Situation' observations (Main, Kaplan, & Cassidy, 1985 as cited in Goodwin, 2003). The AAI is a semi-structured interview aimed to assess the security of adults' overall working model of attachment, through assessing the manner in which an individual speaks about their past attachment experiences rather than the content. For example, it takes into account any major contradictions and inconsistencies, passages that are short, long or difficult to follow and differences in the use of language relevant to attachment (Hesse, 2008, Chapter 25).

The AAI takes about an hour to administer, consists of 20 questions and extensive training is required to administer the interview, score and classify transcripts. The full exchange of interview is recorded including language, silences and dysfluencies; tone, body language or facial expressions are not. From this information AAI coders can predict how speakers will behave with others including their own children, partners and friends. Scoring assigns individuals to one of three main classification; secure (autonomous) or insecure which could be either dismissing (avoidant) or preoccupied (ambivalent). Individuals can also be classified

as unresolved (disorganised) as well as being assigned to one of the main three classifications. These four categories parallel Ainsworth et al.'s (1978) original attachment patterns.

The original scoring system for the AAI was developed by the AAI's authors, although alternative methods of scoring have been derived. One such alternative method is Kobak's Q-Sort Scoring System (Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993). It is based on the original system but yields scores for two dimensions; one is level of security-insecurity and the other is deactivation (dismissing)-hyperactivation (preoccupied). It can still classify individuals into categories of the original system, with approximately 80% receiving the same classification as the original system (Crowell et al., 2008, Chapter 26).

Research has demonstrated high stability of attachment classifications, especially secure attachments, across time periods of up to six years using the original scoring system (kappa = .73; Crowell, Treboux, & Waters, 2002). Research has also reported stability using different interviewers and over specific time periods meaning that category assignment could not be attributed to the interviewer (Sagi et al., 1994). In a meta-analysis based on longitudinal data stability of attachment was considered from childhood assessed by the Strange Situation to adulthood as assessed by the AAI (Fraley, 2002). Results indicated that attachment styles were moderately stable especially in the first 19 years of life and continued to influence attachment behaviour throughout life, especially under stable life circumstances (Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). However, Waters, Hamilton, and Weinfield (2000) found that attachment classifications were less stable within clinical populations.

Discriminant validity of the AAI has been investigated as the ability to speak coherently about attachment could be based on other factors unrelated to attachment, such as memory or intelligence. Research found that AAI categories were independent of attachment related memory, social desirability (Bakermans-Kranenburg & van Ijzendoorn, 1993) and intelligence; including assessments specific to verbal fluency (van

Ijzendoorn, 1995). Security was not associated with discourse style on an unrelated topic (Crowell at al., 2008, Chapter 26), indicating that the attachment related content of the AAI does influence linguistic form. However, these findings do not take into account the variation in verbal coherence of individuals' with psychiatric disorders such as psychosis. Individuals with diagnoses which may include traumatic histories could lead to differences in coherence not accounted for by difference in attachment style. Indeed van Ijzendoorn and Bakermans-Kranenburg (1996) reported that the unresolved category is overrepresented in clinical samples and there has been a move to expand the AAI to include trauma related discourse variations (Lyons-Ruth & Jacobvitz, 2008, Chapter 28). Furthermore, it has also been found that individuals with current psychopathology symptoms describe their past relationships differently leading to a bias in the classification they are assigned to (Roisman, Fortuna, & Holland, 2006).

Self-report measurement of attachment

Self-report instruments measure attachment styles based on conscious, current close or romantic relationships and tend to be heterogeneous in focus and method. Although Fraley (2002) found that attachment styles were moderately stable especially in the first 19 years of life and continued to influence attachment behaviour throughout life, Bowlby's ideas (1997, 1998) acknowledged that attachment working models could be modified if an event occurred that challenged current representations. This suggests that measuring attachment styles by looking back at past relationships may be less valid (Daniel, 2006). Another important factor to consider when measuring current relationships is that although Bowlby (1997, 1998) hypothesised that there is little difference in the nature of the attachment relationship from infancy to adulthood, the adult-adult attachment behavioural system works reciprocally. Adults shift between the role of caregiver and attached individual adding complexity to the measurement of adult attachment.

Hazan and Shaver (1987, 1990) developed romantic attachment styles based on Ainsworth et al.'s (1978) original three attachment patterns by developing three descriptions for each attachment style. Individuals were

asked to rate which description best captured the way they generally behaved and experienced others in romantic relationships. This measurement was useful because of its brevity, face validity and ease of administration. However, limitations were also recognised (Collins & Read, 1990). As a forced choice categorical measure there is an inability to reflect individual variation in attachment which assumes that variation is not important or does not exist. Also it was suggested that there was instability in the measure and changes in classification in measures of test-retest stability were not due to true changes in attachment security (Crowell et al., 2008, Chapter 26).

To address these issues self-report measures have progressed to considering attachment styles on continuous scale dimensions, rather than categorically. Collins and Read (1990) developed the three original descriptions developed by Hazan and Shaver (1987, 1990) into separate items that could be measured on Likert response scales. A number of further attachment assessments were developed and among these Bartholomew (1990) proposed a model which yielded four attachment prototypes; secure, preoccupied, dismissing and fearful. The model also conceptualised two dimensions of attachment; avoidance and anxiety, with higher scores indicating insecure attachment and lower scores indicating secure attachment (see Figure 2 below).

Figure 2. Bartholomew's (1990) model of attachment prototypes. The model also shows how the prototypes can be conceptualised as the dimensions of anxiety and avoidance. The figure was adapted from Berry et al. (2007).

<div align="center">Anxiety
(Model of self)</div>

	Positive (low)	Negative (high)
Positive (low) **Avoidance (Model of others)** **Negative (high)**	**Secure** High self-worth, believes that others responsive, comfortable with autonomy and in forming close relationships with others.	**Preoccupied** A sense of self-worth that is dependent on gaining the approval and acceptance of others.
	Dismissing Overt positive self-view, denies feeling of subjective distress and dismisses the importance of close relationships.	**Fearful** Negative self-view, lack of trust in others, subsequent apprehension about close relationships and high level of distress.

Fraley and Spieker (2003) demonstrated that the dimensional aspect of Bartholomew's model can reflect Ainsworth et al.'s (1978) original three attachment categories as they found that individual differences in attachment patterns are more consistent with a continuous as opposed to categorical model. Also the two dimensions of the model can be viewed as 45-degree rotations of Kobak's security-insecurity and deactivation (dismissing)-hyperactivation (preoccupied) dimensional scoring for the AAI, providing a parallel between narrative and self-report measures (Kobak et al., 1993). Based on Bartholomew's (1990) model, Bartholomew and Horowitz (1991) developed the Relationship Questionnaire (RQ) and the Relationship Scales Questionnaire (RSQ), both short assessments outlining descriptions of each of the four types of attachment. A factor analysis was completed based on measures of Bartholomew's (1990) model which suggested a two-factor structure: attachment anxiety and avoidance. This confirmed that a two-factor structure model was optimum

for attachment self-report data and supported similar findings (Kurdek, 2002; MacBeth, Schwannauer, & Gumley, 2008).

Attachment, psychosis and inpatients

Attachment theory has had a significant impact on understanding the nature of human relationships (Cassidy, 2008, Chapter 1). Therefore, it can also be important in improving our understanding of individuals with psychosis, given that psychosocial models of psychosis highlight the importance of negative beliefs about the social world in terms of vulnerability and maintenance (Penn, Corrigan, Bentall, Racenstein, & Newman, 1997). Past interpersonal relationships and traumas have been hypothesised to increase susceptibility to negative symptoms and beliefs (Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001). Due to the likelihood of high levels of distress for individuals with psychosis it is likely that attachments systems are in operation and guiding help seeking behaviour (Berry, Barrowclough, & Weardon, 2008). However, although there are strong links between attachment organisation and psychopathology the relevance between attachment and psychosis has only recently begun to be explored. Berry et al. (2007) proposed that attachment theory could enhance understanding of psychosis by allowing more specific hypotheses to be generated about the role and predictors of interpersonal relationships in the development and course of psychosis. Research has reported that attachment styles are just as stable for individuals with psychosis as the general population (Berry et al., 2008).

The majority of research in this area has been carried out by researchers using the AAI and Kobak's Q-Sort Scoring System (Kobak et al., 1993). Findings have indicated that individuals with a diagnosis of schizophrenia have higher levels of insecure attachment, especially avoidant attachment, compared to affective diagnoses (Dozier, Stevenson, Lee, & Velligan, 1991; Mickelson, Kessler, & Shaver, 1997). Research has demonstrated that insecure attachment styles can predict specific symptoms of psychosis such as the emergence of paranoia and a predisposition to developing hallucinations (MacBeth et al., 2008).

Attachment styles and interpersonal functioning in psychosis

Research conducted longitudinally found difficulties in interpersonal functioning such as isolation, communication problems and problems in peer relationships predispose individuals to the development of psychosis (Mason et al., 2004). There is also evidence that social competence leads to improved outcomes for individuals with psychosis (Penn et al., 1997). The framework of attachment theory could further inform our understanding of interpersonal relationships for individuals with psychosis. For example, attachment styles could provide useful ways to understand engagement with services (Berry et al., 2008). Researchers have found that attachment insecurity is associated with poorer engagement with services in a sample with psychosis (Tait, Birchwood, & Trower, 2004).

Attachment style and trauma in psychosis

There is evidence linking interpersonal trauma, experienced either in childhood or adulthood, to psychosis demonstrated by high levels of traumatic events compared to the general population (Mueser et al., 1998). Experiences of traumatic events are associated with insecure attachment styles (Waters et al., 2000). Traumatic events are correlated with poorer outcomes in psychosis including increased symptom severity (Mueser et al., 1998). A link has been demonstrated between anxious attachment, interpersonal trauma and symptoms of post-traumatic stress disorder in a sample with psychosis (PTSD; Picken, Berry, Tarrier, & Barrowclough, 2010).

Inpatients

Studies investigating attachment and psychosis have mainly focused on community samples (Dozier, Cue, & Barnett, 1994; Tyrell, Dozier, Teague, & Fallot, 1999). Therefore, it was decided to recruit inpatients to take part in the current study to examine whether the research base could be extended. Institutions can be seen as secure and consistent environments for individuals who may not have experienced this previously, even to the extent that they can act as attachment figures for clients (Adshead, 1998). However, on the other hand they can also be seen as frightening places stimulating attachment behaviour to reduce distress clients may be experiencing; which could be in relation to the atmosphere, other clients

and compounded by clients' own symptoms. Holmes (1993) considered that whether an institution is seen as 'good' or 'bad' depends on a client's individual experience.

Research on individual psychotherapy has not focused on more specific and specialist services and hospital based inpatient health care has not been a focus of study, although attachment theory can have a significant role to play within facilitating a therapeutic environment in institutions (Adshead, 1998). Goodwin (2003) argued that although in reality political and economic considerations drive the development of services, the provision of a secure and caring environment is still essential in allowing individuals the chance to build trusting relationships and provide a starting point for individual therapy. Starkey and Flannery (1997) proposed a model for psychiatric rehabilitation for individuals with schizophrenia and emphasised the importance of attachment theory in service development. Indeed it appears that inpatient services are beginning to make use of aspects of attachment theory without explicitly stating or perhaps realising it. For example, within the concept of continuity of care an individual is allocated a 'keyworker' whose role is to build a close and continuing relationship with a client and be available consistently for them. This demonstrates some awareness of the importance of safe consistent relationships.

Psychotherapy processes and outcomes

Since the current study is concerned with attachment relationships within therapy it is important to consider psychotherapy processes and difficulties related to evaluating outcomes. Processes refer to what happens in psychotherapy sessions and outcomes relate to immediate or long-term changes as a result of therapy. These constructs are not necessarily distinct from one another, as changes in process can also be indicators of outcome (Hill & Lambert, 2004, Chapter 4). Therefore, psychotherapy processes and outcomes will be considered here as linked, with processes influencing outcomes. Before discussing these constructs further it is important to acknowledge the impact of individuals' wider environment and context on completing psychotherapy. When an individual's difficulties are

the result of social upheaval such as war, famine or economic crisis, social injustice, poverty or political oppression, psychotherapy has little to offer compared to the need to address basic survival needs.

The development and expansion of psychological treatment has grown rapidly and there appears to be a limitless number of psychological therapies (Garfield, 1998). Methodological issues in process and outcome research include considering the importance of the focus and perspective of the evaluation, the choice of measures including their reliability and validity and how to collect the data (Hill & Lambert, 2004, Chapter 4). Reviews of psychotherapy outcome research document evidence supporting the effectiveness of therapy, including gains being maintained over time and when only a small number of sessions (8-10) have been completed (Asay & Lambert, 1999, Chapter 2).

Research has attempted to compare different therapies to consider what determines positive outcomes and in particular which interventions and models might be effective for specific disorders. Meta-analyses have generally reported a strong trend towards different psychotherapies producing similar beneficial effects (Cuijpers, van Straten, Andersson, & van Oppen, 2008; Wampold et al., 1997). This could be due to a number of reasons including: therapies reaching similar goals through different processes, research methodologies not being able to detect differences that may exist between therapies, or there may be process factors which are common to different therapies (Lambert & Ogles, 2004, Chapter 5). However, it is important to acknowledge that some studies have reported superiority for particular therapies in certain conditions, such as cognitive and behaviour therapies for depressive disorders (including when adjusting for investigator allegiance; Gaffran, Tsaousis, & Kemp-Wheeler, 1995).

As part of evaluating psychotherapy outcomes it is important to consider difficulties in comparison due to research methods. It has not always been straight forward to evaluate psychotherapy since agreed objective outcome measures have been much less clear in this field, compared to a field such as medicine (Lawrence, 2007, Chapter 4). Perhaps this is why

therapies such as cognitive behavioural therapy (CBT), which is more easily measured in terms of outcomes, has been widely researched and has built up a body of research data indicating successful outcomes. In evaluating psychotherapy varied definitions of success have been used, misleading conclusions have been drawn due to using only simple indicators of change, operational definitions of success were not always used and comparable measurement techniques were not consistently used (Hill & Lambert, 2004 Chapter 4). This lack of standardised practice and the large number of different outcome measures used across studies has made comparisons between studies more difficult.

Research has focused on common factors and considering the active ingredients of psychotherapy as one way of explaining psychotherapies producing similar effects. Evidence has supported the influence of common or extratherapeutic factors as having the largest impact on psychotherapy outcomes (Miller, Duncan, & Hubble, 2005, Chapter 4; Wampold, 2001). These common factors can include client variables such as severity of clients' difficulties, motivation, capacity to relate, expectations of therapy, personality style and psychological mindedness (Asay & Lambert, 1999, Chapter 2). The influence clients have over the benefits of therapy are a potential limitation of psychotherapy as it is not something that can be done to someone. Clients' cooperation and a willingness to change are necessary to an extent, although there may be some flexibility for therapists to encourage clients to make use of the benefits of psychotherapy. There is also the finding that a number of clients improve without therapeutic intervention and although this rate would not exceed the beneficial effects of therapy, it may suggest a common factor of a supportive and therapeutic environment (Wampold, 2001). Psychotherapy would aim to provide this kind of environment, although it may occur naturally in an individual's life.

The finding that a number of clients improve without therapeutic intervention links to the placebo effect in client change. The role of the placebo effect in psychotherapy has been a focus when research has been interested in comparing particular therapies to no treatment groups or placebo treatment groups. Meta-analyses have reported that therapy is

most effective, followed by the placebo group and then the no treatment group (Grissom, 1996; Wampold, 2001). It has been suggested that the placebo concept is not conceptually consistent with assessing the efficacy of psychological interventions (Lambert & Ogles, 2004, Chapter 5) and the ethics of using placebo controls has been questioned (Asay & Lambert, 1999, Chapter 2). However, the placebo treatment was more effective that the no treatment group which could be explained by considering that a placebo may represent other common process factors of psychotherapy such as expectation of improvement; although, the placebo effect could also be seen as a common factor in itself.

Another important common process factor to consider is the therapist variable. There is likely to be a range of skill, experience and natural ability between therapists which will influence the delivery of psychotherapy. Evidence has demonstrated the importance of the contribution of therapists to psychotherapeutic outcomes (Baldwin, Wampold, & Imel, 2007; Crits-Christoph & Mintz, 1991; Wampold & Brown, 2007). Specific therapist factors could include therapist age, gender, experience, and professional training, although there could also be less well defined therapist factors, including a combination of factors. If studies do not take the therapist factor into account differences reported between treatments may actually be accounted for by therapist differences. Less effective therapists could mean a limitation in the effectiveness of psychotherapy.

One of the most frequently studied common process factors is the therapeutic relationship between therapist and client. Successful therapeutic outcomes have been demonstrated from strong collaborative relationships independent of psychological approach (Martin, Garske, & Davis, 2000). The relationship between therapists and clients will be discussed in the next section (Working alliance conceptualisations).

Process and outcome research presents a complex picture which outlines that effective psychotherapy is more than a specific set of interventions but also more than a collection of common process factors. Therapist and client variables are relevant as well as the therapeutic relationship between them. Even though there is a large body of research focusing on

the process and outcomes in psychotherapy comparable measurement techniques, outcome measures and research design would bring about more rapid increases in knowledge about effective treatments.

Working alliance conceptualisations

Over the last four decades there has been a growth of interest in the concept of alliance within research and clinical practice. One reason for this could relate to the evidence that different psychotherapies produce overall beneficial effects (Wampold et al., 1997), which has meant more focus on factors that are common to different therapies. Therefore, the concept of alliance has been useful to researchers attempting to integrate different theoretical models and to provide an integrated framework for therapy (Castonguay, 2000).

The concept of therapeutic alliance originally developed within a psychodynamic tradition (Smith, Msetfi, & Golding, 2010; Horvath & Luborsky, 1993) which suggested that the therapeutic relationship is affected by clients' unconscious, interpersonal schemas, which may be brought to the surface during therapy (Gelso & Carter, 1994). This could include the interaction of transference and countertransference between the client and therapist which can produce negative or positive feelings based on how they are evoked; which could lead to reactions negatively impacting on the therapy process (Kiesler, 2001). Countertransference from the therapist has been hypothesised as negatively affecting working alliance, for example by interfering with the aspect of goal attainment or emotional bond development (Ligiero & Gelso, 2002).

The psychodynamic approach to therapeutic alliance created debate about specific conceptual elements such as whether alliance and transference were two distinct constructs or whether the therapist and client relationship could be seen as manifestations of the transference neurosis (Gelso & Carter, 1994; Horvath & Luborsky, 1993). The practical issue related to this debate was whether the alliance was the consequence of the two individuals in the therapy relationship or whether it was predestined based on the client's unconscious projections of past

experiences and the degree to which past relationships may influence the therapy relationship. If countertransference is a factor of the therapy relationship it could be seen as a therapist variable and constant across relationships or it could be viewed as dependent on the presentation of a specific client.

The client centred concept of the therapeutic relationship added to the psychodynamic conceptualisation of therapeutic alliance and considered the therapist's ability to be empathic, congruent and unconditionally accepting of the client as essential conditions for therapeutic gain (Rogers, 1957). Therapists with high levels of these conditions were reported to be more successful than those who did not, although this understanding has been criticised for a lack of theoretical complexity which has lessened the impact of the client centred model (Horvath & Bedi, 2002, Chapter 3).

Bordin (1979) further developed the conceptualisation of therapeutic alliance by naming it working alliance and explaining the concept as the achievement of collaboration in therapy between the client and therapist. This collaborative stance was developed by three processes; agreement on the goals in therapy, cooperation on the tasks in therapy and the emotional bond between the therapist and client. Bordin's (1979) theory suggested that building a therapeutic alliance is key for therapeutic change and therapist and client should attend to any ruptures which may affect the alliance. Attending to these ruptures would make important contributions to clients' positive therapy outcomes.

This conceptualisation of working alliance emphasised the importance of conscious collaboration and agreement, compared to previous models which focused on just therapist contributions or unconscious aspects of the relationship. However, Bordin's (1979) conceptualisation still did not offer a precise definition of therapy alliance. This has made it easier for researchers and clinicians from various theoretical backgrounds to make use of the term within the therapy process. It has also meant that many measures have been developed without a common definition leading to alliance being defined by the different assessments used to measure it (Elvins & Green, 2008).

Measurement of working alliance

Researchers have conceptualised alliance differently (outlined in the above section) and there are many different measures which assess aspects of alliance. This has led to a call for clarity in the conceptualisation of working alliance to provide an integrative definition (Elvins & Green, 2008), allowing empirical studies to be compared more readily. However, research comparing working alliance and therapy outcomes has reported an association regardless of the type of alliance measure used (Horvath, Del Re, Flückiger, & Symmonds, 2011). The lack of clarity in definition is more likely to impact on studies examining specific factors that may influence alliance.

Ratings of alliance can be gathered from three sources: the client, therapist and an informant. The therapist and client ratings will be based on their own viewpoint and experience of the therapy relationship, while the informant rating will be based on behavioural observations making it more distinct and objective. It is important to consider that if therapists or clients rate therapeutic alliance and therapy outcomes this may introduce bias into the ratings, as a positive view of the alliance may lead to a positive view of therapy outcomes. If independent observations are used alone they may miss important subjective attitudes that are involved within the relationship. Client rated alliance was found to be similar to that of the informant rating in relation to outcome, while therapist rated alliance was less related to outcome (Horvath & Bedi, 2002, Chapter 3). However, it has been reported that therapist assessment of alliance becomes a better predictor of outcome in the later stages of therapy (Kivlighan & Shaughnessy, 1995).

Some alliance scales are developed for specific investigations and other scales measure a specific concept that is thought to be related to alliance. Both these types of measurements add little to the understanding of alliance (Horvath & Bedi, 2002, Chapter 3). The Working Alliance Inventory (WAI) has been developed to measure the aspects of goal, task and bond (Horvath & Greenberg, 1989) based on Bordin's (1979)

conceptualisation. The WAI is a 36-item self-report measure consisting of three subscales (12 items each) that correspond to Bordin's (1979) concepts of goals, tasks and bonds. A 7 point Likert scale is used to rate level of agreement and disagreement for each item. Scores for each of the three subscales can be derived as well as an overall global score. Parallel forms are available for both the client and therapist. This measure has become the most widely used in alliance research (Martin et al., 2000). Elvins and Green (2008) reviewed measurements of therapeutic alliance and reported the WAI as being one of the most successful in addressing conceptual issues.

Factor analyses of the most popular measures of alliance including the WAI, found that personal bond, energetic involvement in treatment and collaboration on the direction and substance of treatment are each represented in the measures (Hatcher & Barends, 1996). However, while these elements are recognised in different assessments of alliance, each measure gives different weight to the elements and also varies in other aspects of the alliance that it measures.

Factors influencing working alliance

There is a consistent finding that there is a moderate but robust relationship between working alliance and intervention outcome across a wide variety of types of therapy and specific client problems (Horvath & Bedi, 2002, Chapter 3; Horvath & Symmonds, 1991; Martin et al., 2000). However, there are also other variables which may contribute to the alliance. For example, alliance measured at different time points in therapy can influence outcomes. Evidence seems to suggest that a good alliance early in therapy can predict outcomes (Horvath & Symmonds, 1991) although this is not consistent, with some evidence that early positive alliance has predicted drop-out rates (Tryon & Kane, 1993). A high-low-high pattern of alliance through therapy has been proposed (Gelso & Carter, 1994), although again evidence for this pattern has been mixed (Kivlighan & Shaughnessy, 1995, 2000).

Other variables influencing alliance may include factors related to the client and therapist. There has been less research into specific factors that

influence alliance in therapy compared to studies examining the overall outcome and alliance. Relatively more is known about the characteristics of clients than therapists that contribute to working alliance (Dunkle & Friedlander, 1996). Findings related to the severity of clients' difficulties and alliance are mixed; with some studies reporting that more severely disturbed clients have poorer alliances (Zuroff et al., 2000) and some indicating that there was no relationship (Joyce & Piper, 1998). This could be due to there being less research with severely disturbed clients as they may be less likely to take part in research and more likely to drop out of therapy in the early stages (Tryon & Kane, 1993). In terms of specific diagnoses, it has been reported that for clients with personality disorders building up a working alliance is especially relevant to improved outcomes compared to clients with other diagnoses (Andreoli et al., 1993).

Client characteristics have been found to be predictive of poor working alliance, including: expressed hostility and poor quality of past and current interpersonal relationships (Kokotovic & Tracey, 1990). Clients who developed weak or negative working alliances had difficulties maintaining social relationships (Mallinckrodt, 1991). However, it appears that these client characteristics could be included under the behavioural expression of an individual's attachment style (addressed in the next section below) and therefore, may not need to be considered as separate variables impacting on working alliance.

Therapist factors contributing to the alliance include their ability to respond to the client in a sensitive manner and ability to respond to challenges and possible ruptures in therapy (Safran, Muran, Samstag, & Stevens, 2002, Chapter 12). Openness, clear communication, exploration and empathy from the therapist have also been found to be important for the quality of alliance (Priebe & Gruyters, 1993; Zuroff et al., 2000). Although, in relation to empathy, this may be experienced differently by clients and therapists must be able to be flexible in their approach depending on the individual client (Bohart, Elliott, Greenberg, & Watson, 2002, Chapter 5).

The amount of therapists' therapeutic experience has been found to influence working alliance (Mallinckrodt & Nelson, 1991). However, Dunkle

and Friedlander (1996) found no relationship between therapist experience and client rated working alliance. Therapist experience and client rated working alliance was investigated further and results demonstrated that when clients had difficulties forming relationships, therapist experience was positively related to working alliance (Kivlighan, Patton, & Foote, 1998). Therapist age did not moderate this result, although when measuring experience researchers used different methods to define experience (Kivlighan et al., 1998). Research by Daly and Mallinckrodt (2009) also demonstrated that experienced therapists were able to be flexible and vary their therapeutic approach based on clients' difficulties.

Therapist therapeutic orientation predicted ratings of alliance quality, with cognitive behavioural therapists showing the highest self-rated alliance score (Black, Hardy, Turpin, & Parry, 2005). Session depth and smoothness have been found to be related to client engagement in sessions (Tryon, 1990). Session reflection has been found to be an important aspect of therapeutic process (Diamond, Stovall-McClough, Clarkin, & Levy, 2003).

A main element of the therapeutic relationship that both the client and therapist bring to the interaction is the active representations of past relationships in the form of attachment styles. Therefore, the alliance and attachment styles can provide a model of what common factors make up the therapeutic relationship (Horvath & Bedi, 2002, Chapter 3) and will be discussed below.

Client attachment and the therapeutic alliance

There are similarities between the role of an attachment figure and the role of a therapist (Farber, Lippert, & Nevas, 1995). The therapist provides the client with a safe environment to be able to explore their difficulties and relationships in the context of meeting their therapeutic goals. However, clients' working model and attachment styles will mediate how they respond to the therapist and so impact on the quality and development of the therapeutic alliance (Bowlby, 1988). From the client, therapist and

observer perspectives of the alliance client perspectives are the most predictive of therapeutic success (Horvath & Symonds, 1991).

When a therapist or adult relationship provides an individual with a safe and secure environment which is in contrast to what they have experienced it has been hypothesised that this may challenge their current working model. This could allow the individual to develop more adaptive attachment behaviour leading to positive therapeutic change (Tyrell et al., 1999). As working models tend to be quite stable this may or may not lead to a full representational change in an individual's original model of attachment (Crowell et al., 2008, Chapter 26). Diamond et al. (2003) reported shifts in attachment pattern for hospitalised clients after a year of treatment. In a sample of 10 clients, more than half moved from a disorganised/unresolved attachment status to an organised insecure or secure attachment style (Diamond et al., 2003). Levy et al. (2006) found that a year of transference-focused psychotherapy led to a significant increase in clients classed as secure in attachment and narrative coherence; reflective functioning also improved significantly. However, Slade (2008, Chapter 32) pointed out that attachment patterns may be surface level manifestations of much deeper structures that are unlikely to be easily changed and the Diamond et al. (2003) study demonstrated there may only be a shift within the insecure organisations. Therefore, it is not known whether a change of attachment status would lead to symptom remission, behavioural changes and overall structural change in individuals' working models.

Results investigating client attachment styles and working alliance have found that secure client attachment styles predicted a better therapeutic alliance between therapist and client (Satterfield & Lyddon, 1995). Mallinckrodt, Gantt, and Coble (1995) found that client comfort with intimacy correlated positively with alliance and fear of abandonment correlated negatively with alliance. Kivlighan et al. (1998) found that ability to depend on others and comfort with intimacy was correlated with stronger therapeutic alliance (Collins & Read, 1990). However, Kanninen, Salo, and Punamäki (2000) found no differences between secure, dismissing and preoccupied attachment styles and working alliance.

Although, when Kanninen et al. (2000) considered working alliance ratings over time they found a high-low-high pattern of positive working alliance over time in therapy relationships with secure and preoccupied individuals.

In a systematic review Smith et al. (2010) found clients who rated themselves as having a secure attachment also rated the alliance as stronger. If clients rated themselves as less secure they formed weaker alliances. However, Smith et al. (2010) also found that insecure attachment patterns were not linked therapeutic alliance. Sauer, Lopez, and Gormley (2003) examined client and therapist attachment patterns and their impact on working alliance over three time points. Sauer et al. (2003) found that client avoidance and anxiety had no effect on working alliance (rated by both client and therapists). However, the study did not gather any information on the pathology of the clients and presenting complaints. They had a sample of 28 clients, 11 of which terminated their participation before the seventh session rating. Sauer et al. (2003) acknowledged that their findings did not have generalisability due to clients and therapists not being a representative population and therapists also used different treatment methods.

Client insecure attachment styles (avoidant and fearful) have been associated with negative ratings of working alliance and session smoothness, and clients with preoccupied attachment styles were associated with lower client perceived session depth (Romano, Fitzpatrick, & Janzen, 2008). Avoidant and fearful client attachment styles have been negatively related to ratings of the real relationship (Fuertes et al., 2007). The real relationship has been associated with how much the therapeutic relationship can be seen as realistic and genuine (Gelso, 2002).

Within the insecure attachment styles it has appeared that clients with dismissing attachment styles are likely to do better in therapy (assessed mainly using symptom severity questionnaires) than clients with preoccupied or unresolved attachment styles (Fonagy et al., 1996). Fonagy et al. (1996) explained this finding as perhaps being due to it being easier to draw clients' with dismissing attachment styles attention to previously avoided emotional experiences, compared to suggesting

alternative perspectives to clients with preoccupied attachment styles, who are likely to already have strongly formed opinions in terms of their feelings about past experiences. Furthermore, Slade (2008, Chapter 32) pointed out that clients with preoccupied attachment styles are often more overtly disturbed than clients with dismissing attachment styles which can mean they can be less likely to achieve positive outcomes. This assumption was based on evidence which suggested that clients with borderline personality disorders are more likely to be preoccupied or unresolved with regard to attachment status (Westen, Nakash, Thomas, & Bradley, 2006); and building a therapeutic relationship with this client group has been described as being especially challenging (Bateman & Fonagy, 2004; Slade, 2008, Chapter 32).

It is possible that type of therapy could influence client attachment styles and working alliance. It has been suggested that specific types of therapy may fit with addressing particular attachment patterns (Daniel, 2006). For example, clients with more preoccupied attachment patterns may benefit from approaches which improve coping skills for emotional distress, whereas clients with more dismissing strategies may benefit from interventions which focus on emotional reactions. Preoccupied clients may do better with cognitive behavioural therapy (CBT; Daniel, 2006) and psychodynamic therapy may be more effective for dismissing clients (Fonagy et al., 1996).

Gender has also been found to influence client attachment styles and therapeutic alliance. In an inpatient sample with diagnoses of psychosis, securely and preoccupied attached women have been found to form stronger emotional bond alliances than fearful and dismissing attachment styles (Hietanen & Punamäki, 2006). Securely and fearfully attached men were found to have better agreement on the tasks of therapy, although these results with men and women were only found in same sex attachment classifications (Hietanen & Punamäki, 2006). Men were found to have significantly higher attachment avoidance scores than women in a sample of clients with psychosis (Berry et al., 2008).

Overall, results appear to indicate that secure attachment is linked to formation of positive therapeutic alliance (Daniel, 2006) and insecure attachment styles are linked to lower client ratings of working alliance and other therapy process ratings. These findings also appeared to be present across different client populations and from different raters of the measurements (clients, therapists and researchers). The research has indicated important directions for future research in exploring working alliance over time. Due to the importance of client attachment style in the formation of working alliance Shorey and Snyder (2006) advocated therapists' awareness of their clients attachment patterns and suggested attachment assessments as standard for clients starting therapy. Smith et al. (2010) suggested using an alliance measure in therapy as the relationship between attachment and alliance may be mediated by clients' specific presenting attachment behaviours (Janzen, Fitzpatrick, & Drapeau, 2008) and also pointed out the possible impact of therapist attachment style on therapy alliance.

Therapist attachment and the therapeutic alliance

There is less research on the impact of therapist attachment styles on therapeutic alliance and results have been more mixed than client attachment style ratings. Therapists comfortable with closeness in interpersonal relationships (equivalent to a secure attachment style) predicted higher client ratings on the emotional bond of alliance (Dunkle & Friedlander, 1996). Berry et al. (2008) found that lower staff anxiety and avoidance attachment styles were associated with more positive therapeutic relationships. Therapist secure attachment style and affiliative introject style were associated with more session depth, smoothness and a better working alliance rating (Bruck, Winston, Aderholt, & Muran, 2006).

Preoccupied therapist attachment styles were associated with less empathy and lower client rated progress (Fuertes et al., 2007; Rubino, Barker, Roth, & Fearon, 2000). However, in one study therapist preoccupied attachment style was also associated with intervention depth (Dozier et al., 1994). In another study therapist preoccupied attachment style had a positive effect on working alliance at the first session; although

this positive effect became a negative association following the initial session (Sauer et al., 2003). Sauer et al. (2003) explained that this finding could be due to therapists, who are more likely to anxious about establishing a good therapeutic relationship, initially putting more effort into the relationship leading to the initial positive rating of working alliance.

Ligiero and Gelso (2002) explored the relationship between therapist attachment patterns and negative therapist countertransference behaviours (rated by supervisors). These negative countertransference behaviours included behaviours such as rejecting the client or talking too much in sessions. The authors found a significant inverse relationship between level of therapist secure attachment and negative countertransference behaviours, meaning that more secure therapists were more able to resist behaving in this way. Therapist dismissing attachment was associated with supervisor ratings of hostile countertransference and hostile and distancing countertransference was higher when the client had a preoccupied attachment and therapists had a fearful or dismissing attachment pattern (Mohr, Gelso, & Hill, 2005). In terms of transference it would seem from a study by Dozier et al. (1994) that case managers who were more dismissing or preoccupied in attachment style were more likely to act accordingly. Preoccupied case managers became entangled with preoccupied attached clients' overt reactions, perceiving more client dependency needs and intervening in more depth. More dismissing case managers perceived less client dependency needs and intervened in less depth.

The above research suggests that when the therapist has an insecure attachment style it is less likely to lead to a positive therapeutic relationship over time (Dozier et al., 1994). It also suggests that both therapist and client attachment styles need to be taken into account to fully understand the therapeutic relationship.

Interaction between therapist and client attachment style and working alliance

It is better for the therapeutic relationship for the therapist to be classed as securely attached overall (Slade, 2008, Chapter 32), although differences within the preoccupied-dismissing dimension can impact on the relationship in a positive way (Tyrell et al., 1999). This finding has been a result of researchers searching for individual dispositions of therapists and clients which may contribute to therapy outcomes based on the finding that all psychotherapies produce equivalent outcomes (Wampold et al., 1997).

At least 175 client categories and 40 therapist categories of individual characteristics have been considered as potential indicators of effectiveness of treatment (Beutler, 1991). Similarity between therapist and client on variables such as gender, ethnicity, native language and attitudes, beliefs, personal values and coping styles have been related to successful interventions (Nelson & Neufeldt, 1996). However, research has suggested that matching clients and therapists in terms of dissimilarities on interpersonal characteristics produces the most effective outcome compared to any single characteristic of the client or therapist (Beutler, 1991; Reis & Brown, 1999). Bernier and Dozier (2002) reported that the finding is congruous with the underlying assumptions of particular clinical models, which consider a corrective emotional experience as the result of differences between client and therapist and important for therapeutic change.

Attachment theory can account for this finding that the interpersonal characteristics of each individual in a therapeutic relationship are key to understanding the therapist-client match (Bernier & Dozier, 2002). Bowlby (1988) suggested that the main task of the therapist is to help clients recognise and change their insecure attachment behaviour by challenging the client's beliefs about relationships through flexibly adopting a stance that is in contrast and non-complementary. Therefore, opposite or contrasting interpersonal orientations in the therapist and client are optimal for the process and outcome of the therapy relationship due to the gentle

challenge they provide to the client's working model. To provide this experience the therapist must resist the natural pull to respond to the client's attachment style in a complementary manner (Bernier & Dozier, 2002). For example, with a dismissing client the therapist must resist the client's avoidance of discussing intimate topics, instead promoting gradual exploration of emotional issues. When a therapist is classed as securely attached overall they are able to be flexible and provide this experience for the client (Dozier et al., 1994). It can also be effective if therapists have a tendency towards the opposite of the client in terms of the preoccupied-dismissing dimension of attachment (Tyrell et al., 1999).

A corrective emotional experience is an experiential relearning through which the client can safely alter their rigid relational patterns by being exposed to new interpersonal experiences with their therapist.

These ideas are supported by Bernier, Larose, and Soucy (2005) who examined college students' relationships with volunteer professors involved in academic counselling dyads. The most effective relationships were those in which the professor's relational style was likely to challenge the student's attachment style. In another study considering clients with mental health diagnoses, Bruck et al. (2006) found that the greater the difference in introject and attachment styles within the therapist-client dyad the better the outcome. Outcomes were assessed in terms of symptoms, interpersonal problems, global functioning, working alliance and session evaluations. The two studies described above found similar results, although used different populations, methodologies and measures for attachment and outcomes. This could indicate that the effect of dissimilarity between therapists and clients attachment styles could be found across different settings and may arise in a variety of dyadic relationships.

Attachment style and the therapeutic alliance in psychosis

The quality of the therapeutic alliance is a key determinant of outcome in psychosis and research is ongoing to identify specific factors which influence and improve this relationship (Svensson & Hansson, 1999). Security of attachment has been associated with compliance with

treatment programmes in a sample of participants which included 12 individuals with a diagnosis of schizophrenia (Dozier, 1990). Dozier (1990) also reported that dismissing client attachment style was associated with rejection of treatment providers and poorer use of treatment; preoccupied client attachment style was associated with clinician reported demanding behaviours and non-compliance. Tait et al. (2004) supported Dozier's (1990) findings and reported that clients with psychosis and insecure attachment styles defined in terms of closeness, dependency and anxiety, were linked to poorer engagement with services.

When considering therapist and client attachment styles interacting to determine the quality of therapeutic relationship for clients with severe psychiatric disorders (including schizophrenic disorders) two studies by Dozier and colleagues are relevant. In the first study Dozier et al. (1994) explored the relationship between case managers attachment styles and interventions used with clients; client attachment styles were also assessed. Case managers who were more insecure intervened in more depth and perceived more dependency needs with clients who were preoccupied than those who were dismissing. There was a non-significant trend demonstrating that more secure case managers intervened in less depth and perceived less dependency needs with clients who were preoccupied. Within the insecure attachment styles, more preoccupied case managers intervened in greater depth than more dismissing case managers. More preoccupied case managers also perceived more dependency needs, especially in clients who were more preoccupied.

These results suggested that case managers who were more secure were more able to respond to the unconscious needs of the client by providing a non-complementary gentle challenge to their attachment representations. Insecure case managers only responded to the most concerning, current needs of the client, which meant insecure case managers may have behaved in the way the client has come to expect, which complemented and maintained the clients' representations of others.

The second study by Tyrell et al. (1999) considered the effects of both clients' and case managers' attachment states on working alliance, rated

by clients with severe psychiatric disorders (including schizophrenic disorders). Their findings suggested that case managers and clients functioned better together when their attachment style differed on the preoccupied-dismissing dimension. Tyrell et al. (1999) explained the result in the context that to modify clients' current strategies in approaching interpersonal relationships, the clinician must behave in a way which disconfirms or challenges the clients' usual expectations.

It is less clear why clients would rate a relationship as stronger when working with a therapist who challenges them. Tyrell et al. (1999) considered time an important factor to address this issue; suggesting that initially a client may feel more threatened, though over time may be more able to recognise the relationship as a safe base to explore new ways of interacting. Another possible explanation is that the Tyrell et al. (1999) study only considered working alliance rated by clients. Using case manager ratings as well may have given more scope for explaining why a client may have had more positive feelings about a relationship with a case manager dissimilar to themselves. For example, case manager ratings may have had more emphasis on the bond aspect of working alliance, which might have helped explain client positive feelings regarding the relationship. The implications for these findings suggest that matching clients and clinicians in terms of their attachment styles could lead to an advantage in terms of therapeutic alliance and outcomes (Daniel, 2006).

The two studies described above (Dozier et al., 1994; Tyrell et al., 1999) suggest two important findings. The first is that a therapist must be classed as secure in overall attachment style to be able to be flexible in how they respond to a client; at times challenging a client's attachment style aiming to enhance clients' flexibility and capacity for change (Slade, 2008, Chapter 32). And second, when therapists and clients differ on the preoccupied-dismissing intervention and the therapist can provide a challenge to a client's current working model of how they expect others to behave, this can lead to a better working alliance and ultimately an improved therapeutic outcome.

It is also important to consider the limitations and possible criticisms of the Tyrell et al. (1999) and the Dozier et al. (1994) studies. Both studies recruited case managers as therapists. They were described as providing practical help to clients and supportive psychotherapy. The studies acknowledged that case managers were unlikely to have the level of expected training for psychotherapists. The Working Alliance Inventory was used in the Tyrell et al. (1999) study though it is not clear whether case managers' supportive therapy would have been structured enough to establish goals and tasks in therapy. Therefore, the working alliance measures may only be valid for the bond ratings. The present study recruited a sample of therapists (assistant, clinical and forensic psychologists) to ensure the working alliance was built in a more structured manner, although this means it is less easy to compare the current study with the Tyrell et al. (1999) study. It is also important to consider the influence of different psychotherapeutic approaches on client rated working alliance and not be over-inclusive when comparing different studies with regard to various therapy approaches.

The Tyrell et al. (1999) study only considered working alliance rated by clients. Using case manager ratings as well may have given a richer understanding of the relationship. The sample size of clients with a diagnosis of psychosis in both studies, especially the Dozier et al. (1994) study, was quite small (n=17) which would limit the generalisability of findings.

Both studies used the AAI to measure attachment which can be criticised as individuals' security of attachment is derived from the coherence of their narrative, which could be particularly difficult for clients with a diagnosis of psychosis, especially when thought disorder is present (Berry et al., 2007). The AAI can also be criticised for its focus on parental relationships during childhood and has been described as actually measuring a different construct to adult attachment style, namely the individual's representation of their parents' behaviour and the individual's sense of how these representations impacted on their own development (Diener & Monroe, 2011).

Summary and aims

Summary

Attachment styles can provide a framework for understanding how individuals interact in therapeutic relationships (Bowlby, 1988). Researchers have measured attachments differently which needs to be taken into account when comparing studies (Crowell et al., 2008, Chapter 26). Attachment theory can provide further understanding in relation to the behaviour of clients with psychosis, particularly providing a framework about the role and predictors of interpersonal relationships in the development and course of psychosis (Berry et al., 2007). Therefore, this makes attachment theory especially relevant for exploring therapy relationships with clients with psychosis and ultimately considering effective therapeutic relationships and outcomes for this client group. Attachment theory can also have a significant role to play in facilitating a therapeutic environment for clients with psychosis in inpatient settings (Goodwin, 2003). For clients with psychosis, being admitted to hospital may increase their distress and stimulate attachment behaviour, although studies investigating attachment and psychosis have mainly focused on community samples.

Since the current study is concerned with attachment relationships within therapy it is important to consider psychotherapy processes and difficulties related to evaluating outcomes. This includes acknowledging individuals' context and environment and considering the various other influences or common factors that may impact on the therapy process. The therapeutic relationship is the focus of the current study and is one of the most frequently studied common factors. To consider how attachment styles for individuals with psychosis influence the therapeutic relationship the working alliance of a relationship can be measured (Daniel, 2006). Working alliance is also a concept that has been conceptualised and measured differently (Elvins & Green, 2008).

Client attachment styles have been shown to influence the working alliance, with secure client attachment styles indicating a positive alliance and insecure client attachment styles generally indicating a poorer alliance

(Romano et al., 2008; Smith et al., 2010). Therapist attachment styles have also been shown to influence the working alliance; with secure therapist attachment styles generally leading to a positive alliance, although research on the influence of insecure therapist attachment styles on working alliance has been more mixed (Dunkle & Friedlander, 1996; Sauer et al., 2003).

Findings from research investigating the association between therapist and client attachment styles and working alliance have also been more mixed. Some studies have suggested that dissimilarity between client and therapist attachment styles indicates a better working alliance, while other studies have suggested that similarity is more effective (Bernier et al., 2005; Nelson & Neufeldt, 1996). When clients have diagnoses of psychosis, research focusing on the association between client and therapist attachment styles and working alliance has suggested that if therapists are securely attached overall they are able to provide a non-complementary response to clients. This gently challenges clients' attachment representations. Research in this specific area has also suggested dissimilarity between client and therapist attachment styles indicated a better client rated working alliance (Tyrell et al., 1999).

Since therapeutic alliance predicts therapy outcomes it is important to explore effective use of therapy for clients with psychosis (Martin et al., 2000). Examining the complexities between therapist and client attachment styles and therapeutic alliance may allow for the provision of attachment focused tailored interventions for clients with psychosis (Daniel, 2006).

Aims
The present study's aims and hypotheses are outlined below. Research would suggest a link between client and therapist attachment styles and working alliance. However, the exact nature needs to be further examined particularly in an inpatient client group with psychosis. Therefore, the main aim of the study was to examine how the interaction between therapist and client attachment styles affected clients' with psychoses perceptions of working alliance in therapy. It was considered that therapist rated

working alliance may influence client rated working alliance through clients' possible awareness of their therapists' views of working alliance. This could lead to a demand characteristic of clients rating alliance to appear to be progressing or to be similar to their therapist. Therefore, therapist rated working alliance was controlled for in the analysis.

Hypothesis: It was hypothesised that greater dissimilarity between clients with psychosis and their therapists on the dimension of dismissing vs. preoccupied attachment would predict higher client rated working alliance.

Extended methods

Design

A cross sectional within subjects design was utilised for this study. Using a within subjects design meant that all participants completed both measures used in the study to measure working alliance and attachment style. A strength of recruiting the same participants to complete all measures meant there were fewer variables which can influence research assessing different groups of participants. A strength of using a cross sectional design is that there is a natural view of the research question without influencing or manipulating variables which could bias outcomes.

Most therapists were working with more than one client in the present study, meaning that client data was nested within therapist data. Whilst this is often the case for studies investigating dyads and can provide interesting data, it can be difficult to analyse. This aspect of the design of the present study was accounted for in the analysis, although many studies with this kind of data do not account for the nonindependence of the data structure (Marcus, Kashy, & Baldwin, 2009).

Participants

Inclusion and exclusion criteria

Therapists included in the study were assistants (with a minimum of one year of clinical experience), clinical or forensic psychologists. It was important that therapists had a minimum amount of clinical experience in order to have had practice in the skill of establishing a therapeutic relationship. However, assistants and clinical or forensic psychologists were all included to ensure a range of experience to be able to check whether therapists' years of experience was influencing client rated working alliance. Literature has suggested therapist experience can influence working alliance (Kivlighan et al., 1998).

The study excluded individuals who could not communicate in English. Due to limited resources available to the study it was not possible to pay for a translator. There would also have been concerns about the questionnaires not being valid if they were translated. Where clients had difficulty reading there were staff or keyworkers available to help administer the questionnaires.

Participants were included in the study who could give informed consent. It was outlined to therapists that clients must have the capacity to consent to be identified and approached to take part in the study. The researcher considered clients' capacity to consent with members of the clients' multidisciplinary team. This included considering whether a client could understand and retain the information relevant to make the decision about taking part in the study. Whether they could use the information to weigh the risks and benefits to themselves, as part of the process of making a decision and that they could communicate their decision. Where possible the researcher took steps to enhance decision making, for example providing information in different formats to make it more accessible.

Participant demographic table

Table 7 (below) shows the gender of all participants who took part in the study.

Table 7. Participant demographic table

	Gender	
	Male	Female
Therapists	3	12
Clients	34	12

Sample size

Sample size was calculated a-priori using G*Power Version 2.0 (Erdfelder, Faul, & Buchner, 1996). The effect size used in the power calculation was based on previous literature (Tyrell et al., 1999). Tyrell et al. (1999) used correlations and regression analyses to examine the relationships between client and therapist attachment styles and working alliance and found an effect size (r) of 0.42. To power a regression analysis for the present study with one predictor (the overall difference score between client and therapist attachment styles) a sample size of 39 individuals would give the study 80% power (5% alpha level; one tailed significance) to detect a relationship.

The maximum possible number of clients available to recruit from the independent healthcare provider was 344. The maximum possible sample size of therapists working at the hospitals was 22. This meant that the target sample size was achievable. It was appropriate to power the study based on the number of clients the study aimed to recruit because for the purpose of this research one 'participant' counted as a therapist and client dyad and the outcome variable was client rated working alliance. Data was collected for 61 individuals which meant 46 pairs including 15 therapists (68% of the total possible sample size) and 46 clients (13% of the total possible sample size). Therapists rated their perception of working alliance with more than one client. Table 8 (below) shows descriptive data on how many clients each therapist rated.

Table 8. Descriptive data showing how many clients each therapist rated in terms of working alliance.

	Participants														
Therapists	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Clients	3	4	4	3	2	6	2	7	3	1	1	2	2	2	4

Note. 'Therapists' means all 15 therapists taking part in the study numbered 1-15. 'Clients' means the total number of clients rated (in relation to working alliance) per therapist.

Measures

Working Alliance Inventory (WAI) key features

The Working Alliance Inventory was designed to measure the three dimensions of Bordin's (1979) working alliance concept in adults across all types of therapy. The WAI was developed by Horvath and Greenberg, (1989) who devised client, therapist and observer versions of the scales in a 36 item 7-point Likert scale and also in a shorter 12 item version. It is possible to derive scores for the task, goals and bond components and a global score can also be computed with higher scores relating to good working alliance. Global scores range from 36-252 and component scores range from 12-84.

WAI validity

The original development of the WAI was generated through a series of sequential ratings and evaluations of the prospective items. An initial pool of 91 items was generated (35 bond, 33 goal, and 23 task items) on the basis of a content analysis of Bordin's (1979) descriptions of each of these dimensions. Each item in the pool was designed to capture a feeling, sensation, or attitude in the client's field of awareness that may be present or absent depending on the strength of one of the components of Bordin's concept of the working alliance. These items were evaluated for construct validity by psychologists with different theoretical perspectives and experts in the field of alliance to reduce conceptual bias.

Horvath and Greenberg (1989) noted that the three component scales of the WAI are highly correlated, calling into question whether they measure three separate aspects of the alliance or one more general construct. To determine this, Tracey and Kokotovic (1989) completed a confirmatory factor analysis and found that the WAI assessed both the three unique aspects of the alliance as well as a more generalised, common second-order factor.

Alphas for the WAI were reported as 0.93 for the full scale and ranged from 0.85 to 0.88 for the subscales, which were also found to be highly correlated (0.69–0.92; Horvath & Greenberg, 1989). The WAI correlates with a variety of outcome indices (Horvath, 1994, Chapter 5) and other inventories designed to measure similar traits, demonstrating convergent validity. Evidence for discriminant validity of the WAI is provided by its use in a large number of different populations with different levels of alliance (Samstag, Batchelder, Muran, Safran, & Winston,1998).

The WAI has been used in several robust outcome trials which have demonstrated predictive validity of the WAI through change in client symptoms in psychotherapy (Klein et al., 2003). Hatcher and Barends (1996) completed a factor analysis of three alliance measures including the WAI and reported six common factors to the scales. Two of these factors correlated with client improvement demonstrating predictive and concurrent validity.

WAI reliability

There has been strong support for reliability of the WAI (alphas 0.85–0.93; Elvins & Green, 2008). Reliability estimates (using Cronbach's alpha) ranged from 0.85 to 0.88 for the subscales for the client version of the instrument (Elvins & Green, 2008) and from 0.68 to 0.87 for the therapist version (Tracey & Kokotovic, 1989). Reliability estimates for the complete instrument were estimated to be 0.93 for the client version and 0.87 for the therapist version (Horvath & Greenberg, 1989).

Several studies have adopted the abbreviated version of this scale (Tracey & Kokotovic, 1989). The observer version of the WAI has high internal

consistency (0.98) and interrater reliability. A meta-analysis of alliance studies in adult literature included comparisons of alliance assessments used in different studies and reported that the WAI was used most often and showed the best interrater reliability ($r = 0.92$ overall; Martin et al., 2000). Martin et al. (2000) also considered that the WAI has received more empirical scrutiny and support in the literature than most other scales, has been used in robust outcome trials and therefore is the most appropriate assessment of choice in future working alliance research.

WAI: rationale for selection

The WAI was used in the present study as it has been shown to have good reliability and validity. The scale was designed to measure alliance factors in all types of psychotherapy and to measure the theoretical constructs underlying Bordin's (1979) conceptualisation of the alliance. The scale provides both an overall alliance score and also an assessment of Bordin's (1979) three aspects of the alliance: the bond, the agreement on goals, and the agreement on tasks. The WAI also provides an assessment of Horvath and Luborsky's (1993) two core aspects of the alliance measured by most scales: the therapist-client affective relationship and collaboration to invest in the therapy process.

Relationship Questionnaire (RQ) key features

The Relationship Questionnaire (RQ) was developed by Bartholomew and Horowitz, (1991) and consists of four statements outlining four attachment prototypes: secure, dismissing, fearful and preoccupied, which are based on Bartholomew's (1990) model. Participants are asked to rate how much each statement describes them in close relationships on a seven point Likert scale, ranging from not at all like me (1) to very much like me (7). The RQ also asks participants to choose a best fitting attachment prototype.

RQ validity and reliability

The RQ was developed directly from Bartholomew's (1990) model which was based on original self-report conceptualisations of attachment styles (Hazan & Shaver, 1987, 1990). Descriptions of the RQ's four attachment styles are similar to the three descriptions developed by Hazan and

Shaver (1987, 1990), demonstrating construct validity. Bartholomew's (1990) model can also be seen to reflect Ainsworth et al.'s (1978) original conceptualisation of attachment behaviour into three categories (Fraley & Spieker, 2003), again demonstrating construct validity. Reliability estimates for the RQ have demonstrated that they are similar to Hazan and Shaver's (1987, 1990) three category instrument, demonstrating concurrent validity (Scharfe & Bartholomew, 1994).

Self-report measures and narrative measures of attachment are considered to measure different aspects of close relationship functioning and have been reported to have a weak association (Roisman et al., 2007). Narrative measures are considered to measure unconscious aspects of attachment, while self-report measures are considered to measure more conscious processes. However, as well as there being some similarity between a scoring system for the AAI (Kobak et al., 1993) and Bartholomew's (1990) model, Mikulincer and Shaver (2007) have demonstrated that assessments which measure unconscious processes were predictively related to self-report measures of attachment. This suggests that there are relationships between the different assessments of attachment which could demonstrate convergent validity.

Convergent validity has also been demonstrated by Griffin and Bartholomew (1994a, pp. 17-52) who reported correlations between the four RQ attachment prototypes and interview ratings of the same four attachment types. When the interview ratings were also compared to dimensional scores from the RQ the convergent correlations increased. Bartholomew and Horowitz (1991) further demonstrated convergent validity; substantial convergence was demonstrated through factor analysis of three different measures of attachment including the RQ. Griffin and Bartholomew (1994b) reported discriminant validity based on relatively small correlations between attachment dimensions within the RQ.

Reliability estimates for the RQ have demonstrated kappas of around 0.35 and r's of about 0.50 (Scharfe & Bartholomew, 1994). Bartholomew and Horowitz (1991) have reported alpha coefficients computed to assess the

reliability of the RQ as ranging from 0.87 to 0.95 and test-retest reliabilities as ranging from 0.74 to 0.88.

RQ: rationale for selection

Self-report measures are useful because attachment plays an important role in adults' emotional lives and individuals are best placed to provide current explicit information about their behaviour and emotional experiences. It is also important to consider the evidence suggesting that self-report measures can also be linked to unconscious processes (Mikulincer & Shaver, 2007), meaning that conscious and unconscious processes may be operating in the same direction to achieve similar goals in relationships (Crowell et al., 2008, Chapter 26).

The RQ is easily and quickly administered which was important considering that the client group in the present study may be less likely to engage in completing the questionnaires (Tait et al., 2004). The RQ was chosen as it is more likely than lengthy questionnaires to encourage a dialogue and therefore engagement (Hietanen & Punamäki, 2006). The RQ was also useful because it has been implemented in multiple studies (Schmitt et al., 2004) and the RQ is the only measure, among popular measures of attachment, to demonstrate independence from self-deceptive biases (Leak & Parsons, 2001).

Procedure

Ethical approval for the research was applied for to the Integrated Research Application System (IRAS; NHS National Research Ethics Service), to The University of Lincoln Ethics Committee and to the research and development group of the independent healthcare organisation providing access to participants. The Leicester, Northamptonshire and Rutland Research Ethics Committee 1 (NHS National Research Ethics Service) granted their approval on 6th May 2011. The University of Lincoln Ethics Committee granted their approval on 6th April 2011. The independent healthcare organisation granted their approval on 5th April 2011 (see Appendix 1 for all approval letters from these bodies).

The procedure of the study is outlined below in a flowchart (see Figure 3).

Figure 3. Procedure flowchart.

Therapists were recruited through email contact from the researcher, after the Head of Psychology had obtained permission from therapists to be approached. An email was initially sent out to all therapists and followed up by individual emails to those who had not responded. Therapist information sheets and consent forms were attached for therapists to read and consider.

↓

If therapists agreed to take part in the study and met the inclusion criteria (a minimum of one year clinical experience) the researcher met with them at their hospital at least 24 hours after the email contact. This was to answer questions, sign the consent form and identify clients. Therapists identified all clients they were working with who met the inclusion criteria, which included: checking clients' diagnoses, discussing clients' capacity to consent, reporting how long they had been working together and establishing that clients could speak English. The order in which clients were approached was determined by drawing their names out of a hat.

↓

Clients were approached by a member of the psychology department and introduced to the researcher who then explained the study to them and gave them the information sheet and consent form to consider. This took around 10 minutes to complete. At least 24 hours later the researcher visited the hospitals again to ascertain if therapists and clients wanted to take part in the study and if they consented, they completed the questionnaires.

↓

Participants were debriefed and thanked for their participation. Debriefing included providing participants with any necessary information to complete their understanding of the nature of the research. The researcher discussed with the participants their experience of the research to monitor any unforeseen negative effects or misunderstandings. Participants were reminded about their right to withdraw from the study and to obtain information about the results.

Data was collected by the researcher by visiting each hospital to give information to potential participants and to complete the assessments face to face. Visiting each hospital allowed the researcher a chance to explain the study fully and answer questions to help participants decide whether they wanted to take part. It also facilitated a closer working relationship with the therapists allowing easier and flexible organisation in arranging dates to visit, compared to communicating over the phone or email. An alternative was to ask therapists to complete the assessments with their clients which would have been likely to confound results, as clients may have been likely to answer more positively about the therapeutic alliance.

The questionnaires were scored and the information was entered onto a data base. Each therapist and client dyad were given a unique code to match their data, but would not allow them to be identified. Demographic information was also collected for descriptive purposes and it was useful to check whether some of the information influenced the outcome variable. The information collected included gender of clients and therapists, types of therapy used by the therapists and therapist years of experience.

Information on gender was collected to describe the population sample and to check whether it influenced the outcome variable (client rated working alliance), although this was not part of the main analysis. Research has demonstrated that associations between client attachment style and working alliance have been different in men and women (Hietanen & Punamäki, 2006).

Research has demonstrated that type of therapy and the formation of the therapeutic relationship has had mixed results. Some research has suggested that therapeutic alliance is independent of the type of therapy used (Martin et al., 2000) whilst other research has demonstrated that particular therapist orientations have improved working alliance (Black et al., 2005). Therapists' type of therapy was checked to consider whether it influenced client rated working alliance, although this was not part of the main analysis.

The number of therapist years of experience has also demonstrated mixed results in the literature. Dunkle and Friedlander (1996) found no relationship between therapist experience and client rated working alliance, although Slade (2008, Chapter 32) reviewed research and suggested that experience was a factor contributing to good working alliance between the therapist and client. The number of therapist years of experience was checked to consider whether it influenced client rated working alliance, although this was not part of the main analysis.

Data analysis

All data were entered into the statistical programme SPSS version 17.0 and analysed using the same programme. Descriptive statistics were used to summarise variables which included means and standard deviations for continuous variables and frequencies or percentages for categorical variables. An alpha level p value of 0.05 was used to accept the main test statistic as significant (Field, 2009).

The data collected for this study was not independent as therapists rated working alliance and their attachment styles with more than one client, meaning that client data was nested within therapist data. This can lead to dependency in the data, meaning relationships may be detected only because there is a relationship between therapists and more than one client. To account for this statistically, various options were considered to analyse the data.

One approach could be to ignore the data being nested and analyse the data as if the group structure is not present, violating the assumption of independence. This approach is referred to as disaggregated analysis (Cohen, Cohen, West, & Aiken, 2003). However, since most therapists rated their attachment style with more than one client the difficulty of not taking account of nested data means that the standard errors may be very small. This would lead to alpha level inflation and the increased chance of a Type I error (believing there is an effect in our population where one does not actually exist). When dealing with nested data it is possible to

calculate the amount of dependency between scores, known as the intraclass correlation (ICC).

In the present study the ICC represents the proportion of total variability that is attributable to the therapists. The ICC can also be conceptualised as a measure of the extent members of the same group (for example, the group of clients seen by a therapist) are more similar to one another than to members of other groups. Using client rated working alliance as the dependent variable the ICC was -0.06, which was not significant (F value = 1.21, p = .73), meaning that the data is actually slightly more different within groups (therapists) than between groups. A possible reason for this could be due to therapists adapting their practice for different clients. It has been reported that experienced therapists are able to vary their therapeutic approach depending on the client (Daly & Mallinckrodt, 2009). It could also be possible that there are processes influencing individual therapists' behaviour with different clients such as, how much time is spent with each client (Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). Therapists may judge that they need to spend more time with specific clients, meaning they have less time available for other clients which may influence client ratings of working alliance.

Since the ICC is very low and not significant that could be a reason to ignore the data being nested and complete the analysis without taking this into account. However, even with a low ICC it is likely that the alpha level will still be inflated and the ICC can underestimate the level of non-independence (Cohen et al., 2003; Kenny et al., 2002). Also, it has been suggested that unless a study has at least 25 groups it is likely there is insufficient power to detect a significant ICC (Kenny et al., 2002). On a practical and theoretical level it is clear in the present study that the data is nested which could lead to dependency in the data and it is appropriate to account for this in the analysis.

A further option was considered, known as aggregated analysis, which aggregates the data at group level by obtaining the mean for each variable for each group. The groups are then treated as the unit of analysis and the analysis details the relationship between the means of variables within a

group. However, this option would lose individual information and power, making it difficult to generalise from the group level analysis to the individual and could lead to inaccurate conclusions.

Multilevel models were also considered as they are able to analyse nested data. They can address the group structure of the data as well as both the individual level and group level relationships between variables. However, it has been reported that at least 20 groups would be needed to achieve enough power to detect a cross-level interaction (Kreft & De Leeuw, 1998). Since the present study collected data for 15 therapists, multilevel modelling was not considered appropriate. With a smaller number of groups an approach using dummy coding in regression analysis (fixed effects) was considered more appropriate for the present study. An effect in an experiment is a fixed effect if all possible treatment conditions of interest are present in the experiment. There is an assumption that the model is constant across the whole sample and for every case of data a score can be predicted using the same values. This approach analyses the variables of interest but also includes a set of dummy coded variables to identify the group membership of each individual in the data set and control for it. In the present study the 15 therapists or groups were dummy coded to create variables which can be held constant in the analysis.

In terms of assumptions for carrying out parametric analyses regression analyses require data measured at an interval level. An interval variable is a type of continuous variable which is a variable that gives a score for each person and can take on any value on the measurement scale used. To say that data is interval means that there are equal intervals on the scale used which represent equal differences in the property being measured. Variables in the present study were interval. Therefore, this assumption regarding levels of measurement was met. For further information on assumptions for regression analysis see extended paper results, other analyses for test statistics.

Ethical issues

Ethical approval for the research was applied for to the Integrated Research Application System (IRAS; NHS National Research Ethics Service), to The University of Lincoln Ethics Committee and to the research and development group of the independent healthcare organisation providing access to participants. Recruitment of participants and data collection took place after approval from these bodies had been granted. All participants who took part in the study provided written consent.

The main ethical issues considered by the researcher are outlined below. It was not expected that the research would cause participants harm. However, in some cases it was considered that it may lead therapists and clients to think about past relationships, which could be distressing for them, especially clients who are more likely to have experienced insecure attachment relationships (Crowell et al., 2008, Chapter 26).

To lessen the possibility of distress, participants had the procedure of the study explained to them before data collection and they were assured that their participation was voluntary. The length and ease of access of the questionnaires was considered to minimise the amount of time spent considering relationships. The questionnaire instructions directed therapists and clients to consider only current relationships. However, it was still possible that this could be upsetting. For example, if a client felt their therapy was not progressing or they felt they did not get on with their therapist they could feel anxious or distressed when completing the questionnaires.

Participants were monitored throughout data collection for any signs of distress. If therapists or clients became distressed during the study, completion of the questionnaires could be paused or stopped. Indicators of distress included difficulty answering questions, or becoming visibly upset or angry. The researcher utilised previous experience and training to notice indicators of distress. In relation to clients, the researcher liaised with members of hospital staff or the clients' keyworkers so that someone

was available to provide support if necessary. In relation to therapists, the researcher ascertained that they were able to contact their supervisor for support if necessary. However, no clients or therapists became distressed during the data collection.

Participants were made aware in the information sheet of circumstances in which the researcher would break confidentiality to safeguard them or other people. Circumstances included disclosure of abuse, harm to themselves or others, any harm relating to the safeguarding of children.

Participants were invited to take part in the study if they were deemed to have capacity to consent. The researcher liaised with a member of staff from clients' multidisciplinary teams to gain their assessment of clients' capacity. Assessment of capacity and consent was considered an ongoing process that could fluctuate due to the nature of clients' diagnoses and so was assessed and monitored when clients were approached initially, after they had considered their decision to take part for (at least) 24 hours, and again before data collection. This helped to protect clients who may be susceptible to coercion. Capacity was monitored by the researcher (who had completed training on the Mental Capacity Act, 2005) which included: considering whether a client could understand and retain the information relevant to make a decision, whether they could use the information to weigh the risks and benefits to themselves as part of the process of decision making and whether they could communicate their decision.

Other aspects were considered to aid capacity and participants' ability to give informed consent. These included participants being given an information sheet and consent form to consider for at least 24 hours before considering whether to take part in the study. They also had an opportunity to ask questions of the researcher when they were given the information sheet and consent form and again after they had considered these. The information sheets were developed to be clear and informative and advise participants regarding the purpose and procedure of the study which included that participation was voluntary and client care would not be affected. Client and therapist information sheets were written to allow them to be easily read and understood and were checked for reading ease

using Flesch's readability scores (Flesch, 1948). The client information sheet had a reading age equivalent of 12-13 years and the therapist information sheet had a reading age equivalent of 16-17 years (see Appendix 2 and 3 for therapist and client information sheets and consent forms).

Therapist and client questionnaires were coded using a unique individual ID number, to match clients' and therapists' data for analysis, to disguise personal data and so that questionnaires could be matched with consent forms if therapists or clients wanted to withdraw from the study. Confidentiality was maintained by storing data in locked cabinets with the University of Lincoln administrators.

Extended results

Sample and descriptive characteristics

Table 9 (below) shows a summary of client and therapist characteristics including demographic information and WAI descriptive statistics.

Table 9. Summary of client and therapist characteristics and demographics, including descriptive statistics for WAI total scores.

	Gender		Secure Attachment	Mean (SD) WAI global score
	Male	Female		
Client	34	12	26%	195.22 (32.93)
Therapist	3	12	100%	192.91 (29.69)

Table 9 (above) shows that 26% of clients rated themselves as secure overall. Of the clients who rated themselves as insecure overall 44% rated themselves as dismissing, 19% rated themselves as fearful and 11% rated themselves as preoccupied. All therapists rated themselves as secure overall.

Secondary analyses

Research has suggested that there may be other factors influencing the relationship between attachment and working alliance (Black et al., 2005; Bruck, et al., 2006). Therefore, secondary analyses (two-tailed Pearson's correlations tests) were completed to check whether there were other variables influencing client rated working alliance that were not in the main analysis. These other variables included client and therapist gender, therapist therapeutic orientation and therapist years of experience. No predictions were made about the direction of the associations.

It is important to note that these analyses are to check for influence on the outcome variable, the study was not powered to test these relationships. It is also important to note that the nested data structure is not taken into account for these analyses and therefore caution must be taken in interpreting the analyses. The nested data was not taken into account on the basis that the ICC is very low (-0.06), meaning that it could be argued there is not very much dependency in the data (Arceneaux & Nickerson, 2009). Table 10 (below) shows correlations between client rated working alliance and client and therapist gender, therapist therapeutic orientation, therapist years of experience and the dismissing-preoccupied difference score for clients and therapists. The alpha level was corrected (originally set as $p < .025$) for the number of correlations carried out using a Bonferroni correction by dividing the alpha level by the number of correlations carried out (making the alpha level $p < .004$). Therefore, there are no relationships that would be significant between client rated working alliance and client and therapist gender, therapist therapeutic orientation and therapist years of experience.

Table 10. Correlations between client rated working alliance and other variables.

Variables	2	3	4	5	6
1. Client-rated working alliance	0.012	0.108	-0.120	0.122	-0.017
2. Therapist gender		0.033	0.171	-0.335	-0.155
3. Client gender			0.131	0.329	-0.048
4. Therapeutic approach				-0.120	0.128
5. Therapist years of experience					0.100
6. Dismissing-preoccupied difference-score					

Note. Therapeutic approach is a dichotomous variable consisting of two therapy approaches, cognitive behavioural therapy (CBT) only and CBT plus another approach. Assumptions for carrying out Pearson's correlations were met. The therapist years of experience variable was not normally distributed and was therefore transformed into ranks before the Pearson correlation was carried out.

Correlation

Table 10 (in the above section) shows the correlation (Pearson's) between the difference between client and therapist attachment and client rated working alliance. A correlation was not completed prior to the regression analysis, which would be the usual process to examine if variables are correlated to make a decision whether to proceed with the regression analysis. It was not completed in the present study because it would not have been useful information to base a decision on as it does not take into account the nested structure of the data. It is provided here for descriptive purposes and shows that there would not be a significant relationship between the difference score for client and therapist attachment styles and client rated working alliance. It was carried out as a one-tailed analysis and the alpha level was not corrected ($p < .05$). This is because if it had been decided to complete the analysis without taking into account the nested structure of the data, the test would have been part of the main analysis with a theoretically driven predicted direction of association.

Other analyses

Normality testing

To ensure that assumptions for completing parametric analyses (in the present study, regression) were met, normality testing of the data was carried out for all variables. Normality of client rated working alliance was found to be non-significant, $D(46) = 0.058$, $p > .05$, meaning that the data did not significantly deviate from normality. However, for the regression model it is only necessary for the residuals in the model to be normally distributed. Residuals represent the error present in the model and are the differences between the outcome predicted by the model and the actual values of the outcome collected in the sample. Reviewing probability plots, scatter plots and histograms of the residuals showed them to be normally distributed.

Meeting other assumptions involved confirming that there was no perfect multicollinearity between predictor variables. This means that there should not be a perfect linear relationship (a correlation coefficient of 1) between two or more of the predictors. Although the current study was focusing on one predictor variable and holding other variables constant (dummy coded variables and therapist rated working alliance) it was still important to check the multicollinearity between these variables. This is because collinearity makes it difficult to obtain unique estimates of the regression coefficients, meaning that if two predictor variables are perfectly correlated the values of *b* for each variable are interchangeable (Field, 2009). Collinearity diagnostics in the SPSS output were used to check this assumption, including the variance inflation factor (VIF). All VIF values in the model were less than 5 meaning that collinearity was not a problem in the model.

Another assumption for the regression model involved confirming that the residuals were uncorrelated. A Durbin-Watson test was used to test for correlation between errors; the value computed was 2.332. It has been reported that a value of 2 means that the residuals are uncorrelated (Field, 2009), therefore, the errors in the present study can be considered independent.

A further assumption for the regression model involved checking for homoscedasticity and linearity. Homoscedasticity means that at each point along the predictor variable the spread of residuals should be fairly constant. The assumption of linearity means that the relationship between the outcome and predictor variable is linear. Homoscedasticity and linearity can be checked by viewing scatter plots through SPSS. The scatter plots showed a random array of dots suggesting that the assumptions of homoscedasticity and linearity had been met.

To consider whether any extreme cases were influencing the regression model casewise diagnostics were carried out. Two cases had standardized residuals that were out of the usual limits. However, since an ordinary sample would be expected to have 5% of cases out of the usual limits (Field, 2009) the sample appears to conform to what would be expected for a fairly accurate model.

Reliability analyses

Reliability analyses were completed on the WAI including both the therapist and client versions, to examine the consistency of the measures. Reliability means that a measure should consistently reflect the construct that it is measuring. It is suggested that values of .7 to .8 are acceptable values for Cronbach's alpha indicating good reliability, although for measures dealing with psychological constructs values below .7 may also be acceptable due to the diversity of the constructs being measured (Field, 2009). For the therapist WAI the total score and the task and goal subscales all had Cronbach's alphas above .9 (.96, .93, .93). The bond scale was slightly lower with a Cronbach's alpha of .78, although all these scores indicate good reliability. For the client WAI the total score and the task and bond subscales all had Cronbach's alphas above .8 (.94, .85, .89). The goal scale was slightly lower with a Cronbach's alpha of .77, although again all these scores indicate good reliability.

Extended discussion and reflection

The interaction between client and therapist rated attachment style

The present research hypothesised that where clients and therapists scored dissimilarly on the preoccupied vs. dismissing dimension, this would predict clients' perceptions of the working alliance. This study did not confirm this hypothesis. Research has suggested that the impact of interaction between client and therapist rated attachment style on working alliance has produced mixed results (Mohr et al., 2005; Romano et al., 2008; Tyrell et al., 1999). Attachment theory has been used to understand the client and therapist match, although interpersonal theory has also been used to explain this interaction (Kiesler & Watkins, 1989). Basic concepts of interpersonal theory include that an individual's personality develops as a result of interpersonal interactions (Bernier & Dozier, 2002). Interpersonal anxiety is experienced through individuals' perceptions of the disapproval of others (Kiesler, 1983, 2001). Individuals would strive to reduce this and as a result individuals would feel better about themselves when they think others are satisfied with them (Kiesler & Watkins, 1989).

Interpersonal behaviours are designed to elicit complementary reactions from others which validate an individual's expectations and perceptions, reinforcing behaviour (Kiesler, 1983, 2001). Therefore, a therapist may experience a pull to respond temporarily in a complementary way to the client, which may be necessary for the formation of alliance. Kiesler and Watkins (1989) have provided support for this idea by demonstrating a positive relationship between therapist complementary responses and the quality of early working alliance. Dunkle and Friedlander (1996) found that therapist personal characteristics such as degree of comfort with closeness predicted the development of positive working alliance and suggested this was especially relevant in the early phase of therapy.

Interpersonal theorists have also suggested that after providing this complementary response the therapist must then provide a non-complementary response to provide the client with different interactions to

what they usually experience (Kiesler, 1983, 2001). This explanation is very similar to the idea within attachment theory; that differences in specific attachment styles lead to better alliance. However, interpersonal theory seems to give explicit emphasis to initial similarity between therapists and clients and the importance of spending time forming the alliance. Research in this area has also been mixed, with some studies suggesting that non-complementary approaches were characteristic of unsuccessful dyads and some reporting positive outcomes with high levels of non-complementary responses from therapists (Bernier & Dozier, 2002; Tasca & McMullen, 1993).

The present research hypothesised that where clients and therapists scored dissimilarly on the preoccupied vs. dismissing dimension, this would predict clients' perceptions of the working alliance. This study did not confirm this hypothesis. Interpersonal theory can be applied to the current study's finding to explain that a possible reason for being unable to confirm the hypothesis relates to the stage of therapy being too early for therapists to provide a non-complementary response. Perhaps clients within this study needed a longer period of time building complementary interpersonal interactions as suggested within interpersonal theory because non-complementary responses were, at that point in time too challenging. This could have been due to the severity and types of symptoms clients were experiencing, as clients with more serious psychological problems have been reported as responding negatively to challenges from therapists (Dozier et al., 1994).

A further explanation regarding the present study's finding that therapist and client interaction of attachment styles did not significantly influence client rated working alliance could be due to not examining all possible aspects of the therapeutic relationship. Gelso and Carter (1994) suggested that all therapy relationships consist of three correlated but distinct components; working alliance, a configuration of transference and a real relationship, which are all present but vary depending on the relationship.

In the transference component both client transference and therapist countertransference are considered as relevant. Transference is seen as the client repeating earlier relationship conflicts and displacing them onto the therapist and countertransference is seen as the therapist's transference based on what the client communicates and how they behave (Gelso & Carter, 1994). The real relationship has been defined as how individuals in therapy relate to each other including: how genuine and truly authentic each individual is and how realistic each person is perceived and experienced to be (Gelso, 2002). Relationships have been reported between client secure attachment styles and positive ratings of the real relationship (Fuertes et al., 2007) and between countertransference and insecure attachment styles (Mohr et al., 2005). Research on different aspects of the therapeutic relationship has demonstrated the complex interaction of different variables and may go some way to explaining the lack of significant relationship found between therapist and client attachment and working alliance in the present study. If transference, countertransference and perceptions of the real relationship had been measured in the current study of client and therapist relationships perhaps they would have been found to be more prevalent than working alliance.

Methodological strengths and limitations

Design
Much of the research related to attachment and clients with psychosis has focused on cross sectional correlational designs (Berry et al., 2007). This study was also cross sectional in design; a longitudinal design would have allowed a more detailed understanding of the relationship between working alliance and attachment styles if working alliance ratings could have been collected at different time points within therapy sessions. Research has suggested that working alliance can fluctuate at different time points and it would be important to address this aspect in future research. Longitudinal designs would also allow for further exploration into the development and maintenance of psychosis against the background of how it impacts on attachment style and working alliance.

In the present study clients and therapists rated both their attachment styles and their perceptions of working alliance. This is a strength of the study as it extends research which has not often included both therapist and client perspectives of all concepts measured. It also provides a richer dataset to explore relationships.

The procedure of the present study described that therapists initially introduced the researcher to the clients. This could have introduced rating bias when clients were rating their perception of working alliance. Even though clients were assured that their therapists would not see their ratings and their care would not be affected, it is possible that having the therapist in close proximity liaising with the researcher and client before the completion of the questionnaires may have influenced client ratings. Therefore, it would have been useful to have asked for a different member of staff to liaise with in regard to interactions with clients. However, therapist rated working alliance was controlled for in the analysis to aim to reduce any bias that may have been influencing the way clients rated working alliance. This bias may have been in the form of a demand characteristic with clients' awareness of their therapists' views of the working alliance influencing their own rating due to wanting to be seen as progressing or as thinking similarly to their therapist.

It is important to acknowledge the difficulties of evaluating psychotherapy process and outcomes. For example, the present study created a preoccupied vs. dismissing dimension to detail the overall difference between client and therapist attachment styles. One reason for this was to be able to compare the results to a previous study using a similar design. However, the present study did not use the exact same attachment measure to the other study. It must be considered that design elements of the current study which make it innovative, may also lead to difficulties in comparisons.

Sample
The present study had a sample of therapists and clients from an independent healthcare company. When NHS trusts source independent or out of area healthcare for clients it could be because there is no service

within the NHS which caters for their specific needs (NHS Confederation, 2011). Therefore, it may be the case that clients had especially severe and complex psychopathology or particularly challenging behaviour which could have influenced both the number of clients taking part in the study and perhaps the results. This links with the possibility of clients having secondary diagnoses which also may have impacted on the results and would be useful data to collect in future studies.

This study included clients with a diagnosis of psychosis but did not consider clients' secondary diagnoses and the possible impact they had on working alliance. For example, clients with a personality disorder (Bachelor, Laverdiere, Meunier, & Gamache, 2010) or Aspergers syndrome may have formed therapeutic alliances which were influenced by symptoms of their secondary diagnoses, as well as by their attachment styles. This may have led to differences in attachment styles reported by clients, as well as ratings of alliance, which may have influenced the results of the present study.

In terms of clients' primary diagnoses, participants were recruited and included based on their diagnosis of psychoses according to The International Classification of Diseases 10th Revision (ICD-10; World Health Organisation, 1992). The process of assigning an individual a diagnostic category and relying on this to recruit participants can be a limitation, not least because it does not take into account the variation of individuals' experiences of difficulties. These differences between clients could be a factor influencing the results of the present study.

Assigning diagnoses may be useful to help understand patient difficulties with a view to informing treatment. However, there are also many problems with giving a diagnosis, such as the stigma that may be attached to certain diagnoses. It could be argued that giving a diagnosis is to label socially inappropriate behaviour as mental illness, although treatment would not be likely to be aimed at changing social situations which raises ethical considerations about how diagnostic systems are used. Also, there does not appear to be one uniformly accepted definition of mental disorder so classifications themselves could be disputed. Different diagnoses may

be given depending on the clinician, raising questions about whether diagnostic classification is reliable (Widiger & Clark, 2000).

Data Analysis

To analyse the difference scores between therapist and client on the preoccupied and dismissing attachment styles it was necessary to create a dimension variable prior to the analysis. Using difference scores has been common in social sciences and they are reported to have face validity and can be easily applied to practice (Griffin, Murray, & Gonzalez, 1999). Proponents argue that difference scores provide a unique combination of underlying components, although other researchers would also use the individual raw scores to describe relationships (Griffin et al., 1999; Tisak & Smith, 1994). However, for the present study it was important to compute a bipolar dimension and therefore using the individual raw scores may be less informative.

It has been reported that some researchers do not use difference scores as they believe them to be unreliable, particularly in relation to their underlying component scores (Thomas & Zumbo, 2011). However, other researchers have explained that this is not necessarily the case and using reliable measures can combat this difficulty (Tisak & Smith, 1994). Researchers who find difference scores useful have explained that using difference scores is actually the same process used in ANOVA analyses and therefore is a valid statistical technique (Griffin et al., 1999). Researchers have reported that if difference scores are appropriate from a practical perspective and the study has an acceptable amount of power, there is no reason to avoid them (Thomas & Zumbo, 2011).

The present study used a regression analysis (fixed effects) to analyse the data which included dummy coded variables to control for group membership of each individual in the data set. An effect in an experiment is a fixed effect if all possible treatment conditions of interest are present in the experiment (Field, 2009). There is an assumption that the model is constant across the whole sample and for every case of data a score can be predicted using the same values. Using a fixed effect model means that the results of the analysis can only be generalised to the particular set of

nested data in the present study (Field, 2009), which could be considered a limitation. Therefore, caution must be taken in interpreting the results.

Measures

Research on attachment and working alliance has demonstrated the variation in use of assessments aiming to measure the two concepts (Crowell et al., 2008, Chapter 26; Elvins & Green, 2008). Attachment measures can be considered to measure similar concepts, although there does not appear to be agreement about which is most useful. There appears to be more variation in studies in relation to the concepts associated with working alliance. Therefore, this is also a limitation of the current research, making comparisons with other studies difficult. A standard measure for attachment is required and a more consistent approach to the use of assessments for both the concepts of attachment and working alliance in future research.

Working Alliance Inventory

Reliability and validity have been extensively demonstrated for the WAI (Elvins & Green, 2008). However, when considering the development and emergence of alliance conceptualisations there has been a lack of overall general consensus and no one measure appears to have items from all aspects of the alliance concept it is purported to measure. Also, conceptual subscales proposed by developers of measures do not necessarily reflect item factors. In a review undertaken by Hatcher and Barends (1996) of three alliance measures including the WAI, it was found that there were factors common to the three assessments but they bore little systematic relation to the conceptual subscales proposed by the developers of the measures. It was found that the WAI in particular did not reflect the dynamic purposeful mutual work central to Bordin's (1979) theory, suggesting that perhaps it is too general in its measurement of alliance (Hatcher & Barends, 1996).

It appears there has been a lack of more experimental approaches in investigating hypotheses regarding the interpersonal processes underlying alliance and in considering and testing ideas about the most important parts of the relationship for prediction of alliance (Elvins & Green, 2008).

One task for future research should be to use experimental designs to see if the most valid concepts underlying alliance can be identified and thus their measurement refined and made more specific. Also the reported predictive effects of alliance on outcome have not been comprehensively tested against other variables in randomized trials.

In the present study ratings of alliance by clients and therapists may have been biased for different reasons. For example, clients' prior expectations of session usefulness have been shown to predict client and therapist rated alliance quality in several studies (Constantino, Arnow, Blasey, & Agras, 2005). Introducing observer measurements of alliance can address this difficulty, although they may miss important subjective, motivational or attitudinal aspects that are involved within the relationship. Also, clients and therapists may have introduced a social desirability bias into ratings; clients may have wanted to be seen as progressing in their therapy and therapists may have been keen to demonstrate their clients were improving.

It is possible that results of an alliance measure such as the WAI may be influenced by a mediating variable such as therapists' skill, meaning that therapists' abilities in developing alliances may be being measured rather than the perception of working alliance. Another difficulty interpreting the WAI comes from the scoring. There does not appear to be cut off points suggested by the authors regarding what score indicates a good level of alliance and what score indicates a poor alliance. This means that studies may vary in what they consider to be high levels of alliance and unless researchers report raw or descriptive scores it can make comparison difficult (Smith et al., 2010).

Relationship Questionnaire
Brief self-report measures are generally only expected to be moderately reliable (Griffin & Bartholomew, 1994a). The RQ is short and quick to administer meaning that reliability could be questioned (Backstrom & Holmes, 2001). However, due the nature and severity of psychopathology symptoms for clients in the present study it is likely that a more lengthy

attachment measure would have meant lower engagement with completion.

Bartholomew's (1990) four-category model (see Figure 2) has been applied most extensively to romantic relationships and adult friendships, although the RQ (derived from the four-category model) has more recently been used to assess populations with psychopathology such as psychosis (Hietanen & Punamäki, 2006). However, in future research it would be useful to use the RQ with a much larger sample to establish validation with this particular client group.

There is the limitation that self-report questionnaires are susceptible to response bias. In attachment literature this can particularly be the case with the dismissing attachment strategy. An individual with a dismissing attachment strategy would be more likely to deny or avoid emotional interpretations of behaviour and can idealise relationships. Therefore, this particular attachment style may not have been as evident as the others. However, Griffin & Bartholomew (1994a, pp. 17-52) used correlations to examine validity across different methods rating attachment and found that the dismissing pattern showed moderate convergence across methods. The present study did not find this difficulty either, with 44% of clients reporting their attachment strategy overall was dismissing.

Self-report measures can also be criticised as there is evidence to suggest that individuals may lack insight into their behaviour and motives and can under report symptoms (Crowell et al., 2008, Chapter 26). A diagnosis of psychosis can be associated with limited insight into difficulties (Brent, Giuliano, Zimmet, Keshavan, & Seidman, 2011) and therefore self-report measures may be particularly unreliable with this client group. However, Goodman et al. (1999) reported that individuals with psychosis are as reliable as the general population when reporting traumatic events. Given the link between psychosis and difficulties in interpersonal relationships (Berry et al., 2007) it would still be pertinent for future research to consider other methods of measuring attachment, perhaps a combination of self-report and observation.

Clinical implications

The present research and the literature base has demonstrated that the relationship between client and therapist attachment interaction and working alliance is complex and attachment measurement alone may not give enough detail to fully explain it. Therefore, rather than suggesting that therapists assess client attachment styles as an aid to developing interventions (Shorey & Snyder, 2006), it may be more pertinent for therapists to form an understanding of a client's attachment style based on a combination of direct and indirect observation of client behaviour and self-report. It would also be useful for therapists to be aware of their own attachment patterns and how these may impact on providing an approach in therapy that would be beneficial to the client.

In terms of guiding clinical therapeutic interventions for clients with psychosis, attachment theory can generate specific ideas about the types of interventions that would increase the potential for positive outcomes (Berry et al., 2007). The present study's findings would indicate that although a significant relationship was not found between client and therapist attachment styles and working alliance there may be various reasons to explain this, including the presence of other confounding variables not measured and limitations of the study. Making use of interpersonal theory it has been suggested that similarity may be more beneficial for the initial stage of therapy, although it has also been suggested that following the initial phase a non-complementary approach provides the most effective outcomes. Different types of therapy can be used to provide similarity or difference to clients' attachment style. Cognitive behavioural therapy (CBT) may be seen as a dismissing type of therapy, focusing more on symptoms rather than relationships with parents and psychodynamic therapy might be seen as a more preoccupied type of therapy, focusing on emotions and relationships (Daniel, 2006).

Recommendations for future research

In investigating what combination of therapist and clients attachment styles produce the best working alliance it may be useful in future research to

include examinations of the most effective interventions for insecure clients and how to overcome specific challenges they may bring to therapy. This could also take into account specific symptoms of psychosis and possible associated past trauma (Picken et al., 2010).

Given the complex interactions in research findings in relation to the influence of client and therapist attachment styles on the therapeutic alliance, it would be useful to complete studies with a qualitative methodology to gain richer more detailed understanding of the relationship. This could be completed using an ethnomethodology narrative approach to meaningfully explore individual clients' experiences of attachment and alliance in therapy relationships. An ethnomethodology would be focused on exploring the methods that individuals use to make sense of the social world. A narrative approach would specifically consider clients' communication of their experience or story through language, including the conveyed meaning they attach to it. Alternatively, a more behaviourally focused detailed assessment of the treatment process could be useful to consider mediating variables.

The results of this study suggest that other variables may contribute to predicting client working alliance. Therefore, as well as investigating confounding variables additional variables should be examined. These could include duration of illness and the nature of specific symptoms, as these may impact on the formation of the therapeutic alliance (Berry et al., 2008). Type of inpatient setting and length of time there could also be investigated. Based on research it may be useful to consider other aspects of the working alliance in future research, such as transference, countertransference and real relationship ratings (Gelso & Carter, 1994). Other outcome variables could be investigated such as symptom change, global functioning, interpersonal difficulties and changes in attachment behaviour. It would also be useful to consider collecting follow-up data on variables after the end of therapy to examine if any positive outcomes have been generalised to other relationships and whether they have been maintained (Bruck et al., 2006).

The current study focused on the working alliance within therapy, which has been found to influence psychotherapy outcomes (Martin et al., 2000). However, psychotherapy appears to include a combination of processes and there may be other factors present which are having an influence on results. The results of the present study showed that when the dummy coded variables were controlled therapist rated alliance significantly and positively predicted client rated working alliance. Although, therapist rated working alliance was not considered a predictor variable and this was not a predicted association it may indicate that the therapist factor is present in the therapy relationship. As previously discussed, it is also important to consider clients' context and environment in the study. Clients were inpatients with a diagnosis of psychosis and it is possible that they were not able to make use of the therapy relationship in the same way as clients in previous research. Taking clients' environment into account, explicitly as part of the analysis would be an important avenue for future research and would add further clarity to the processes of therapy.

Tyrell et al. (1999) found that dissimilarity between client and case manager attachment styles predicted a better working alliance. The present study recruited therapists but did not repeat this finding. Therefore, there would be scope for future research to further explore attachment styles and working alliance in specific other close helping relationships between clients and staff such as healthcare assistants, nurses, occupational therapists and social workers. Alternatively, future research could to continue to attempt to extend Tyrell et al.'s (1999) findings by using a prospective design and assessing client and therapist attachment styles prior to beginning therapy and matching clients and therapists and then allocating pairs to one of two groups. One group would contain therapists and clients with similar attachment styles on the preoccupied-dismissing dimension and the other group would contain participants assessed as different in attachment styles. Therapeutic alliance could be rated a number of times through the therapy process. This would allow much more control over the study and it would have the ability to predict and indicate causal patterns for future attachment styles and working alliance in therapy relationships.

Scientific implications

Attachment theory is a relatively new theoretical context to use in therapeutic matching literature. In therapy clinicians would often consider past and current client relationships in helping to understand their clients' difficulties. Therefore, by exploring attachment styles the present research brings information regularly processed by clinicians into the arena of client and therapist matching. The present study adds to scientific knowledge regarding what may or may not be useful therapist and client attachment style interactions for producing more positive working alliances; specifically that dissimilarity has not been demonstrated to be associated with better alliance. The present study also reflects the link between attachment styles and therapeutic alliance providing continued evidence of the relevance of using attachment theory to understand therapy relationships.

The current study differs from other research as few studies prior to the current one have considered both client and therapist attachment styles and both client and therapist rating of alliance. This has often been cited as a limitation of studies which the current study has addressed. Even fewer studies have examined both therapist and client attachment styles and alliance ratings with a population sample which had a primary diagnosis of psychosis. When clients with diagnoses of psychosis have been included in studies they were part of a sample with a variety of psychiatric diagnoses (Tyrell et al., 1999), whereas the current study addressed this limitation by only focusing on psychosis diagnoses.

The current study adds evidence from an inpatient sample, whilst other research has mainly used community based samples. The present research included assistant, clinical or forensic psychologists as therapists, whereas studies in this field have varied from including psychology or counselling graduates to assessing case managers. Therapists all reported using CBT as their main type of intervention. Using therapists, especially those using predominately CBT meant that the therapy was likely to be structured enough to provide valid ratings on the task and goal components of the WAI. However, although therapists all reported that CBT was their main type of intervention, it is likely that there

is some level of diversity in the use of specific techniques and therapists' style of application. This variation between therapists using the CBT model would be difficult to quantify and measure.

Wider scientific implications

In terms of wider systemic implications, given the link between attachment styles and therapeutic alliance which this study has reflected, proponents of attachment theory have emphasised the importance of psychiatric settings providing a secure base for clients to feel safe (Goodwin, 2003). This is so that clients can explore past experiences and experience sensitivity in response to distress through consistency in their environment (Farber et al., 1995). Therefore, it would be useful to extend therapists' understanding of clients' attachment styles to the psychiatric inpatient setting as a whole, by using this understanding to aid psychiatric staff in understanding and working with clients' behaviour. This knowledge of client attachment styles could also identify the level of input a client may find useful from different staff members. Attachment theory could guide physical changes within the environment and staff training in the aim to create a secure base for clients.

When considering wider scientific implications the current research related to outcomes of treatment. It aimed to extend knowledge about what can improve the outcomes of individual talking therapies as opposed to other kinds of treatment such as medication or group interventions. It adds to the broader literature about the kind of therapeutic approach and interventions that may be appropriate when working with clients with psychosis.

Scientific research adopting a quantitative methodology would aim to falsify hypotheses (Guba & Lincoln, 1994, Chapter 6), which is relevant to the findings of the current study as the main hypothesis has been falsified. However, the current study would not suggest that it's findings disproves similar findings from other research, it would indicate further research is necessary. The present research therefore adds to a larger body of scientific literature on quantitative methodology. This could be in terms of

what has been objective, valid and reliable in the study's methods and what can be improved in the design of future quantitative studies.

Reflections

I engaged in reflections throughout the research process and some of the challenges and key decision making processes are outlined below at different stages of the research.

In initially considering areas that I wanted to investigate I was drawn to the idea that there is a kind of 'truth' and reality to be found in research leading me to adopt a quantitative methodology. This idea extended to concepts of attachment theory as it appears to be relevant in in explaining much of the underlying development of individuals in how they relate with one another. I wanted to apply the theory of attachment to an area that meant it was clinically relevant and lead to positive change for clients; focusing on therapeutic outcomes appeared to be the most effective way to do this. Therapeutic alliance seemed like less of an interest for researchers compared to specific therapeutic approaches, although I felt it was important in exploring outcomes. At the same time there was a desire to complete ground breaking research and it was important to scale this down.

On approaching the research process it seemed that within many of the studies in the literature relating to the area of attachment and working alliance there was much variation in the methodology, measures used and outcomes. It seemed like a field of study that was young with large areas open to the possibility of development through further research. Initially deriving hypotheses was a challenge and felt like attempting to pin down concepts that are very dynamic, fluid and complex. I found it was key was to keep the focus and research question quite narrow.

Completing a systematic review of the literature was a key process as it illustrated that comparing studies felt quite premature due the variation between the methodologies of studies. It was one of the most challenging pieces of work to complete but it confirmed what the present study could

add to the literature base and gave me a deeper understanding about the state of the current literature. It felt like more general advances were needed in this area and the current study could add to that development.

It was an important but challenging decision to collect the data by visiting individuals on a face to face basis. It was a challenge in terms of completing the data collection within the time scale set for the research. However, if the method of collecting data had been different, such as sending assessments through the post, it is likely that fewer participants would have taken part in the study.

Ethical issues

When considering ethical issues prior to the present study, it was considered that the researcher would meet with clients in a room in the hospital off the main ward. This meant that clients could leave if they wanted and that the data collection would not be disturbed. However, the preference of ward nurses at the hospitals was to complete data collection observed by a member of staff. Practically this meant allowing extra time until a member of staff was available and led to some clients becoming suspicious about the process. This was managed by spending extra time reviewing with clients what the study was about and my role as a researcher. It may have been useful to liaise with ward nurses on duty on the day a data collection visit was arranged, although this preparation would not have been able to account for unexpected events such as changes in staffing or client activities.

Completing research within this client group was a reminder regarding the possible vulnerability of clients. Some clients were eager to take part in the research, which could have been based on being keen to talk to someone new and it was important to take extra time to be certain they understood the study and gave informed consent.

Philosophy of science

A quantitative methodology was adopted for the current study, as the researcher considered it was the most appropriate to address the present study's aims. Therefore, a positivist stance was initially considered. In research inquiry paradigms positivism methodologies would be experimental, manipulating variables and would focus on verifying hypotheses stated prior to the research (Guba & Lincoln, 1994, Chapter 6). Hypotheses would be most usefully stated as quantitative propositions which would mean they could be translated into formulas demonstrating functional relationships. The epistemological position would be that 'truth' is found when a variable can be predicted objectively and accurately across contexts and the ontological position would be that reality exists independent of researchers (Lincoln & Guba, 2000, Chapter 6).

The positivist approach can be criticised for having too narrow a view in research only focusing on a small number of variables, meaning it can miss many other variables which may influence findings (Guba & Lincoln, 1994, Chapter 6). This leads to findings being less generalisable to other contexts and also excludes consideration of meaning and motivators which could help understand findings. The objectivity of the positivist approach has been undermined because facts needed to test hypotheses exist within a theoretical framework, meaning that they are not independent (Chalmers, 1999). There is also a problem with the consideration that one can arrive at a real 'truth'. It is not possible given a set of facts, through the process of induction to arrive at a single guaranteed theory (Bem & Looren de Jong, 2006). This conclusion is what led to research aiming to falsify theories as opposed to verifying them (Popper, 1968). The positivist paradigm does not take into account the role of the researcher who cannot be invisible and is likely to interact in some way with the variables they are investigating.

Given the criticisms which can be levelled at the positivist paradigm, the researcher took the epistemological stance of post positivism which views objectivity as an ideal and replicated findings as probably being true, although still subject to falsification (Lincoln, Lynham, & Guba, 2011,

Chapter 6). Taking this stance the researcher has aimed to be more critical in explanation of results through consideration of previous knowledge and peer review. The ontological stance was based in critical realism, taking the view that there is a reality but it may never fully be understood or captured; only something that resembles reality can be gained due to it being obscured by other hidden variables (Merriam, Caffarella, & Baumgartner, 2007). The reality must be critically considered to be able to get as close as possible to grasping it (Guba & Lincoln, 1994, Chapter 6).

The researcher of the current study adopted a methodology of falsifying the hypotheses and considered alternative methods which could have addressed the hypotheses (Chalmers, 1999). Criteria used to examine the quality of research included validity in the sense of generalisability, reliability in the sense of stability and objectivity (Lincoln et al., 2011). This study attempted to be as objective as possible using a cross sectional design, while acknowledging flaws and bias within it's method. It made use of valid and reliable assessments that were chosen to best answer the hypothesis. A computer package (SPSS) was used to complete statistical analysis of the data, a method consistent with the methodology of the post positivist approach (Lincoln & Guba, 2000, Chapter 6).

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Appendices

Appendix 1. Ethics approval letters from the local Integrated Research Application System (IRAS) NHS board, University of Lincoln Ethics Committee and the research and development group of the independent healthcare organisation (anonymised)

NHS

National Research Ethics Service

Leicestershire, Northamptonshire & Rutland Research Ethics Committee 1

The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

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09 February 2011

Miss Hayley Simpson
Trainee Clinical Psychologist
Lincolnshire Partnership Foundation Trust
Unit 20, Springfield Business Park
Caunt Road
Grantham
NG31 7FZ

Dear Miss Simpson,

Study Title:	Inpatients' with psychosis and therapists' attachment styles and perceptions of working alliance.
REC reference number:	11/H0406/9

Thank you for your letter of 28 January 2011, responding to the Committee's request for further information on the above research and submitting revised documentation.

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.

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.

1. The additional word 'you' should be removed from two sentences under 'What will I have to do?' on the Patient Information Sheet so that they read:

    'We will visit you again and ask you to fill in some questions on a form to find out how you relate to other people. You will be <u>asked to</u> fill in some more questions on a form to find out how you relate to your therapist. This will take around 35 minutes.'

    'is not thought that this research will cause you harm. Some people may feel upset when they think about their relationships with other people. If you are upset while

filling out the forms then you will be <u>asked if</u> you want a break, or to stop filling out the forms. You may want to talk with staff / your keyworker.'

<u>Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.</u>

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 (PIC), management permission for research is not required but the R&D office should be notified of the study and agree to the organisation's involvement. Guidance on procedures for PICs is available in IRAS. Further advice 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).

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Protocol	7	22 December 2010
Response to Request for Further Information		28 January 2011
REC application	52616/175733/1/692	22 December 2010
Questionnaire: Working Alliance Inventory: Form T		
Questionnaire: Working Alliance Inventory: Form C		
Questionnaire: Relationship Questionnaire		
Evidence of insurance or indemnity		10 August 2010
Evidence of insurance or indemnity: Certificate of Employers" Liability Insurance		29 July 2010
Covering Letter		21 December 2010
Investigator CV		21 December 2010
Investigator CV: Academic Supervisor		22 December 2010
Participant Information Sheet: Therapist	4	21 December 2010
Participant Information Sheet: Patient	5	28 January 2011
Participant Consent Form: Therapist	4	21 December 2010
Participant Consent Form: Patient	5	28 January 2011

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:

- 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.
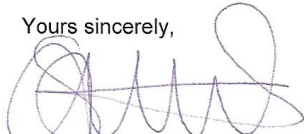
We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

11/H0406/9	Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely,

Dr Carl Edwards
Chair

Email: susie.cornick-willis@nottspct.nhs.uk

Enclosures: "After ethical review – guidance for researchers"

Copy to: Dr Mark Gresswell – University of Lincoln

National Research Ethics Service

NRES Committee East Midlands - Leicester

The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Tel: 0115 8839437
Fax: 0115 9123300

06 May 2011

Miss Hayley Simpson
Trainee Clinical Psychologist
Lincolnshire Partnership Foundation Trust
3 Corktree Crescent, London Road
Boston, Lincolnhsire
PE21 7EH

Dear Miss Simpson,

Study title:	**Inpatients' with psychosis and therapists' attachment styles and perceptions of working alliance.**
REC reference:	**11/H0406/9**
Protocol number:	**N/A**
Amendment number:	**1**
Amendment date:	**07 April 2011**

The above amendment was reviewed at the meeting of the Sub-Committee held on 06 May 2011.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Participant Consent Form: Patients	6	05 April 2011
Participant Consent Form: Therapists	5	05 April 2011
Participant Information Sheet: Patient	7	05 April 2011
Participant Information Sheet: Therapist	5	05 April 2011
Protocol	8	05 April 2011
Notice of Substantial Amendment (non-CTIMPs)	1	07 April 2011
Covering Letter		06 April 2011

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

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.

11/H0406/9:	Please quote this number on all correspondence

Yours sincerely

PP. *[signature]*

Dr Carl Edwards
Chair

E-mail: catherine.dixon@nottspct.nhs.uk

Enclosures:	*List of names and professions of members who took part in the review*
Copy to:	*Dr Mark Gresswell*

Lincoln, 6-4-2011

Dear Hayley,

Thank you for your reply to our letter of 23-3-2011.

The Ethics Committee of the School of Psychology would like to inform you that your project on "How therapist and patient attachment styles affect patient perceptions of working alliance in therapy" is:

☒ **approved**

☐ **approved subject to the following conditions:** ....

☐ **invited for resubmission, taking into account the following issue:**

☐ **is rejected. An appeal can be made to the Faculty Ethics Committee against this decision (cawalker@lincoln.ac.uk).**

☐ **is referred to the Faculty Ethics Committee. You will automatically be contacted by the chair of the Faculty Ethics Committee about further procedures.**

Good luck with your project. Yours sincerely,

Emile van der Zee, PhD

Chair of the Ethics Committee of the School of Psychology
University of Lincoln
School of Psychology
Brayford Campus
Lincoln LN6 7TS
United Kingdom

telephone: +44 (0)1522 886140
fax: +44 (0)1522 886026
e-mail: evanderzee@lincoln.ac.uk
http://www.lincoln.ac.uk/psychology/staff/683.asp

5 April 2011

Private & Confidential

Hayley Simpson
Grantham Health Clinic
St Catherine's Road
Grantham
Lincolnshire
NG31 6TT

Dear Hayley

RE: "Working alliance and attachment styles of therapists and inpatients"

Further to our recent discussions, I am writing to confirm a favourable outcome with regards to the above project.

As mentioned, I can confirm that having reviewed the proposed project, the Committee have agreed that it is ethically and methodologically sound, and as such am pleased to grant you our approval.

I will act as your key contact. Please keep us updated as to the progress of the study – we will expect a progress report by 1 October 2011 in time for our October Research and Development Committee meeting.

Please find enclosed the signed Research Agreement, as requested.

Yours sincerely

DR J ANDRES SAEZ FONSECA
Medical Director

Enc

Appendix 2. Therapist information sheet and consent form (anonymised)

University of Lincoln — The University of Nottingham

Therapist Information Sheet

Working alliance and attachment styles of therapists and inpatients

Researcher team: Hayley Simpson (Chief Investigator)
Dr Fonseca (Principle Researcher)
Dr Anna Tickle (Academic Supervisor)

We would like to invite you to take part in our research study. Before you decide if you would like to take part we would like you to understand why the research is being done and what it would involve for you.

Please read this information sheet and one of our team will answer any questions you have. This should take about 10 minutes. Feel free to talk to others about the study if you like. Part 1 tells you the purpose of the study and what it will involve for you if you take part. Part 2 gives you more information about the conduct of the study. Ask us if there is anything that is unclear or you are unsure about.

Part 1
What is the study about?

This study aims to explore how therapist and patient attachment styles impact on working alliance in therapy. Attachment can be defined as an affectionate relationship formed with a specific person, which is consistent and emotionally important. Based on early experiences of attachment in infancy, adults develop a style of developing close relationships with others, which can be referred to as their 'attachment style'.

Working alliance can be defined as the partnership between a therapist and patient working together in therapy and will be rated by patients and therapists. This partnership might be affected by both the therapist's and patient's attachment style.

We are recruiting therapists and patients who have been working together in therapy for at least 3 months. For each therapist at least three patients will be asked to take part in the study.

What will you have to do?

- You would be contacted by the chief researcher by telephone and/or email, to find out whether you would like to take part in the study.

- We would then meet you at your hospital base and ask you to sign a consent form and identify the patients you are working with. Following this you would invite your patients to take part in the study and see if they would be willing to meet the chief investigator. You will then introduce patients to the researcher so they can be given the information sheet and consent form. This will take around 10 minutes per patient.

- You will see the chief investigator again at your hospital to accompany them to find out whether patients would like to take part and to sign the consent form, which will take around 10 minutes. The chief investigator will then complete the questionnaires with patients which will take around 35 minutes per patient. Then you will complete your questionnaires. One will be about your relationships with other people and will take around 10 minutes. You will also need to complete another questionnaire for each of your patients taking part in the study. This will take around an hour in total.

- After you have completed the questionnaires there will be time to ask any questions.

- You are free to withdraw for up to 3 months after giving consent, without giving a reason.

It is not thought that this research will cause you harm. However, if you felt upset while filling out the questionnaire you will be offered a break or to stop completing the questionnaire. You may want to talk with a colleague.

It is important to consider the possible advantages and inconveniences of taking part in the research. It will take up some of your time to fill out the questionnaires. However, taking part would contribute to our understanding of relationships between patients and therapists. It may also help improve ways of working with patients in future.

Part 2
Additional information

If you want to withdraw from the study, within 3 months of giving consent, your data will be removed from the study and destroyed.

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions [07961 990 756]. Any complaints that you may have about any aspects of the research will be dealt with through your complaints policy. If you wish to complain formally, you can do this by speaking to the Head of Psychological Services.

All information collected about you during the course of the research will be kept confidential and will be stored in a locked filing cabinet, with University of Lincoln administrators. Your data will only be used during this study, viewed by the researchers and patients you are working with will not have access to your data. Personal information will be shredded within 3 months of the study completion and research data will be held for 7 years before being destroyed.

The chief investigator will provide you with written feedback of the results of the study if you wish. If you like you can also have details of your own results. It is intended to publish the results of the research as part of the chief investigator's doctoral thesis. You will not be personally identified. The University of Lincoln is sponsoring the research. The research has been reviewed by the NHS Research Ethics Committee to protect your interests. If you would like more information about the study you can contact the chief investigator [07961 990 756] or another member of the research team (Dr Fonseca, Group, Medical Director).

CONSENT FORM
Therapists

Therapist Identification Number for this trial:

Title of Project: **Working alliance and attachment styles of therapists and inpatients**

Name of Chief Investigator: Hayley Simpson

Please
initial
box

1. I confirm that I have read and understand the information sheet dated 05.04.11 (version 5) 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 am free to withdraw, for up to 3 months after giving consent, without giving any reason.

3. I would like feedback from the results of the study.

4. I agree to take part in the above study.

_____   _____   _____
Name of therapist   Date   Signature

_____   _____   _____
Name of person   Date   Signature
taking consent

When completed: 1 for therapist; 1 for researcher file (original).

Appendix 3. Client information sheet and consent form (anonymised)

UNIVERSITY OF LINCOLN · The University of Nottingham · Lincolnshire Partnership **NHS** NHS Foundation Trust

Patient Information Sheet

Working alliance and attachment styles of therapists and inpatients

Researcher team: Hayley Simpson (Chief Investigator)
Dr Fonseca (Principle Researcher)
Dr Anna Tickle (Academic Supervisor)

We would like to ask you to take part in our research study. We would like to tell you why the research is being done. We would like to tell you what would happen if you say yes. This should take about 10 minutes.

You can ask any questions you want to. You can talk to other people about the study if you like before you say yes or no. Part 1 tells you why we are doing the study and what will happen if you say yes.

Part 2 gives you more details about the study. Ask us if there is anything that you are not sure about.

Part 1
What is the study about?

- We would like to know how patients and therapists work together in therapy.

- We are looking at the relationship between patients and therapists.

What will you have to do?

- If you say yes to taking part you will be asked to sign a form. This will take around 10 minutes.

- We will visit you again and ask you to fill in some questions on a form to find out how you relate to other people. You will be asked to fill in some more questions on a form to find out how you relate to your therapist. This will take around 35 minutes.

- After you have filled out the forms there will be time for you to ask any questions.

- You can change your mind about taking part for up to 3 months after you have made your decision. You don't have to give a reason. This would not affect your care.

- It is not thought that this research will cause you harm. Some people may feel upset when they think about their relationships with other people. If you are upset while filling out the forms then you will be asked if you want a break, or to stop filling out the forms. You may want to talk with staff / your keyworker.

- It is useful to think about the possible good points and any burdens of taking part in the study. A burden may be the time it takes to fill out the forms. A good point may be to help us learn more about patients and therapists relationships. It might help other patients in the future.

- If you say yes the researchers will be given some other details about you to see if these things make a difference to the way you get on with your therapist. These details include details like: age, diagnosis, time in hospital, results of other assessments and medication.

Part 2
Extra details

- All details we have about you from the study will be kept private in a locked drawer. This will be at the University of Lincoln. Your details will only be used for this study and be seen by the researchers. Your therapist will not see the answers you give on the forms. Your personal details will be shredded 3 months after the study has ended. The forms you fill out will be held for 7 years before being destroyed.

- There are times when it would be important for the researchers to tell staff at your hospital about things you had said. This would be to keep yourself and other people safe from harm.

- If you change your mind (within 3 months of deciding to take part) and want to leave the study your answers will be taken out of the study and destroyed. If you cannot decide whether you want to take part in the study, you will be taken out of the study. Any answers we already have will be used in the study but we will not ask you any more questions.

- If you would like to, you can ask for written results of the study. If you want to you can also have details of your own results. The results will be published as part of an educational qualification. Your name will not be written for anybody else to read. The University of Lincoln is organising the research. The research has been checked by the NHS Research Ethics Committee to ensure your rights are protected.

- If you would like to know more about the study you can contact the researchers [07961 990 756]. If you would like advice about taking part in the study you could ask a member of staff, one of your healthcare team, or your hospital manager.

- If you have any problems with how you have been treated during the study these will be dealt with by your hospital complaints policy. First you should speak to the researchers who will do their best to answer your questions [07961 990 756]. If you still want to complain, you can do this by asking staff at your hospital to help you.

CONSENT FORM
Patients

Patient Identification Number for this trial:

Title of Project: **Working alliance and attachment styles of therapists and inpatients**

Name of Chief Investigator: Hayley Simpson

Please
initial
box

1. I have read the information sheet and understand what it says.
I have had time to think about what I have read.
I have had time to ask questions and they have been answered.

☐

2. I understand that taking part in the study is up to me.
I can change my mind for up to 3 months after agreeing to take part.
I do not have to give a reason for changing my mind.
My care will not be affected.

☐

☐

3. I would like written details about the results of the study.

4. I agree to take part in the study.

☐

5. I agree that other details about me can be given to the researcher.

☐

_____   _____   _____
Name of patient   Date   Signature

_____   _____   _____
Name of person   Date   Signature
taking consent

When completed: 1 for participant; 1 for researcher file (original); 1 to be kept in clinical notes.