Adult Attachment and Psychotherapy

A thesis submitted to The University of Manchester for the degree of Doctor in Clinical Psychology in the Faculty of Medical and Human Sciences

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Abstract

This thesis explores the association between adult attachment and psychological therapy by examining attachment as an outcome variable of therapy, as well as a predictor of therapy outcome. The literature review systematically explores research that has examined changes in attachment representations during psychological therapy. The purpose of the review is to enhance understanding of change processes in adult attachment and to provide empirical support to the premises of attachment theory. In spite of inconsistencies with regards to measurement and conceptualisation of attachment, the evidence suggests that attachment security increases during therapy, whereas insecurity decreases.

The aim of the empirical paper was to examine the association between global adult attachment representations, specific attachment to the therapist, working alliance and response to individual Cognitive-Behaviour Therapy (CBT). The study also investigated changes in global attachment representations and their relationship with outcome. The results indicated that clients with greater secure attachment to the therapist showed greater improvements in symptoms, whereas clients with higher avoidant-fearful attachment to the therapist demonstrated less improvement. Significant improvements in attachment avoidance and anxiety were also associated with improvements in psychological symptoms, as was working alliance. No associations between adult global attachment and outcome were found.

In paper 3, the approaches used within the current thesis are evaluated in
terms of their strengths and weaknesses. Clinical implications of the findings are discussed and ideas for future research are outlined.
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Changes in attachment representations during psychological therapy

Prepared in accordance with author guidelines for

Clinical Psychology Review

(see Appendix 1)

Word Count: 8,653
Abstract

This review systematically explores research that has examined changes in attachment representations during psychological therapy. Methodological characteristics and study findings are reviewed with the aim of enhancing understanding of change processes in attachment and to provide empirical support to the premises of attachment theory. In spite of inconsistencies with regards to measurement and conceptualisation of attachment, the evidence suggests that attachment security increases during therapy, whereas attachment anxiety and avoidance decreases.

Introduction

Attachment Theory

Attachment describes the persistent emotional bond that forms between two individuals (Bowlby, 1969, 1973). The attachment system is considered an evolutionary mechanism that promotes survival and as such is characterised by three distinct features. Firstly, it is marked by individuals wishing to remain in close contact with the person with whom they have established attachment (also known as the attachment figure). Due to this proximity maintenance, involuntary separations from the established attachment figure are experienced as distressing and often met with protest.
The second characteristic relates to the attachment figure being sought out as a ‘safe haven’ in times of distress to provide comfort, support and protection. Thirdly, the attachment figure is relied on as a ‘safe base’ from which the individual can freely explore the world.

The earliest attachment bonds are formed between infants and their primary caregivers. Based on the quality of these interactions, infants develop a unique set of expectations or mental representations of themselves and others in attachment relationships (Bowlby, 1969). Of particular importance in determining the type of working model that develops is the responsiveness of caregivers to infant’s distress (Weinfield, Sroufe, Egeland, & Carlson, 1999).

Ainsworth, Blehar, Waters and Wall (1978) developed an experimental procedure, known as the ‘Strange Situation’, to test the quality of attachment relationships through a series of brief separations and reunions with the primary caregiver. On the basis of their observations of infants’ responses, they identified three different attachment patterns: secure, insecure avoidant and insecure anxious ambivalent. Infants with a secure attachment pattern were able to use their attachment figure as a ‘secure
base’ for exploration. They were distressed by separations from the primary caregiver, but were easily comforted upon her return. In the case of insecure avoidant attachment, infants explored the environment with little reference to their caregiver. They were minimally distressed by separation and avoided or ignored the caregiver on reunion. It was concluded that infants had learned to inhibit attachment behaviours as these had been consistently ineffective in eliciting care from the attachment figure. Infants with anxious ambivalent attachment patterns, on the other hand, displayed minimal exploration. They were highly distressed by separations and were hard to soothe on reunions, displaying an ambivalent mixture of clinging behaviour and anger. These infants appeared to have caregivers who were inconsistent in their responses, so they had learned to exaggerate their negative affect in order to have their needs met. In later research, a fourth attachment category, insecure disorganized, was identified by Main and Hesse (1990) to describe children who showed lack of a coherent strategy for responding to caregivers. Their responses were often a mixture of behaviours, including avoidance and resistance, as they felt both comforted and frightened by the parent.

Although attachment theory was originally designed to explain the
emotional bond between infants and their primary caregivers, Bowlby (1979) believed that attachment representations exerted their influence beyond childhood experiences. He proposed that internal working models of self and others provided a template for subsequent relationships by guiding cognitive processes and behaviours consistent with an individual’s expectations.

**Adult attachment**

Adult attachment literature has been dominated by two traditions, each with its own conceptualisation of adult attachment and methodology for assessing attachment representations. With a background in developmental psychology, Mary Main and colleagues (Main, Kaplan & Cassidy, 1985) devised the Adult Attachment Interview (AAI), which inquires about early attachment relationships with primary caregivers. Based on interviewees’ coherence of the attachment narrative, the researchers identified three major patterns of adult attachment: secure/autonomous, dismissing (a type of avoidant attachment), and enmeshed/preoccupied (a type of anxious attachment). These three categories are analogous to the attachment classifications originally identified by Ainsworth. Two additional categories were identified later: unresolved/disorganised and cannot classify. The former is associated with loss or abuse and is characterised by a disorganised and confused narrative.
The second adult attachment tradition developed from Hazan and Shaver’s (1987) conceptualisation of adult romantic love as an attachment process, characterised by the same features as infant-caregiver attachment bonds. Analogous to the attachment patterns described by Ainsworth, the authors proposed a three-category model (secure, avoidant and anxious ambivalent) of individual differences in adult romantic relationships. In contrast to the narrative approach, they employed self-report measures to assess an individual’s conscious reports of their emotional experiences and behaviours in adult romantic relationships.

Hazan and Shaver’s (1987) model was criticised by Bartholomew (1990) who felt it was inadequate in distinguishing between two theoretically distinct forms of avoidance, called fearful-avoidance and dismissing avoidance. Instead, they proposed a four-category model, which resulted from a combination of positive and negative mental representations of the self and others. Since this model could also be conceptualised within a two dimensional space with model of self as one dimension and model of others as the other, a ‘category versus dimension’ debate began (Fraley & Waller, 1998).
Brennan, Clark and Shaver (1998) examined the validity of various self-report measures and confirmed that individual differences in romantic relationships were more appropriately organised along two dimensions: attachment anxiety and avoidance. The former appeared to reflect a fear of rejection and abandonment in close relationships, whereas the latter corresponded to discomfort in close relationships and reluctance to depend on others. In order to operationalise their framework, Brennan and colleagues developed the Experience in Close Relationship Inventory (ECR), which is currently considered the most optimal psychometric self-report measure of attachment. Individuals who report low levels of attachment anxiety and avoidance on the ECR are generally considered to have secure attachment, whereas those with high levels of anxiety and/or avoidance are considered to have insecure attachment.

**Attachment and psychopathology**

Following the development of adult attachment measures, several studies have investigated the relationship between adult attachment patterns and psychopathology. These studies have found high levels of insecure attachment among individuals with various psychological and psychiatric disorders, such as depression (e.g., Bifulco, Moran, Ball, & Bernazzani, 2002),
anxiety (Muller, Lemieux & Sicoli, 2001), eating disorders (e.g., Fonagy, Leigh, Steele, Steele, Kennedy et al., 1996), Borderline Personality Disorder (Fonagy et al., 1996) and schizophrenia (Dozier, 1990). Secure attachment on the other hand was found to be associated with psychological well-being (e.g., Dieperink, Leskela, Thuras, & Engdal, 2001). Thus, it may be concluded that insecure attachment patterns function as a general risk factor, whereas secure attachment represent a valuable protective factor.

Research has further demonstrated that attachment may play an important role in the treatment of mental health problems. Pre-treatment attachment characteristics have shown to influence individuals’ responses to psychotherapy (e.g., Saatsi, Hardy & Cahill, 2007). A recent meta-analysis indicated that insecure attachment leads to worse outcome whereas secure attachment predicts better outcome (Levy, Ellison, Scott, & Bernecker, 2011). Taken together these findings suggest that increases in attachment security may be important for long-lasting improvements of different psychopathological complaints.

**Change in attachment**

Attachment representations are hypothesised to remain stable over time because they direct individuals’ attention to consistent information,
influence their interpretations and lead them to behave in a way that elicits responses from others consistent with their expectations (Pietromonaco & Feldman Barrett, 2000). However, attachment theory also recognises that working models of self and others can be revised through interpersonal experiences which significantly deviate from the individual’s early attachment prototype (Crowell & Treboux, 1995).

Longitudinal studies investigating the continuity of attachment representations have provided evidence of moderate stability from childhood to adolescence and early adulthood (Hamilton, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000), although other studies have demonstrated significant changes in attachment styles (Lewis, Feiring, & Rosenthal, 2000; Weinfield, Scroufe, & Egeland, 2000). The latter studies also indicated that life events, such as the loss of a parent and traumatic experiences, appeared to be predictive of attachment changes. Thus, it would appear that certain life experiences can provide disconfirmation of early working models, resulting in their revision.

In addition, it has been argued that changes in the direction of increasing levels of security can occur in response to positive experiences, such as
psychological therapy. Bowlby (1988) hypothesised that psychological therapists could provide ‘corrective’ experiences by building secure relationships with clients and helping them explore and reframe their painful attachment histories. Over the past decade, there have been an increasing number of studies examining attachment changes during psychotherapy. However, at present there is an unhelpful lack of synthesis in this area. It is pertinent to establish whether psychological therapies can improve attachment representations to enhance understanding of change processes in attachment and to provide empirical support to the premises of attachment theory.

**Aim of review**

The aim of the current review is to provide a synthesis of the studies investigating changes in adult attachment representations during psychotherapy. The intention is to assess whether psychotherapy is able to provide experiences which can revise attachment in the direction of increased security and reduced insecurity. As discussed previously, attachment theory has been conceptualised according to two traditions and there is limited convergence between measures developed from each tradition (e.g., Roisman, Holland, Fortuna, Fraley, Clausell & Clarke, 2007). Therefore, the findings of each tradition will be discussed separately in this
review, in order to identify possible differences in attachment change.

**Method**

**Search procedure**

A literature search was conducted using the electronic databases CINAHL, Medline, PsycINFO, PsycARTICLES, Scopus and Web of Science. Four search sets were used which were linked with the instructions ‘AND’. The terms within each search set were linked with the instruction ‘OR’ and a wildcard asterisk was applied to search for related terms in some instances. The first search set had the term ‘attachment’. The second set related to attachment styles and used the terms ‘secur*’, ‘insecur*’, ‘*resolved’, ‘dismissing’, ‘avoidan*’, ‘preoccupied’, ‘anxi*’, ‘fearful’, ‘style’, ‘status’, ‘pattern’, ‘representation’, ‘relationship’, ‘organisation’. The third search set related to therapy and the terms used were ‘therap*’, ‘psychotherap*’, cbt, ‘intervention’ and ‘treatment’. The fourth search set related to therapy outcome and used the terms ‘change*’, ‘shift*’, ‘outcome’, ‘progress’, ‘course’, ‘response’ and ‘recovery’. The search sets were entered for searching in the title and abstract of articles, except for Web of Science. The latter did not offer searches of article abstracts and, thus, terms were entered in the ‘topic’ field.
Figure 1 shows a diagram detailing the flow of studies through the different phases of the systematic search. The database searches produced 4561 records published in the English language. The reference manager Endnote was used to remove duplicates which resulted in 2045 articles. Examination of review articles/chapters and checking of reference sections identified another 157 publications for potential inclusion. In all, 2202 records were screened, of which 2139 were immediately excluded as they did not meet inclusion criteria. The remaining 63 studies were retrieved in full and examined further. All searches revealed that no similar systematic review had previously been published.
Figure 1. Flow diagram of studies through the different phases of the systematic search. Adapted from diagram in Moher, Liberati, Tetzlaff, & Altman (2009).

**Inclusion criteria**

Studies were reviewed up to and including March 2012. Studies were included if they conformed to the following criteria: (a) they were published
in English, (b) they used a quantitative methodology, (c) the results assessed differences in attachment either before and after therapy or between a treatment and a comparison group post-therapy, (d) the sample consisted of adults (≥ 18 years), (e) who had received a form of psychological therapy and (f) an interview or self-report measure of attachment was employed. Decisions about whether articles met inclusion criteria were discussed by the first and second author. Articles were only included if both authors were in agreement.

Quality assessment

Studies included in the review were assessed for methodological quality to guide the interpretation of findings. In order to ensure a standardised method of assessment, a quality assessment tool was used (Centre for Reviews and Dissemination, 2009). Deek, Dinnes, D’Amico, Sowden, Sakarovitch et al. (2003) identified six quality assessment tools which they judged suitable to be used in systematic reviews of non-randomised intervention studies. The Effective Public Health Practice Project tool (EPHPP; Thomas, Ciliska, Dobbins, & Micucci, 2004; see Appendix 2) was chosen for the purpose of this review as it allows the evaluation of a variety of intervention study designs and provides clear guidelines for assessment. It also represents a shift towards an evaluation of the risk of bias through a
domain-based evaluation. The EPHPP has been reported to have content and construct validity (Thomas et al., 2004) and inter-rater reliability (Armijo-Olivo, Stiles, Hagen, Biondo & Cummings, 2010).

The EPHPP assesses six domains: (1) selection bias, (2) study design, (3) confounders, (4) blinding\(^1\), (5) data collection method, and (6) withdrawals/dropouts. In addition, the integrity of an intervention and the use of appropriate analysis are assessed, but these two areas do not receive a quality rating. Only the first six domains are rated strong, moderate, or weak according to a standardised guide (see Appendix 3). The guide also states that studies should be rated weak or moderate if relevant information is not reported. Those studies with no weak ratings and at least four strong ratings receive an overall rating of strong. Those with less than four strong ratings and one weak rating are considered moderate overall. Finally, those with two or more weak ratings are considered weak.

**Search Results**

**Selection of studies**

Out of 63 studies, a total of 16 met inclusion criteria. The study by Fonagy,
Steele, Steele, Leigh, Kennedy et al. (1995)\(^2\) was excluded because of insufficient information in relation to methods and results. Thus, a total of 15 publications were included in this review, with two publications originating from the same study (Lawson, Barnes, Madkins, & Francois-Lamonte, 2006; Lawson & Bossart, 2009).

**Overview of reviewed studies**

Table 1 provides an overview of studies, in date order. Studies were conducted within the USA (N = 7), Canada (N = 5) and Germany (N = 2). Sample size ranged from N = 12 to N = 188, with 6 studies including fewer than 30 participants in the intervention group. Half of the studies employed randomised controlled trial methods (RCT), including either a treatment (N = 5) or no-treatment control group (N = 2). The other seven studies used naturalistic cohort designs, with five studies using a simple before and after design and two studies including an additional control group.

The majority of studies (N = 10) investigated specific therapeutic approaches, such as CBT, which were delivered as individual therapy (N = 5), group therapy (N = 3) or couple therapy (N = 2). The therapeutic modalities used by these 10 studies derived from a variety of orientations, such as

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\(^2\) This study was published as part of a book chapter.
psychodynamic, interpersonal, cognitive-behavioural, behavioural, attachment-focused and person-centred. In contrast, therapeutic orientations were more difficult to define for the four studies that offered therapy programs because of the variety of interventions they offered, which included non-talking therapies, such as creative and sports therapy. The therapy programs delivered a range of group therapies with one study also offering individual support. The length of time patients spent in any therapy or therapy program ranged from a three-day weekend to one year. Therapy was mainly delivered within outpatient settings (N = 10), although four studies reported therapy being delivered within a residential inpatient setting.

Ten studies investigated populations with specific psychological difficulties, such as personality disorder (N = 2), Major Depression (N = 2), Post Traumatic Stress Disorder (PTSD; N = 2), attachment and interpersonal issues (N = 2), relationship problems (N = 1), Binge Eating Disorder (N = 1) and domestic violence (N = 1). Two studies included patients with a variety of psychological problems and one study examined first-time mothers from a deprived background.

All studies assessed attachment either through self-report measures (N = 9)
or interviews \((N = 5)\). Of those using interviews, three used the Adult Attachment Interview (AAI), one the Adult Attachment Prototype Rating (AAPR; Pilkonis, 1988) and another one the Bartholomew Attachment Rating Scale (BARS; Bartholomew & Horowitz, 1991). Interviews were used to place participants into attachment categories, although the AAPR and BARS also rated interview responses on continuous dimensions.

The self-report measures used varied greatly and two studies employed more than one measure. The two most popular measures were the Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994; \(N = 4\)) and the ECR \((N = 3)\), although only the secure subscale of the ECR was used in one study (Butler, Harper, & Mitchell, 2011). The other questionnaires used were the Attachment Styles Questionnaire (ASQ; Feeney, Noller, & Hanrahan, 1994), the Adult Attachment Scale (AAS; Collins & Read, 1990), the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991), the Bielefeld Partnership Expectations Questionnaire (BFPE; Pollak, Wiegand-Grefe, & Höger, 2008) and Grau’s Attachment Questionnaire (GAQ; Grau, 1999). All self-report measures were analysed on continuous dimensions, but these differed depending on the items on each measure and how the items were scored. Six studies computed the two-dimensional factors
recommended by Brennan, Clark and Shaver (1998), whereas two studies computed four variables (Muller & Rosenkranz, 2009; Travis, Biner, Bliwise, & Horne-Moyer, 2001) and one study computed only one dimension (Butler, Harper, & Mitchell, 2011). In addition, three studies transformed participants’ scores into categories (Lawson et al., 2006; Kirchmann, Steyer, Mayer, Joraschky, Schreiber-Willnow et al., 2012; Travis et al., 2001).

All studies except for one measured attachment before and after therapy, whereas Korfmacher, Adam, Ogawa and Egeland (1997) measured attachment at 6 months following therapy comparing it to a control group.
Table 1.

Description of reviewed studies.

<table>
<thead>
<tr>
<th>Authors, year &amp; country</th>
<th>Design</th>
<th>Sample, Diagnosis</th>
<th>N Therapy group</th>
<th>N Control group</th>
<th>Therapeutic approach</th>
<th>Therapy Format</th>
<th>Duration</th>
<th>Attachment measure</th>
</tr>
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<tr>
<td>Kirchmann, Steyer, Mayer, Joraschky, Schreiber-Willnow et al., (2012); Germany</td>
<td>Cohort</td>
<td>Inpatients with various diagnoses</td>
<td>188, (1-year FU: 152)</td>
<td>219 (1-year FU: 200)</td>
<td>Inpatient program, mainly psychodynamically orientated with non-talking therapies versus a non-clinical control group</td>
<td>Group</td>
<td>Md= 9 weeks, (Range 3-18 weeks)</td>
<td>BFPE: 3 categories, GRQ, RSQ (2 dimensions + secure scale)</td>
</tr>
<tr>
<td>Butler, Harper, and Mitchell, (2011); USA</td>
<td>RCT</td>
<td>Married couples with a range of difficulties</td>
<td>16</td>
<td></td>
<td>Therapy-centred (TC) and Enactment-based (EB) sessions</td>
<td>Couple</td>
<td>6 sessions (3 EB + 3 TC, vice versa)</td>
<td>ECR: One continuous secure variable</td>
</tr>
<tr>
<td>Strauss, Mestel and Kirchmann (2011); Germany</td>
<td>Cohort</td>
<td>Inpatients with BPD &amp; AVPD</td>
<td>40</td>
<td>N/A</td>
<td>Inpatient treatment program, incl. psychotherapy and non-talking therapy</td>
<td>Group</td>
<td>7 weeks</td>
<td>AAPR</td>
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<td>Study</td>
<td>Design</td>
<td>Cohort</td>
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<td>Treatment</td>
<td>N/A</td>
<td>Group Size</td>
<td>FU</td>
<td>Length</td>
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<td>Lawson and Bossart (2009); USA</td>
<td>Cohort</td>
<td>Outpatient men treated for domestic violence</td>
<td>49</td>
<td>Integrative CBT &amp; Psychodynamic Therapy</td>
<td>Group</td>
<td>17 weeks</td>
<td>AAS: 2 categories, 2 dimensions</td>
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<td>Muller and Rosenkranz (2009); Canada</td>
<td>Cohort</td>
<td>Inpatients with PTSD</td>
<td>101 (6-month FU: 61)</td>
<td>Inpatient program for PTSD versus a waiting list control group</td>
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<td>RSQ &amp; RQ: – 4 continuous variables &amp; 2 dimensions</td>
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<td>Ravitz, Maunder and McBride (2008); Canada</td>
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<td>Outpatients with Major depression</td>
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<td>Interpersonal Psychotherapy</td>
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<td>12-16 weekly sessions</td>
<td>ECR-R: 2 dimensions</td>
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<td>Tasca, Balfour, Ritchie and Bissada (2007); Canada</td>
<td>RCT</td>
<td>Inpatients with BED</td>
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<td>Psychodynamic Interpersonal Therapy (PIP) versus CBT</td>
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<td>16 weekly session</td>
<td>ASQ: 4 of 5 insecure continuous dimensions</td>
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<td>Lawson, Barnes, Madkins and Francois-</td>
<td>Cohort</td>
<td>Outpatient men treated for domestic violence</td>
<td>33 in 2006</td>
<td>Integrative CBT &amp; Psychodynamic Therapy</td>
<td>Group</td>
<td>17 weeks</td>
<td>AAS: 2 categories, 2 dimensions</td>
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<tr>
<td>Study</td>
<td>Design</td>
<td>Participants</td>
<td>Sample Size</td>
<td>Intervention</td>
<td>Treatment Duration</td>
<td>Methodology</td>
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<td>Levy, Meehan, Clarkin, Kernberg, Kelly et al (2006); USA</td>
<td>RCT</td>
<td>Outpatients with BPD</td>
<td>22 TFP, 16 DBT, 22 SPT</td>
<td>Transference-focused Therapy versus DBT and Supportive Psychodynamic Therapy</td>
<td>Individually, 1 year</td>
<td>AAI</td>
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<td>Makinen and Johnson (2006); Canada</td>
<td>Cohort</td>
<td>Couples with ‘attachment injuries’</td>
<td>24 N/A</td>
<td>Emotionally-Focused Therapy</td>
<td>Couple, 13 weeks</td>
<td>ECR: 2 dimensions</td>
<td></td>
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<tr>
<td>McBride, Atkinson, Quilty and Bagby (2006); Canada</td>
<td>RCT</td>
<td>Outpatients with Major Depression</td>
<td>27 IPT, 29 CBT</td>
<td>Interpersonal Psychotherapy (IPT) versus CBT</td>
<td>Individually, M = 17 sessions, Range: 16-20</td>
<td>RSQ: 2 dimensions</td>
<td></td>
<td></td>
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<tr>
<td>Stovall-McClough and Cloitre (2003); USA</td>
<td>RCT</td>
<td>Women with childhood-abuse-related PTSD</td>
<td>12 PE, 6 ST</td>
<td>Prolonged exposure (PE) versus skills training (ST)</td>
<td>Individually, 16 sessions</td>
<td>AAI</td>
<td></td>
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<tr>
<td>Travis, Biner, Bliwise and Horne-Moyer (2001); USA</td>
<td>Cohort</td>
<td>Outpatients with Interpersonal problems</td>
<td>29</td>
<td>N/A</td>
<td>Dynamic Psychotherapy</td>
<td>Individual</td>
<td>M=21 session</td>
<td>BARS: 4 categories, 4 continuous variables</td>
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<tr>
<td>Kilmann, Laughlin, Carranza, Downer, Major and Parnell (1999); USA</td>
<td>RCT</td>
<td>Female undergraduates with insecure attachment</td>
<td>12 (6-month FU: 9)</td>
<td>10 (6-month FU: 6)</td>
<td>Attachment-focused Therapy versus a no-intervention control group</td>
<td>Group</td>
<td>3-day weekend</td>
<td>RSQ: 4 continuous variables</td>
</tr>
<tr>
<td>Korfmacher, Adam, Ogawa and Egeland (1997); USA</td>
<td>RCT</td>
<td>Low-income 1st time mothers</td>
<td>55</td>
<td>68</td>
<td>Parenting groups and individual psychosocial support versus a no-treatment control group</td>
<td>Group, Individual</td>
<td>1 year</td>
<td>AAI</td>
</tr>
</tbody>
</table>

AAI = Adult Attachment Interview; AAS = Adult Attachment Scale; ASQ = Attachment Style Questionnaire; AVPD = Avoidant Personality Disorder; BARS = Bartholomew Attachment Rating Scale; BED = Binge Eating Disorder; BFPE = Bielefeld Partnership Expectations Questionnaire; Psychotherapy; CBT = Cognitive-Behaviour Therapy; DBT = Dialectic Behaviour Therapy; ECR = Experience in Close Relationship Inventory; FU = Follow-up; GAQ = Grau’s Attachment Questionnaire; IPT = Interpersonal Psychotherapy; PIP = Psychodynamic Interpersonal Psychotherapy; RCT =
**Study Quality**

Table 2 shows an overview of the quality assessment for each study.

(1) All 14 studies were considered at high risk of selection bias and rated ‘Weak’ in this domain. Many studies did not report their referral source, selection procedure and/or the number of selected individuals who agreed to participate. Those who reported this information recruited participants through self-referral or non-systematic referral by professionals.

(2) With regards to study design, the assessment tool highlighted that many studies using a randomised methodology did not describe their process of random allocation, although according to the EPHPP assessment guidelines this did not impact on the rating in this domain.

(3) Cohort studies were automatically rated ‘weak’ with regards to their control over confounding variables, except for Kirchmann et al. (2012) who used statistical analyses to control for confounders. Three RCTs were also rated weak in this domain because they did not report whether differences existed between groups.

(4) The quality of studies may have been further compromised by detection and reporting biases. None of the studies using self-report measures
described whether participants completed questionnaires by themselves or whether they were aware of the purpose of the study. Two studies also did not report whether the assessors they used to rate interviews were blind to the purpose of the study.

(5) The measures used to assess attachment were generally considered valid and reliable. However, Kilmann et al.’s (1999) study was rated ‘weak’ as the authors reported low internal consistency (0.4) for the secure subscale of the RSQ. Butler, Harper, and Mitchell (2011) and Lawson and Bossart (2009) computed one and two dimensions, respectively, from measures that were originally designed to assess more. Butler and colleagues also did not report reliability for their adapted version of the ECR. Muller and Rosenkranz (2009) used composite scores of the RSQ and RQ, but did not explain why. For those studies that used categorisation (Lawson et al., 2006; Kirchmann et al., 2012; Travis et al., 2001), precision of measurement may have been an issue (Fraley & Waller, 1998).

(6) Attrition rates were considered problematic (> 40%) for one study during therapy (Levy et al., 2006) and for two studies during follow-up (Kirchmann et al., 2012; Kilmann et al., 1999). Three studies did not report withdrawals or drop-outs.
(7) Eleven studies received an overall rating of ‘Weak’, indicating a high risk of bias. However, many studies were rated weak because they did not report all the information assessed by the EPHPP. Hence, the overall ratings may not be representative of the quality of the studies and should be considered with care.

(8) The integrity of interventions appeared to be a problem for the four studies that offered treatment programs because of the range of interventions they offered. Korfmacher et al.’s (1997) study demonstrated exceptionally poor integrity as participants used the intervention differentially depending on their attachment representations. The study also used ‘para-professionals’ with limited experience and training.

(9) A common statistical problem across studies was the failure to correct for family-wise error rates in multiple comparisons. Also none of the studies tried to control for attrition bias by conducting an intention to treat analysis. Serious concerns were identified with regards to the presentation of results and statistical analyses of two studies (Butler, Harper, & Mitchell, 2011; Muller & Rosenkranz, 2009). For both studies, there appear to be inconsistencies in the reported means and standard deviations.
Table 2.

*Quality ratings (weak, medium or strong) for the six domains of the EPHPP and the overall quality rating.*

<table>
<thead>
<tr>
<th>Study reference</th>
<th>Selection bias</th>
<th>Study Design</th>
<th>Confounder</th>
<th>Blinding</th>
<th>Measures</th>
<th>Drop-outs</th>
<th>Overall</th>
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<tr>
<td>Tasca et al. (2007)</td>
<td>W</td>
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<td>Levy et al.</td>
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<tr>
<td>Study</td>
<td>Strength</td>
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<td>Travis et al. (2001)</td>
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<tr>
<td>Kilmann et al. (1999)</td>
<td>W</td>
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FU = Follow-up; M = Medium; NR = not reported; S = Strong; W = Weak

**Results**

Results are presented separately for each adult attachment paradigm as it is possible that they may be measuring different aspects of attachment (e.g., Roisman et al., 2007).
**Narrative Approach**

Of the three studies which employed the AAI two demonstrated significant changes in attachment during therapy. Levy et al. (2006) compared Transference-Focused Psychotherapy (TFP) to Dialectic Behaviour Therapy (DBT) and Supportive Psychotherapy (SPT) in an RCT for patients with Borderline Personality Disorder. Following one year of TFP, seven out of 22 patients (32%) were classified as securely attached compared to only one patient (5%) at the beginning. However, attachment status did not change from insecure to secure for any of the patients receiving DBT or SPT. Nevertheless, it should be noted that the results may have been biased by attrition rates, which were particularly high in the DBT group (45%).

A significant increase in attachment security was also found in an RCT by Stovall-McClough and Cloitre (2003), who compared Prolonged Exposure (PE) to skills-training in patients with childhood-related PTSD. Across both interventions, there was a 39% increase in the number of participants classified with secure attachment following 16 sessions of therapy. Furthermore, eight out of 13 participants (62%) with unresolved attachment lost their unresolved attachment classification. When the two interventions were compared, it appeared that PE had been significantly more effective in
reducing unresolved attachment scores than skills-training. Although the authors controlled for pre-attachment scores in their analyses they did not report whether participants in the two groups differed on any other important variables with could have had an undue influence on the results, such as gender, age and significant life events.

In contrast to the above studies, Korfmacher et al. (1997) did not find any differences in attachment status between a control group and mothers who had received group parenting in conjunction with individual psychosocial support. However, the intervention program had been designed to be flexible and responsive to the mothers’ individual needs and the results showed that mothers had accepted different forms of individual assistance, depending on their internal attachment working models. Thus, the authors themselves acknowledged that their non-significant findings were not surprising.

**Self-report approach**

**Individual and group therapy**

Kilmann et al. (1999) was one of the first studies to use a self-report measure to investigate change in attachment following a psychological intervention. The authors designed a specific 3-day attachment-focused intervention in
order to prevent relationship difficulties in undergraduate students with insecure attachment. The results showed non-significant effects immediately post-treatment, which could have been due to the short intervention period. However, six months after the intervention, participants reported significantly greater attachment security than the control group. Although these results could have been an artefact of methodological issues (e.g., attrition > 40%), they might also reflect the time it took for attachment changes to take place as individuals adapted their attachment behaviours and engaged in ‘corrective’ relationship experiences.

Changes in secure attachment have also been observed in another sample of individuals with interpersonal difficulties. Following an average number of 21 sessions of dynamic psychotherapy, Travis et al. (2001) showed that 7 out of 29 patients (24%) changed from an insecure to a secure attachment category. Although this constituted a significant difference, it should be noted that 12 patients also changed from one insecure to another insecure attachment category, which may reflect issues with the precision of the classification method. However, when attachment was scored as continuous variables, the results from the classification were confirmed and also showed a significant decrease in fearful attachment. Nevertheless, these results need
to be interpreted with caution because of the lack of control over confounding variables.

Somewhat more mixed results were obtained by Lawson et al. (2006), who investigated an integrative CBT and Psychodynamic group approach to treat men with a history of domestic violence. Following the intervention, thirteen out of 33 (39%) men could be classified as secure, yet no significant improvements were found for the two attachment dimensions of anxiety and avoidance. Nevertheless, when the researchers (Lawson & Bossart, 2009) published their data three years later with 16 additional participants, a moderate ($d = 0.54$) and a large ($d = 1$) effect were evident for the decreases in attachment anxiety and avoidance, respectively$^3$.

Two studies have investigated attachment changes in patients with Major Depression following Interpersonal Psychotherapy (McBride et al., 2006; Ravitz, Maunder & McBride, 2008). Both found a significant reduction in attachment anxiety, but only Ravitz and colleagues also showed a significant reduction in avoidance. The difference in findings may be explained by Ravitz and colleagues using a measure with better psychometric properties and a

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$^3$ Lawson and Bossart (2009) did not analyse change in attachment as this was not the aim of the study. Effect sizes were calculated from the means and standard deviations presented in the study.
much larger sample. However, McBridge et al.’s study benefitted from an RCT design, which involved the comparison of IPT with CBT. Their results showed that both approaches were similarly effective in reducing attachment anxiety.

Tasca et al. (2007) also conducted an RCT to compare CBT with Psychodynamic Interpersonal Psychotherapy (PIP). Both approaches were delivered in a 16 session group format to patients with Binge Eating Disorder. Following both interventions, significant decreases with medium to large effect sizes were found on the four insecure subscales of the ASQ. Similar to McBridge et al. (2006), no significant differences in attachment changes were evident between CBT and a PIP.

**Inpatient therapy programs**

Inpatient treatment programs were investigated by three studies, two of which demonstrated significant findings. Mueller and Rosenkranz (2009) examined changes in attachment in inpatients with PTSD following a varied eight-week program. They also employed a waitinglist control group in order to control for the confounding effects of time. The results showed a significant increase in attachment security over the course of treatment and a significant decrease in the underlying dimension of attachment anxiety,
whereas no significant changes were found on these variables for the waitinglist group. For the dimension of attachment avoidance there was a significant reduction over time, but the two groups did not differ in the level of reduction they displayed. Furthermore, the positive changes on the secure and the anxiety variable were maintained over a 6-month follow-up period, although no follow-up data was available for the waitinglist group. The results from this study need to be considered with extreme caution given that the presentation of results was inconsistent, i.e., the reported means differ across the table, graphs and in the text.

In contrast to the above study, Strauss, Mestel and Kirchmann (2011) demonstrated significant reductions in attachment security and increases in attachment avoidance over a 7-week program for women with Borderline Personality Disorder (BPD) and Avoidant Personality Disorder. These findings are not surprising, however, given the short treatment period in relation to the complexity of needs of the patient group. Levy et al. (2006; see section on narrative approach), who recruited a similar patient group, offered a course of one year of therapy, and national clinical practice guidelines in the UK (National Institute for Health & Clinical Excellence, 2009) recommend a minimum treatment period of three months for patients with Borderline
Personality Disorder. Furthermore, Strauss and colleagues measured attachment via the AAPR, which was originally developed as a personality measure.

One year later, the same research group published a study in which they examined the effects of a treatment program, similar to Strauss, Mestel and Kirchmann’s (2011), on the attachment representations of patients with a variety of diagnoses. Contrary to Strauss and colleagues’ findings, Kirchmann et al. (2012) showed significant improvements in attachment on three different attachment measures, in comparison to a non-clinical control group. At a categorical level, there was a 17% increase in the number of patients classified as securely attached following the 9-week inpatient treatment, whereas the control group showed a 1% decrease. When reliable change indices were calculated for the two attachment dimensions, 25% and 7% of patients showed a clinically relevant reduction in attachment anxiety and avoidance, respectively, on the GAQ, compared to 7% and 3% of controls, respectively. Similar results were obtained for the RSQ. When the researchers controlled for a variety of confounders, small to medium effect sizes remained, with the biggest effect found for GAQ anxiety. At 1-year follow-up, the attachment improvements remained stable for the GAQ, but
decreased for the RSQ, although small treatment effects still existed.

**Couple therapy**

Two studies investigated changes in attachment during couple therapy. The results by Butler, Harper, & Mitchell (2011) indicated large improvements in attachment security for couples ($d = 1.13$ for men and $d = 1.26$ for women) receiving three sessions of an Enactment-based approach followed by three sessions of a Therapist-centred approach. Small to medium effects were also found for men ($d = 0.27$) and women ($d = 0.51$), respectively, who received the Therapist-Centred approach first followed by the Enactment-based approach. In contrast, Makinen and Johnson (2009) did not find any significant improvements in attachment following 13 weeks of Emotionally-Focused Therapy for couples with attachment injuries. These results are somewhat surprising given the focus of the intervention on changing attachment processes and the longer treatment period. However, differences in findings may be explained by the use of a different measure of attachment. Whilst Butler and colleagues used an adapted version of the ECR which comprised a single dimension of attachment security, Makinen and Johnson employed both attachment dimensions of the ECR.

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4 The Enactment approach is characterised by direct interactions between couples that are carefully guided by the therapist, whereas in Therapist-Centred sessions interactions are channelled through the therapist, who...
Summary of results from self-report approach

In summary, there is evidence to suggest that client attachment security increases during therapy. Of the seven studies which measured attachment security, five studies showed increases in attachment security at post-treatment and two of these demonstrated that improvements were maintained at follow-up. In addition to the assessment of secure attachment, ten studies assessed changes in insecure attachment dimensions. Of these, six studies demonstrated improvements in attachment anxiety at post-treatment and two out of three demonstrated the maintenance of improvements at follow-up. Furthermore, six out of ten studies showed significant reductions in attachment avoidance, although for one of the studies the reduction did not significantly differ to a control group. One out of two studies showed that changes in attachment avoidance were maintained at follow-up. Three of the four studies that did not show significant improvements suffered from small sample sizes and one used a complex patient group.

Discussion

This review provides a synthesis of the research that examines change in adult attachment during psychological therapy. In doing so, the review makes interpretations and gives direct instructions.
distinguished between two traditions in the adult attachment literature which each have developed their own individual conceptualisation and measurement of adult attachment. The review identified three studies which assessed changes in attachment according to the narrative approach developed by Main, Kaplan and Cassidy (1985) and 11 studies which employed self-report measures based on Hazan and Shaver’s (1987) conceptualisation of adult romantic love as an attachment process.

Consistent with the premise of attachment theory, the large majority of studies reviewed in this paper (11 out of 14) showed some form of improvement in attachment representations following therapy. Specifically, there was some evidence to suggest that clients experienced increases in secure attachment during therapy, whether attachment was assessed through the narrative or the self-report approach. There also appeared to be evidence to suggest reductions in attachment avoidance and anxiety, although changes in anxiety appeared to be more consistently detected by studies measuring the underlying anxiety dimension. One study from the narrative tradition further demonstrated significant change in unresolved attachment (Stovall-McClough & Cloitre, 2003). Results from three studies which included follow-up periods suggested that changes in attachment
were maintained at six and 12 months after therapy, although Kirchmann et al. (2012) found a slight decrease at 12 months.

Improvements were achieved across different settings (i.e., inpatient and outpatient), different patient groups and different interventions. With regards to the latter, even therapies with less emphasis on the therapeutic alliance and childhood experiences, such as CBT, still showed improvements (e.g., McBridge et al., 2006; Tasca et al., 2007). One exception was the finding that clients in receipt of DBT, a third generation CBT approach, did not show any changes (Levy et al., 2006). Whilst this could have been an artefact of the large attrition rates during DBT, it might also have been related to the narrative method of assessment. It is possible that self-report measures of attachment, which rely on conscious awareness, may be more amenable to change through cognitive interventions than individuals’ attachment narratives. Furthermore, evidence from two studies suggested that change may not occur if interventions were too brief overall, i.e. a few days (Kilmann et al., 1999), or too brief for client groups with more complex and enduring needs (Strauss et al., 2011).

Significant findings did not appear to be a function of study quality as findings were consistent across studies with different levels of quality.
ratings. Of the three studies which received the moderate ratings of study quality, two demonstrated significant reductions in both attachment dimensions (Kirchmann et al., 2012; Tasca et al., 2007) and the third showed significant reductions in attachment anxiety (McBridge et al., 2006).

**Limitations of this review**

The quality assessment highlighted considerable methodological limitations for the majority of studies. Eleven studies received an overall quality rating of ‘weak’, indicating a high risk of bias, which limits the conclusions that can be drawn. Common methodological issues included study designs which lacked control over confounding variables, such as age, gender and significant life events (e.g., Weinfield, Scroufe, & Egeland, 2000). Also, none of the studies reviewed here appeared to have representative samples as most studies recruited participants through self-referral or non-systematic referral by professionals. This may have limited the generalisability of significant study findings.

However, it should be noted that according to the assessment guidelines many studies were rated ‘weak’ methodologically because they did not report all the information assessed by the quality assessment. There is evidence to suggest that failure to report a method does not necessarily
mean that it has not been used (Soares, Daniels, Kumar, Clarke, & Scott, 2004). Therefore the current assessment tool may have underestimated the quality of included studies. Another issue regarding the quality assessment pertains to its reliability as it was only conducted by one researcher.

Further difficulties in synthesising the information arose from differences in the conceptualisation and measurement of attachment. For example, the study by Lawson et al. (2006) illustrated how remarkably different results could be obtained by using different scoring methods. This emphasises the need for a common method of assessing adult attachment in order to enable the comparison of findings across the literature.

Despite these limitations, the current review successfully achieved the aim of providing a synthesis of the studies investigating changes in adult attachment representations during psychotherapy. Furthermore, the review has implications for clinical practice and provides guidance for future research in the area.

**Clinical implications and future research**

Given the strong association between insecure attachment representations and psychopathology, improvements in attachment may enhance
individuals’ psychological resources to cope with life stressors, leading to long-lasting improvements in psychological distress. To date only a small number of studies have investigated this premise, but they seem to suggest a significant relationship between change in attachment representations and improvements in psychological symptoms (Mueller & Rosenkranz, 2008; Lawson & Bossart, 2009; Tasca et al., 2007). Thus, increasing levels of secure attachment may be an important goal of psychological therapy and attachment may be used as a potential measure of therapy outcome.

The relatively small number of studies that was identified during this comprehensive systematic search highlights the great need for further research in this area. Future studies would benefit from controlling confounding variables by employing a control group, ideally as part of a randomised controlled design. In order to allow for the comparison of findings across the literature, future research should employ a common measure of attachment based on the two-dimensional model recommended by Brennan, Clark and Shaver (1998). The current review identified only two studies which assessed changes in attachment in CBT. It would be important to extend understanding of attachment changes in this approach, given that CBT constitutes the predominant therapeutic approach in the UK due to its
strong evidence-base for a range of common mental health problems.

Conclusion

This review indicates that attachment security increases during therapy, whereas attachment anxiety and avoidance decreases. However, at present more robust research is required to establish whether study findings can be attributed to treatment effects or may be explained by confounding variables.

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Attachment, working alliance and response to psychological therapy

Prepared in accordance with author guidelines for the

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(see Appendix 5)

Word Count: 6,615
Abstract

Over the past couple of decades, attachment theory has provided a useful framework for understanding different aspects of psychotherapy processes. In particular, it has been argued that expectations derived from previous attachment relationships may impact on response to therapy. OBJECTIVE: The aim of the present study was to examine the association between global adult attachment representations, specific attachment to the therapist, working alliance and response to individual Cognitive-Behaviour Therapy (CBT). The study also investigated changes in global attachment representations and their relationship with outcome. DESIGN & METHOD: Using a simple cohort design, 58 participants were recruited from primary care psychological services, of which 16 participants completed therapy. Participants completed a self-report measure of adult attachment (Experience in Close Relationship Inventory) and a therapy outcome measure (Clinical Outcomes in Routine Evaluation–Outcome Measure) at the beginning and at the end of therapy. In addition, they completed the Client Attachment to Therapy Scale and Working Alliance Inventory after session three. RESULTS: Clients with greater secure attachment to the therapist showed greater improvements in symptoms, whereas clients with higher avoidant-fearful attachment to the therapist demonstrated less
improvement. Significant improvements in attachment avoidance and anxiety were also associated with improvements in psychological symptoms, as was working alliance. No associations between adult global attachment and outcome were found. CONCLUSION: Relationship-specific measures of attachment and changes in global attachment appear to be better predictors of outcome than pre-treatment global attachment.

Practitioner points:

- Attachment insecurity is associated with psychological problems.
- Client attachment characteristics do not appear to influence working alliance or psychotherapy outcome. Instead, therapists are advised to focus on building a secure attachment relationship and therapeutic alliance with clients.
- CBT may lead to improvements in attachment representations and improvements in attachment security are associated with better outcomes.
- The small number of participants who completed therapy limited the statistical power of the current study.
- Changes in attachment cannot be fully attributed to CBT due to the simple cohort design of the study.
**Introduction**

Attachment theory (Bowlby, 1973) posits that early interactions with primary caregivers lead to the development of mental representations that guide expectations about the self and others in social relationships. Bowlby (1988) believed that these mental representations remained important throughout the life span. Growing consensus in the adult attachment literature suggests that attachment representations in adulthood can be conceptualised in terms of two dimensions: attachment anxiety and attachment avoidance (Brennan, Clark & Shaver, 1998). Anxiety reflects a fear of rejection and abandonment in relationships, whereas avoidance corresponds to discomfort in close relationships and reluctance to depend on others. Individuals who report low levels of attachment anxiety and avoidance are generally considered to have secure attachment, whereas those with high levels of anxiety and/or avoidance are considered to have insecure attachment.

**Attachment and working alliance**

Several theorists have argued that individual differences in adult attachment representations may influence processes in psychotherapy (e.g., Shorey & Snyder, 2006), such as the development and the quality of the therapeutic
working alliance. Results from a recent meta-analysis (Diener & Monroe, 2011) and a systematic review (Smith, Msetfi & Golding, 2010) indicated that individuals with greater attachment security displayed stronger working alliances than individuals with attachment insecurity. However, when Smith and colleagues reviewed research findings by attachment dimension (i.e., anxiety and avoidance), they identified great inconsistencies in the literature and concluded that there was not sufficient evidence to support a significant relationship between attachment dimensions and working alliance.

One possible explanation for the inconsistent findings is that psychotherapy processes may also be influenced by attachment experiences specific to the therapist. To this end, Mallinckrodt, Gantt and Coble (1995) developed the Client Attachment to Therapist Scale (CATS) which yields three subscales: Secure, Avoidant-Fearful and Preoccupied-Merger. The latter subscale is similar to the construct of attachment anxiety, whilst the Avoidant-Fearful subscale measures aspects of attachment avoidance and anxiety. Studies using the CATS to investigate the relationship between attachment towards the therapist and working alliance are still quite modest in number. However, they suggest that secure attachment towards the therapist is strongly associated with better working alliance, whereas avoidant-fearful
attachment is strongly associated with poor working alliance (Fuertes, Mislowack, Brown, Gur-Arie, Wilkinson, & Gelso, 2007; Janzen, Fitzpatrick and Drapeau, 2008; Mallinckrodt, Porter & Kivlighan, 2005; Romano, Fitzpatrick, & Janzen, 2008; Sauer, Anderson, Gormley, Richardson, & Preacco, 2010).

**Attachment and response to psychotherapy**

Given that working alliance has emerged as a consistent predictor of psychotherapy outcome (e.g., Horvath, Del Re, Flückiger, & Symonds, 2011), the above findings have led researchers to suggest that attachment orientations may also be reflected in clients’ responses to therapy (e.g., Mikulincer & Shaver, 2007). An increasing number of studies have investigated this premise and a recent meta-analysis (Levy, Ellison, Scott, & Bernecker, 2011) of 14 studies concluded that higher attachment security was associated with fewer symptoms following psychotherapy. However, it should be noted that this meta-analysis did not control for baseline levels of symptoms and the results may thus be confounded by the well-established relationship between attachment and psychopathology (see Shorey & Snyder, 2006 for a review).

Studies that controlled for the influence of pre-treatment symptoms on the
association between attachment and outcome have reported somewhat inconsistent findings. A small number of studies have found that secure clients show greater improvements in functioning and symptoms than clients with attachment avoidance and anxiety (Meyer, Pilkonis, Proietti, Heape, & Egan, 2001; Ogrodniczuk, Piper, McCallum, Joyce, & Rosie, 2002; Saatsi, Hardy, & Cahill, 2007). A slightly greater number have reported that either attachment anxiety or attachment avoidance is related to outcome (Byrd, Patterson & Turchik, 2010; Forbes, Parslow, Fletcher, McHugh, & Creamer, 2010; Joyce, Ogrodniczuk, Piper, & Sheptycki, 2010; Reis & Greyner, 2004; Stalker, Gebotys, & Harper, 2005), providing partial support for the above hypotheses. Still others, however, have reported non-significant findings (Kanninen, Salo & Punamaki, 2000; Kirchmann, Mestel, Schreiber-Willnow, Mattke, Seidler et al., 2009; Ravitz, Maunder, & McBride, 2008; Sauer et al., 2010; Strauss, Kirchmann, Eckert, Lobo-Drost, Marquet et al., 2006).

Whilst it has been argued that inconsistencies in the literature may be partly explained by the use of different measures of attachment (e.g., Daniel, 2006), it is also possible that pre-treatment attachment may not be the most reliable predictor of outcome. A growing body of research has provided evidence that attachment security increases during therapy, whereas
attachment insecurity appears to decrease (e.g., Ravitz, Maunder, & McBride, 2008). Thus, changes in attachment representations may be more relevant for predicting treatment outcome than pre-treatment attachment. To date only a small number of studies have investigated this premise, but they seem to suggest a significant relationship between change in attachment representations and symptoms change (Mueller & Rosenkranz, 2008; Lawson & Bossart, 2009; Tasca, Balfour, Ritchie, & Bissada, 2007).

To the author’s knowledge there is also only one published study which has used attachment towards therapist as a predictor of outcome. Sauer et al. (2010) found that secure attachment to therapist was significantly associated with greater reduction in distress, whereas global attachment anxiety and avoidance were not related to change in distress.

The present study sought to extend understanding of the relationship between attachment, working alliance and psychotherapy outcome by employing a global and a relationship-specific measure of attachment. The study also aimed to contribute to the growing evidence on change in attachment during psychotherapy and to examine the impact of change on outcome. In line with current recommendations, the study uses a two-
dimensional measure of adult attachment, whereas attachment towards the therapist is assessed by the three subscales of the CATS. The current study uses Cognitive Behaviour Therapy (CBT) to add to the modest number of studies that have investigated the above attachment processes in this approach. It would be important to have a better understanding of the influence of attachment on CBT, given that CBT constitutes the predominant therapeutic approach in the UK due to its strong evidence-base for a range of common mental health problems.

**Hypotheses**

1. Global attachment avoidance and anxiety will be significantly positively correlated with mental health symptoms at baseline.

2. Both global attachment and attachment to therapist will be associated with working alliance, but attachment to the therapist will be a better predictor of working alliance than global attachment avoidance and anxiety.

3. There will be significant improvements in mental health, global attachment anxiety and avoidance following therapy.
4. Improvements in mental health will be associated with global attachment, change in global attachment, attachment to the therapist and working alliance.

5. Specific attachment to the therapist and working alliance will be better predictors of improvements in mental health than global attachment.

Methods

Participants

Fifty-eight participants were recruited from four primary care psychological therapy services in the North West of England, UK. To be included in the study, participants had to have a reasonable level of English and commence Cognitive Behaviour Therapy (CBT) at the above services between June 2011 and April 2012.

Measures

Clinical Outcomes in Routine Evaluation – Outcome Measures (CORE; Evans, Mellor-Clark, Margison, Barkham, Audin et al., 2000; see Appendix 6)

The CORE is a 34-item self-report questionnaire designed as an outcome measure for psychological therapies. It is used extensively in the UK and is considered particularly suitable for measuring common mental health problems in primary care (Centre for Health Economics, 2009). It covers the
domains of subjective well-being, problems/symptom and functioning. It also comprises six items that measure risk to self and others, but Lyne, Barrett, Evans and Barkham (2006) suggested that the 28 non-risk items provide the best factor structure. Thus the 28-item scale is used in the present study. Items are rated on a 5-point Likert scale ranging from 0 (not at all) to 4 (all the time). The reliable change index is 0.5 points and the clinical cut-off is a mean score of 1. Evans et al. (2002) reported good internal consistency (0.75 – 0.95) and one week test-retest reliability (0.87 – 0.91). Good convergent validity (Cahill, Barkham, Stiles, Twigg, Hardy et al., 2006) and discriminant abilities (Pirkis, Burgess, Kirk, Dodson, Coombs et al., 2005) have also been demonstrated. In the present study, Cronbach’s alpha for the 28 non-risk items was 0.93 at baseline and 0.97 at the end of therapy.

*Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998; see Appendix 7).*

The ECR is a 36-item self-report measure of adult attachment representations, which assesses feelings and experiences within the context of romantic relationships. It comprises two 18-item subscales, Avoidance and Anxiety, which are widely regarded as the two principal dimensions of adult attachment. Items on the two subscales are rated on a 7-point Likert scale ranging from 1 (disagree strongly) to 7 (agree strongly), with higher scores
reflecting more insecure feelings about close relationships. Multiple studies support both the reliability and validity of the ECR subscales (see Mikulincer & Shaver, 2007 for a review). In the present study, internal consistency estimates for attachment avoidance and anxiety at baseline were 0.94 and 0.92, respectively, and 0.92 and 0.91, respectively, at the end of therapy.

Working Alliance Inventory – Client Version (WAI; Horvath & Greenberg, 1989; Appendix 8).

The WAI is a 36-item self-report measure of clients’ perspective on the quality of the therapeutic working alliance. It comprises three subscales (Bonds, Goals, and Tasks), but factor analysis suggests that the total scale is the most relevant variable (Tracey & Kokotovic, 1989). Thus the total scale is used in the present study. Items are rated on a 7-point Likert scale ranging from 1 (never) to 7 (always), with higher scores reflecting a stronger working alliance. The WAI has demonstrated strong internal consistency (α = 0.93; Horvath & Greenberg, 1989) and good concurrent validity (Tichenor & Hill, 1989). In the present study, the WAI yielded an internal consistency estimate of 0.95.

Client Attachment to Therapist Scale CATS; Mallinckrodt, Gantt & Coble, 1995; see Appendix 9).
The CATS is a 36-item self-report measure used to assess the therapeutic relationship from the perspective of attachment theory. It comprises three subscales: Secure (14 items), Avoidant-Fearful (12 items), and Preoccupied-Merger (10 items), which are rated on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Internal consistency estimates ranged from 0.64 to 0.78 for Secure, 0.63 to 0.83 for Avoidant-Fearful, and 0.81 to 0.82 for Preoccupied-Merger. Test-retest reliability collected over 2 to 5 weeks was 0.84 for Secure, 0.72 for Avoidant-Fearful, and 0.86 for Preoccupied-Merger. Concurrent validity was also demonstrated by Mallinckrodt, Porter and Kivlighan (2005). In the present study, internal consistency estimates for the Secure, Avoidant-Fearful, and Preoccupied-Merger subscales were 0.86, 0.78, and 0.89, respectively.

**Procedure**

Patients were invited to take part in the study by their therapist at the first appointment and/or by receiving information in the post prior to attending their first appointment. Participants were asked to complete questionnaires at three different time points. At the beginning of therapy, participants received the CORE and ECR with instructions to complete these before the second therapy session. In line with previous research (e.g. Sauer et al.,
2010), the WAI and CATS were administered after session three to be completed before session five. The CORE and ECR were re-administered at the end of therapy, i.e. after the second-last or last therapy session. Participants completed all questionnaires by themselves and returned them to the researcher by post. Participants who completed all three questionnaire sets received £5 as reimbursement.

Figure 1 shows a flow diagram of the number of participants that completed each part of the study. Of the 82 clients who showed an initial interest, 58 (71%) completed the first questionnaire set and of these 37 (64%) completed the second set. Sixteen participants (28%) had finished therapy by the end of the data collection period and completed the final questionnaire set. Five participants did not complete the first and/or second questionnaire sets within the specified timeframes.
82 clients indicated an interest and gave consent to be contacted

74 clients received the 1st questionnaire set (consent form, CORE and ECR)

58 clients returned the questionnaires with a signed consent form

42 participants received the 2nd questionnaire set (CATS and WAI)

37 participants completed the CATS and WAI

16 participants completed the final questionnaire set (CORE and ECR)

- 6 clients were not contactable
- 2 withdrew consent

- 16 clients did not return the 1st questionnaires

- 8 participants disengaged from therapy
- 2 did not attend the 1st session
- 2 - therapist on long-term leave
- 2 moved out of area
- 1 was referred to a different service
- 1 had not yet had 3rd session

- 3 participants were not given questionnaires by therapist
- 2 did not return the 2nd questionnaires

- 9 participants remained in therapy at end of study
- 6 disengaged from therapy
- 2 were referred to a different service
- 4 - therapist on long-term leave

Figure 1. Flow diagram of participants through the different phases of the study

Statistical analyses and data screening

All variables were checked for violations of parametric test assumptions which revealed positive skewness for the CATS preoccupied subscale and the
gain scores for ECR attachment anxiety. Both variables were subjected to log transformations which resulted in normal distributions. Pearson correlation coefficients were conducted to establish associations between relevant variables. A significant outlier was identified (e.g., Cook’s distance = 1.46) for the correlation between working alliance and symptom change. Therefore, correlations between the two variables are reported with and without the outlier. No outliers or violations of test assumptions were identified for any of the simple or multiple regression analyses that were performed. Predictors for the regression analyses were entered using a forced entry method, with one predictor per 10 participants to ensure sufficient power (Field, 2003). Adjusted R² values instead of normal R² are reported for each regression model to improve the generalisability of models. Furthermore, repeated t-tests were conducted to assess changes in symptoms and global attachment dimensions over time. The sizes of these effects were reported using Cohen’s d.

**Results**

**Participant characteristics**

Participants comprised 22 males and 36 females with a range of mental health problems. Participants’ ages ranged from 18 to 74 years (M = 40.07,
SD = 13.59). The majority of participants described their ethnicity as White British (97%), with a small number as White European (3%). Forty-five per cent of participants were in employment, 41% were unemployed or in receipt of incapacity benefits, 9% were retired and 3% were students. Educational levels included GCSEs/O-Levels (36%), A-Levels (10%) and University degrees (28%). Seven per cent reported that they did not complete secondary school and another 7% that their highest level of education was an NVQ or Apprenticeship. Almost half of participants (47%) reported being married or partnered, 35% indicated they were single and 12% were separated/divorced or widowed. The majority of participants (72%) reported taking medication for their mental health problems and 66% had previously received some form of psychological therapy.

Descriptive statistics for baseline measures and measures administered after session three are presented in Table 1. One gender difference was observed on the avoidant-fearful subscale of the CATS, with men scoring significantly higher on avoidance towards the therapist (M = 2.13, SD = 0.65) than women (M = 1.53, SD = 0.47), t(35) = 3.20, p = 0.003. Age was significantly negatively correlated with attachment anxiety at baseline [r = -0.34, p = 0.009], indicating that attachment anxiety decreased with increasing age. Further,
individuals who had previous psychological therapy (M = 1.63) reported less preoccupied attachment in the relationship with the therapist than those who had no previous experience of therapy (M = 2.76), t(34) = -2.98, p = 0.01.

The 16 participants who disengaged from therapy did not differ to the 16 participants who completed therapy in gender, age, ethnicity, employment status, relationship status, medication and previous therapy. However, completers appeared to have considerably higher levels of education \( \chi^2(1) = 4.21, p = 0.04 \), with 67% holding a university degree or A-Levels, compared to only 29% of non-completers. There were no significant differences between completers and non-completers with regards to baseline global attachment and mental health symptoms, as well as attachment to the therapist and working alliance.

Table 1.

Mean, standard deviation, and sample size for baseline ECR, baseline CORE, CATS subscales and WAI.

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
</table>

78
<table>
<thead>
<tr>
<th>Table 1: Psychological Measures</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-ECR Attachment Avoidance</td>
<td>3.88</td>
<td>1.38</td>
<td>56</td>
</tr>
<tr>
<td>Pre-ECR Attachment Anxiety</td>
<td>4.18</td>
<td>1.14</td>
<td>56</td>
</tr>
<tr>
<td>Pre-CORE</td>
<td>2.33</td>
<td>0.75</td>
<td>57</td>
</tr>
<tr>
<td>CATS secure</td>
<td>4.91</td>
<td>0.70</td>
<td>37</td>
</tr>
<tr>
<td>CATS avoidant-fearful</td>
<td>1.84</td>
<td>0.64</td>
<td>37</td>
</tr>
<tr>
<td>CATS preoccupied-merger</td>
<td>1.96</td>
<td>0.94</td>
<td>37</td>
</tr>
<tr>
<td>WAI</td>
<td>4.35</td>
<td>0.40</td>
<td>37</td>
</tr>
</tbody>
</table>

**Therapist characteristics**

The 58 participants were seen by eighteen therapists (2 male and 16 female). The majority of therapists (71%) saw one to three patients each, with the remainder seeing four to nine patients. The age of therapists ranged from 24 to 52 years (M = 35.67, SD = 9.12). Therapists consisted of four CBT therapists, eight High Intensity Therapists (HIT), five Low Intensity Therapists (LIT) and one Graduate Mental Health Worker (GMHW). All therapists apart from one HIT, who was still training, had obtained qualifications in CBT which allowed them to work with patients with different levels of symptom

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5 The ECR avoidance and anxiety means could not be calculated for two participants who had completed less than 14 items.

6 The CORE mean could not be calculated for one participant who had completed less than 25 items.
severity. Therapists’ post-qualification experience ranged from six months to nine years. For the 16 participants who completed therapy, the number of sessions ranged from 4 to 20 ($M = 12.5, SD = 5.81$), including assessment.

**Relationships between global attachment and symptoms at baseline**

As predicted, the study yielded significant associations between global attachment dimensions and mental health problems (see Table 2). A multiple regression analysis was conducted to explore whether global attachment anxiety and avoidance predicted a significant amount of variance in baseline CORE scores. The overall regression model explained 44% of the variance in CORE scores, which was statistically significant, $F(2,52) = 21.77, p < 0.001$. Both attachment anxiety and avoidance made significant individual contributions towards explaining the variance in CORE scores, both standardised $\beta = 0.42, t(52) = 3.93, p < 0.001$.

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7 The CBT and HIT practitioners offered between 12 to 20 sessions of CBT to patients with moderate to severe difficulties, whereas the LIT and GMHW offered between four to eight sessions to patients with mild difficulties.
Table 2.

*Inter-*correlations for baseline ECR subscales, baseline CORE, CATS subscales, WAI and pre-post change for the ECR dimensions and CORE.*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-ECR Attachment Avoidance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ECR Attachment Anxiety</td>
<td>0.26*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-CORE</td>
<td>0.54**</td>
<td>0.52**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATS Secure</td>
<td>-0.12</td>
<td>-0.11</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATS Avoidant-Fearful</td>
<td>0.23</td>
<td>0.34*</td>
<td>0.21</td>
<td>-0.62**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATS Preoccupied-Merger</td>
<td>0.07</td>
<td>0.33*</td>
<td>0.17</td>
<td>-0.10</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAI</td>
<td>-0.04</td>
<td>0.06</td>
<td>0.09</td>
<td>0.54**</td>
<td>-0.26</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECR Attachment Avoidance</td>
<td>0.47</td>
<td>0.40</td>
<td>0.13</td>
<td>0.09</td>
<td>-0.13</td>
<td>0.25</td>
<td>-0.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.12</td>
<td>0.34</td>
<td>0.04</td>
<td>0.11</td>
<td>-0.28</td>
<td>0.02</td>
<td>-0.02</td>
<td>0.64**</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
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<td></td>
</tr>
<tr>
<td>ECR Attachment Anxiety change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORE change</td>
<td>-0.10</td>
<td>-0.08</td>
<td>0.04</td>
<td>0.42</td>
<td>-0.42</td>
<td>0.19</td>
<td>0.29$^8$</td>
<td>0.43</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Note: For Pre-ECR and Pre-CORE n = 55-57; for CATS and WAI n = 37; for ECR and CORE change n = 16; *p < 0.05, **p < 0.01 (two-tailed).

$^8$ Correlation coefficient with outlier.
**Relationships between attachment and working alliance**

In contrast to predictions, Table 2 shows that there was no association between baseline global attachment and working alliance. However, working alliance yielded a large significant correlation with secure attachment towards the therapist. There were also small-to-moderate, but non-significant, correlations between working alliance and avoidant-fearful and preoccupied attachment towards the therapist.

The three CATS subscales were entered as predictors of working alliance into a multiple regression analysis. The overall model explained 26% of the variance in working alliance scores, which was statistically significant, $F(2,34) = 7.27$, $p = 0.002$. However, only the secure CATS subscale made a significant contribution towards explaining the variance in WAI scores, standardised $\beta = 0.61$, $t(34) = 3.34$, $p = 0.002$.

**Changes in symptoms and global attachment dimensions**

Table 3 presents descriptive statistics of the pre and post measures for the 16 participants who completed therapy. A repeated $t$-test revealed significant improvements in symptoms over time [$t(15) = 5.09$, $p < 0.001$], which were associated with a large effect size ($d = 1.48$). At intake, all 16 participants had CORE scores considered to be elevated into the clinical
range (i.e., mean scores > 1). Of these, 10 (62%) participants had final CORE scores in the non-clinical range. According to the 0.5-point reliable change index, 12 (0.75%) participants demonstrated clinically reliable improvements in their final CORE scores.

In addition to the improvements seen in mental health, results demonstrated significant reductions in attachment anxiety \( [t(15) = 3.66, p = 0.002] \) and avoidance \( [t(15) = 2.53, p = 0.02] \), with small to medium \( (d = 0.42) \) and medium to large \( (d = 0.63) \) effect sizes, respectively. There was a gender difference for attachment anxiety \( [t(14) = -2.79, p = 0.02] \), with men experiencing significantly less change than women \( (M = 0.35 \text{ and } M = 1.23, \text{ respectively}) \). There was also a large association between age and change in attachment anxiety, \( r = -0.55, p = 0.03 \), indicating that less change occurred with increasing age. Furthermore, changes in attachment avoidance were significantly associated with relationship status. Whereas participants in relationships experienced a reduction in attachment avoidance \( (M = 0.74) \), single participants showed a slight increase \( (M = -0.26), t(12) = -3.09, p = 0.009 \). Changes in attachment were not significantly associated with working alliance or attachment towards the therapist.

Table 3.
Mean and standard deviation for pre and post ECR and CORE.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-treatment</th>
<th>Post-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>CORE</td>
<td>2.21</td>
<td>0.62</td>
</tr>
<tr>
<td>ECR Attachment</td>
<td>3.44</td>
<td>1.16</td>
</tr>
<tr>
<td>Avoidance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECR Attachment</td>
<td>4.10</td>
<td>1.07</td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 16

Relationships between symptom changes and other variables

Contrary to predictions, there did not appear to be any relationship between symptom change and baseline global attachment avoidance and anxiety. However, there were medium-to-large and small-to-medium associations with change in global attachment avoidance and change in global attachment anxiety, respectively. Medium-to-large associations were also observed between symptom change and the secure and avoidant-fearful CATS subscales. Whilst working alliance only revealed a moderate relationship with symptom change, a strong significant association emerged when the outlier was removed, r = 0.66, p = 0.007.
Discussion

In line with the first hypothesis, adults with higher attachment anxiety and high attachment avoidance presented to therapy with more psychological distress. Second, neither attachment anxiety nor avoidance was associated with working alliance. However, individuals with secure attachment towards the therapist displayed significantly better working alliance. Third, significant improvements were observed in mental health and attachment anxiety and avoidance following therapy. Fourth and fifth, improvements in mental health were associated, albeit non-significantly, with secure, avoidant-fearful and preoccupied attachment towards the therapist, working alliance and change in attachment anxiety and avoidance. There was no relationship between baseline global attachment and symptom change.

Consistent with a large body of research (for a review see Shorey and Snyder, 2006), the current study confirmed that insecure global attachment appeared to be associated with psychological problems. This highlights the potentially important role that attachment may play in the development and the treatment of mental health problems.

The non-significant relationship between global attachment and working alliance is consistent with the findings from a recent systematic review.
Smith, Msetfi and Golding (2010) showed that the majority of studies examining constructs of attachment anxiety and/or attachment avoidance found no significant association with working alliance. Only a combined single dimension of attachment security demonstrated significant results in the expected direction. The latter was supported by Diener and Monroe’s (2011) meta-analysis, but the effect size was only small ($r = 0.17$) raising the question whether the relationship between global attachment security and working alliance is clinically meaningful.

In contrast, the results confirmed that client attachment towards the therapist had a strong impact on the quality of the working alliance. In keeping with previous findings (Janzen, Kitzpatrick, Drapeau, 2008; Mallinckrodt, Porter & Kivlighan, 2005; Romano, Fitzpatrick & Janzen, 2008; Sauer et al., 2010), secure attachment towards the therapist significantly predicted better working alliance, although a significant relationship between avoidant-fearful attachment towards the therapist and working alliance was not evident in the current study.

The pattern of results between attachment and working alliance was also reflected in the relationship between attachment and client’s responses to psychotherapy. The non-significant associations between global attachment
dimensions and outcome were largely inconsistent with previous research (Byrd, Patterson & Turchik, 2010; Forbes et al., 2010, Joyce et al., 2010; Meyer et al., 2001; Ogrodniczuk et al., 2002; Reis & Greyner, 2004; Saatsi, Hardy & Cahill, 2007; Stalker, Geotys, & Harper, 2005), although they were supported by a small number of studies with non-significant findings (Kanninen, Salo & Punamaki, 2000; Kirchmann et al., 2009; Ravitz, Maunder & McBride, 2008; Sauer et al., 2010; Strauss et al., 2006). Interestingly, the only two previous studies which employed the ECR (Ravitz et al. and Sauer et al.) also did not find significant associations, suggesting that inconsistencies in the literature may be partly explained by differences in attachment measures (e.g., Daniel, 2006). This raises the question whether results obtained through the ECR should be given more weight in view of its good psychometric properties.

As expected, the results highlighted that client attachment towards the therapist appeared to be of greater importance in influencing psychotherapy outcome than global attachment. Although the results were non-significant due to the small number of participants, the effect sizes indicated that secure attachment and avoidant-fearful attachment towards the therapist could potentially be important predictors of outcome. However, to date
there is only one other study which has investigated the relationship between attachment towards the therapist and outcome. The results by Sauer et al. (2010) are consistent with the present study, further highlighting that this may be an important area for future research.

Interestingly, the relationship between secure attachment/avoidant-fearful attachment towards the therapist and outcome was larger than the association between working alliance and outcome. Working alliance is considered the most robust predictor of therapy outcome (Safran & Muran, 2000) and the current effect size reflected the magnitude of previous research findings (e.g., $r = 0.28$, Horvath et al., 2011). Due to the small sample size, it was not possible to model working alliance and attachment towards the therapist together as predictors of outcome and assess the unique contributions they each made.

Furthermore, the current study made significant contributions to the growing evidence on change in attachment during psychotherapy (e.g., Ravitz, Maunder, & McBride, 2008). In fact, it was the first study to demonstrate significant reductions in both attachment anxiety and attachment avoidance during individual CBT, extending findings by McBride et al. (2006) who demonstrated a significant reduction in attachment anxiety
only. The findings suggest that CBT may provide a strong disconfirmatory experience which can revise insecure attachment representations. The changes in global attachment were further associated, albeit non-significantly, with therapy outcome. Specifically, participants with greater reductions in attachment avoidance showed greater improvements in symptoms and there was a similar, but smaller trend for attachment anxiety.

This is consistent with previous research (Mueller & Rosenkranz, 2008; Lawson & Bossart, 2009; Tasca et al., 2007) lending support to the idea that changes in global attachment may be required for improvements in symptoms to take place.

**Limitations**

The results from the current study need to be considered with caution due to a number of limitations. First, the small sample of participants who completed therapy limited statistical power and increased the likelihood of Type 2 errors. Consequently, none of the variables which correlated with psychotherapy outcome reached statistical significance. The small sample size also did not allow for the conducting of any follow-up regression analyses to establish the individual contributions of associated variables with regards to explaining the variance in outcome.
Second, it has been argued that secure attachment towards the therapist and high quality working alliance may measure similar constructs (e.g., Mallinckrodt, Porter and Kivlighan, 2005), suggesting that the significant relationship between the two variables in the current study may not be conceptually very meaningful. As such, both variables may also essentially explain similar variance in psychotherapy outcome.

Third, the current study lacked a control group which meant that the reductions in attachment anxiety and avoidance cannot be attributed to the therapeutic intervention alone. For example, it is possible that attachment changed naturally over time, which was evidenced by the finding that attachment anxiety decreased with increasing age. Findings may have also been confounded by therapist effects since several clients were seen by the same therapist, introducing a degree of dependency in the data. The study did not take account of therapists’ attachment styles and their interactions with client attachment. The use of self-report measures introduced the possibility of reporting bias by participants. In addition, self-report measures of attachment required participants to be consciously aware of their expectations and behaviours in attachment relationships. However, as attachment is often considered to be an unconscious, automatic process, the
validity of self-report instruments has been questioned (Cowell, Fraley & Shaver, 1999).

Fourth, there are further issues with regards to the representativeness of the sample which largely comprised White British participants. Thus, the results cannot be generalised to more diverse populations.

**Future Research**

Future research could build on this study by using a larger sample in order to identify significant predictors of psychotherapy outcome. Of particular interest may be the investigation of the discriminant validity of the CATS by testing whether it can predict more unique variance in psychotherapy outcome than the WAI. The current study also highlighted the potential predictive value of changes in global attachment dimensions. Changes in attachment may be indicators of long-lasting improvements in psychological distress which could be assessed by introducing a follow-up period. An additional predictor of psychotherapy outcome could be therapists’ attachment style.

Further research is also required to confirm whether individual CBT improves insecure attachment representations. In doing so, studies should control for
confounding variables by employing a control group, ideally as part of a randomised controlled design. Future studies would benefit from using therapist-client dyads in order to ensure independence of data. In order to allow for the comparison of findings across the literature, future research is advised to employ a common measure of attachment based on the two-dimensional model recommended by Brennan, Clark and Shaver (1998). In this respect, the development of a two-dimensional measure of attachment towards the therapist may also be of relevance. Furthermore, a more diverse sample could be employed to assess the generalisability of the current findings.

**Clinical Implications**

The results of this study have potentially important clinical implications. First, therapists may benefit from being mindful of the relationship between clients’ attachment styles and psychological problems. During assessment, therapists could establish the role of attachment difficulties in the development of clients’ difficulties. This could include the assessment of clients’ expectations in close relationships and their ability to express and regulate their emotions. If attachment issues are identified, these may become part of the formulation and may need to be addressed during
therapy, depending on their importance.

The results further suggest that client insecure attachment characteristics may not necessarily influence working alliance and psychotherapy outcome. Instead, therapists may want to focus on establishing a secure attachment relationship with clients by providing a responsive, attentive and reliable atmosphere (Bowlby, 1988). Given the large overlap between secure attachment towards the therapist and working alliance, literature on improving working alliance is also of direct relevance, such as the work by Ackerman and Hilsenroth (2003). In addition to establishing a ‘secure base’, therapists may want to monitor the therapeutic relationship for any signs that could indicate avoidant–fearful attachment towards the therapist, such as reluctance to make personal disclosures, difficulties trusting the therapist and an overly compliant interpersonal style. If identified these issues may need to be directly addressed in order to help clients succeed in therapy.

References


Journal of Mental Health, 9, 247–255.


characteristics, patients' assessment of therapeutic factors, and
treatment outcome following inpatient psychodynamic group

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Critical Appraisal

Word Count 4,350
Introduction

The research presented in the current thesis aims to provide a greater understanding of adult attachment processes in psychotherapy. A systematic review was conducted which provided a synthesis of studies investigating changes in adult attachment representations during psychotherapy. The intention was to assess whether psychotherapy was able to provide experiences which can revise attachment in the direction of increased security and reduced insecurity. The number of studies identified by the review was small and thus one of the objectives of the empirical paper was to extend the literature on change in attachment during psychotherapy, focusing specifically on Cognitive Behaviour Therapy (CBT). The empirical paper also sought to elucidate understanding of the relationship between attachment, working alliance and psychotherapy outcome. This critical reflection paper will discuss the limitations of the systematic review and the empirical paper and reflect on their clinical and research implications.

Literature Review

Topic selection

Initially, the researcher had thought about conducting a review on studies that examined the relationship between global attachment representations
and psychotherapy outcome; in line with one of one of the main objectives of the empirical paper. However, a systematic search of the area identified that Levy, Ellison, Scott and Bernecker (2011) had recently conducted a meta-analysis on this topic. Furthermore, the systematic search had identified a large number of suitable studies and it was thought that it might be difficult to review the number of studies within the limited time period. Thus, the topic focus then moved onto reviewing changes in attachment during psychotherapy for which a more manageable number of references could be identified following a second search.

**Quality assessment tool**

An important part of the systematic review was the assessment of the quality of included studies. This assessment was critical as it aided the appropriate interpretation of results, which in turn guided recommendations for future research and clinical practice. As such, the accuracy of the assessment method was paramount, which relied on a valid and reliable measure. However, identifying an appropriate tool was one of the first challenges as there were hundreds of tools available, but little consensus as to the most appropriate tool for evaluating allied health research (Katrak, Bialocerkowski, Massy-Westropp, Kumar & Grimmer, 2004). The current tool was chosen because it had been recommended as suitable for non-
randomised intervention studies in a review of nearly 200 tools (Deek, Dinnes, D’Amico, Sowden, Sakarovitch et al., 2003). It allowed the evaluation of a variety of intervention study designs and provided clear guidance for assessment so that it could be applied and interpreted in a standardised manner. Some research was available on its validity and reliability (Thomas, Ciliska, Dobbins, & Micucci, 2004).

Whilst there appeared to be many advantages to using the current tool, a recent systematic review (Armijo-Olivo, Stiles, Hagen, Biondo & Cummings, 2010) demonstrated poor agreement between the EPHPP and another tool (i.e., the Cochrane Collaboration Risk of Bias Tool, CCRBT) with regards to their final ratings of the same studies. That is, the EPHPP had graded 90% of studies as moderate in quality, whereas the CCRBT graded 95% of studies as having a high risk of bias. This indicates that the type of quality assessment tool selected may in itself introduce a systematic bias. Therefore it is possible that another reviewer using a different quality assessment tool may have rated the studies in this review differently, thereby altering the findings of this review. Furthermore, the authors became aware that despite the guidance on assessment, the tool still required a certain degree of subjective judgement in rating some of its components, which may have had an undue
influence on the accuracy of the assessment. In acknowledgement of this issue, the Centre for Reviews and Dissemination (2009) recommend that quality assessments should be undertaken independently by two researchers, although this was not possible within the constraints of the project. Accuracy of the assessment could have been further improved by the use of an experienced statistician to assess the appropriateness of the statistical analyses of included studies.

**Presentation of results**

One of the main challenges in writing this review was deciding how to present the findings of included studies in a systematic and objective manner. The researcher drew on previous research and examples of reviews in the attachment literature to aid in this decision making process. Based on research which had highlighted conceptual differences between the narrative and self-report traditions, it was decided to present studies from these two traditions separately. However, for two studies it was not always clear which paradigm they had employed as both had used interviews and, thus, the researchers had to be contacted to clarify.

The next step then involved a decision on how to present the studies within each tradition, specifically for the larger number of studies using self-report
measures. A review by Smith, Msefti and Golding (2010) on the relationship between attachment and working alliance had presented findings by attachment dimension, based on Brennan, Clark and Shaver’s (1998) two-dimensional model, which allowed the systematic examination of the evidence for each insecure attachment representation. Initially, it was thought that this would be advantageous as it would enable the systematic examination of the evidence for each attachment dimension since many studies reported mixed findings for each dimension. However, it became apparent that it was difficult to always clearly determine which underlying dimension was measured by different attachment questionnaires. For example, some measures assessed fearful-avoidant attachment which tapped into both attachment anxiety and avoidance. Furthermore, reporting the findings in this way made it difficult to discuss study findings in conjunction with their methodological limitations.

A compromise was made, whereby study results were first discussed one by one in the main results section to provide the reader with an overview of the literature, and then summarised at the end by attachment dimension. Following this decision, it was considered how to group the results in the main section, more specifically whether grouping should be based on
methodological quality, therapeutic format, therapeutic approach or client group. After careful consideration, it was agreed that results would be grouped by therapy format and therapeutic modality in order to identify possible differences in findings between different therapy approaches.

**Empirical paper**

**Recruitment process**

As for most research studies, recruitment of participants presented one of the greatest challenges. Recruitment took place across Step 2 and Step 3 Improving Access to Psychological Therapy (IAPT) services in Greater Manchester which are known for their target-driven culture. Clinicians in these services often hold high caseloads and collect several IAPT outcome measures at every session. As such there is often little time to engage in other activities, such as research.

Recruitment commenced in one Step 3 service in South Manchester where in discussion with managers two recruitment pathways were identified. In the development of these pathways several issues had to be considered, such as the impact on service user, therapists and the service generally, resources and research ethics. As part of the first pathway, individuals who
were referred to the service received an information pack about the study in
the post together with their first appointment letter. However, only a small
number of clients responded in this way. The main recruitment pathway
relied on therapists providing information about the project to clients at the
initial assessment session. In order to get to this point, a lot of time was
spent engaging therapists to bring them on board with the project. The
researcher attended various team meetings to present the project and
provided teaching on attachment theory. In discussion with therapists, the
recruitment pathway was further simplified to keep the workload for
therapists to an absolute minimum. In engaging therapists, the researcher
also learnt the importance of contacting staff directly rather than sending
group e-mails or speaking to staff as a group at meetings as this often led to
fewer responses.

Despite the efforts in engaging staff, recruitment difficulties soon became
apparent. The researcher tried to address recruitment issues by expanding
to three other services in Greater Manchester. However, on reflection,
recruitment could have been opened up to other services much earlier in the
process. The potential of Step 2 services in particular was recognised too
late. The researcher had been hesitant to recruit from step 2 services
because of concerns that the brief nature of step 2 therapy would be less likely to be influenced by attachment processes.

**Quality assessment**

The current empirical study was assessed for methodological quality to guide the interpretation of findings. The Effective Public Health Practice Project (EPHPP) was used as a quality assessment tool (Thomas, Ciliska, Dobbins, & Micucci, 2004).

**Selection Bias**

As outlined above, participants were recruited through self-referral or non-systematic referral by therapists. Whilst this recruitment procedure was designed to maximise participation, it also put the current study at high risk of selection bias and, consequently, compromised the representativeness of the sample. The recruitment procedure could have been improved by asking therapists to select participants in a systematic randomised fashion. It would have also been helpful if therapists could have kept a record of the number of clients that did not agree to participate following selection. However, at the time it was decided that this added an extra layer of complexity which could reduce therapists’ motivation to participate. It was also felt that it might be difficult for therapists to adhere to this method and that it could
prolong the recruitment process.

**Study Design**

The current study employed a pre-post cohort design. Whilst this was an appropriate design for examining relationships between variables, it introduced a bias with regards to examining longitudinal change processes due to the lack of control over confounding variables. That is, the changes in attachment observed in this study cannot be reliably attributed to the intervention. The design could have been improved by employing a control group which undertook self-help or a waiting-list control group. Furthermore, participants could have been randomly allocated to the control and the intervention group. However, either of these ideas would have been beyond the scope of this project.

**Confounders**

Although the study design provided poor control over confounding variables, the current study tried to assess the influence of potential confounding variables, such as age and gender. However, the small number of participants often made it difficult to control for confounding variables in the analyses.
Blinding

Whilst the researcher was aware of the intervention status of participants, it is unlikely that this would have unduly influenced the results given that participants completed all measures by themselves without help from the researcher or therapist. However, it is possible that the results may have been compromised by reporting biases. For example, it is possible that participants might not have been completely honest in their responses on the Working Alliance Inventory – Client Version (Horvath & Greenberg, 1989) and the Client Attachment to Therapist Scale (CATS; Mallinckrodt, Gantt & Coble, 1995) due to fear that their therapist could see their answers, especially since participants had been given the option to return research questionnaires to their therapists upon completion. Although every effort had been made to reassure participants that their responses were completely confidential and would not be shared with their therapist, potential bias could have been further reduced by questionnaires being returned in the post in the post only.

Further reporting bias could have occurred due to participants receiving information on the purpose of the study, i.e. relationship between attachment and outcome of therapy, which may have influenced their responses on the measure. The title of the study (‘Factors associated with
Success in Therapy) in particular may have encouraged participants to complete the measures in a more favourable manner. On reflection a more neutral title could have been chosen and the study information shared with participants could have been more carefully assessed.

Data Collection Methods

The self-report measures used in this study were considered to have good psychometric properties. However, there may have been wider conceptual issues pertaining to the measurement of attachment which may have compromised the validity of the attachment measures used. First, a common criticism of self-report measures of attachment is that they require individuals to be consciously aware of their thought, feelings and behaviours in attachment relationships. However, as attachment is often considered to be an unconscious process, the validity of self-report measures has been questioned.

Second, in the current study individual differences in global attachment are measured by assessing the quality of attachment towards a romantic partner; common practice within the self-report adult attachment literature. However, research has shown that attachments can vary across different relationships as attachment security is influenced not only by an individual’s
internal working model but also by relationship-specific factors, such as the characteristics of the other person (Cook, 2000). This raises the question whether the Experience in Close Relationships Scale (ECR; Brennan, Clark & Shaver, 1998) is an accurate measure for assessing an individuals’ internal working model.

Third, whilst the ECR and CATS measured individual differences in the quality of attachment relationships, they did not assess the presence/absence of attachment or the degree to which an attachment relationship had developed. Thus the measures may not have been able to distinguish between a true attachment relationship and a non-attachment relationship.

Attachment theorists have proposed three criteria to distinguish attachment relationships from other close relationships. These are: 1) a wish to remain in close contact with the attachment figure and distress at involuntary separation, 2) the use of the attachment figure as a ‘safe haven’ in times of distress, and 3) the use of the attachment figure as a ‘secure base’ for exploration (Fraley & Shaver, 2000). Researchers who have studied these features in adult romantic relationships have found that it takes approximately 2 years, on average, for all three functions to be present.
within an adult romantic relationship (Fraley & Davies, 1997). The same researchers also highlighted that not all adults use their partner as an attachment figure.

In light of these findings, the question arises whether the relationships assessed by the attachment questionnaires were in fact true attachment relationships. Especially in relation to the CATS, which was administered after session three, it is questionable whether three therapy sessions provided sufficient time for an attachment relationship to develop between client and therapist. Moreover, participants might not have chosen to use the therapist as an attachment figure given the time-limited nature of CBT, and also therapists may not have had capacity to provide all attachment-related functions. Future research is required to examine the nature of the therapeutic bond and the extent to which it serves attachment-related functions.

**Withdrawals and drop-outs**

Attrition rates were considered a serious problem for the current study. Only 28% of recruited participants completed the study, which could have compromised the representativeness of the results. Significant findings could be due to differences between individuals who completed and those who did
not complete the study. For example, the study identified significant differences in education level between participants who withdrew from therapy and individuals who completed therapy, although no differences were found in relation to any other demographic variables or questionnaire measures. Nevertheless, it would have been important to control for education in the analyses.

**Intervention Integrity**

The current study did not monitor adherence to the CBT protocol. Also one CBT therapist was still in training and another therapist who worked as a graduate mental health worker had not completed a formal qualification in CBT.

**Analyses**

The analyses conducted were considered appropriate for the study design. However, due to the small sample size it was not possible to conduct all of the intended statistical analyses. For example, the small sample size did not allow for follow-up regression analyses to establish the individual contributions of associated variables with regards to explaining the variance in psychotherapy outcome. It also made it difficult to account for possible confounding variables in the analyses. Furthermore, the small sample limited
the statistical power of the tests, increasing the likelihood of Type 2 errors.

A significant outlier was identified for the correlation between working alliance and symptom change. The outlier did not exhibit any change in symptoms despite reporting a very good working alliance. The researcher considered whether to remove the outlier given that it appeared to have a substantial influence on the results; \( r = 0.66, p = 0.007 \) without the outlier, whereas \( r = 0.29, p = \text{ns} \) with the outlier. However, the demographics and other scores provided by the participant did not indicate sufficient reason to delete the case. Also, the correlation coefficient with the outlier appeared to be closer to the value identified in previous research (e.g. \( r = 0.28 \), Horvath, Del Re, Flückiger, & Symonds, 2011).

**Overall Rating**

The quality assessment highlighted that the current study is at high risk of bias and, therefore, should be rated weak with regards to its overall quality. Thus the results of the empirical study should be considered with caution.

**Interpretation of results**

The results of the study highlighted that client attachment towards the therapist appeared to be of greater importance in influencing psychotherapy
outcome than global attachment. Whilst this was consistent with the study hypothesis, it was nevertheless surprising to find that there was no association between global attachment and psychotherapy outcome. One possible explanation is that the ECR and the CATS measured different dimensions of attachment. Whereas the ECR measured attachment anxiety and avoidance on separate scales, the CATS yielded two subscales (secure and avoidant-fearful) which measured aspects of both attachment anxiety and avoidance. Thus, the results of these two measures may not be directly comparable.

On reflection, it might have been useful to assess whether a single scale of global attachment security would have yielded an association between global attachment and outcome. Support for this notion derives from the literature on the association between global attachment and working alliance. The systematic review by Smith, Msetfi and Golding (2010) showed that only a single dimension of attachment security consistently demonstrated significant associations with working alliance, whereas the majority of studies examining constructs of attachment anxiety and avoidance individually did not.
Another possible explanation for the lack of association between global attachment and therapy outcome could be that therapists naturally adjusted their therapeutic style to the attachment needs of clients, moderating the impact of insecure attachment on psychotherapy outcome. Furthermore, the non-significant association may have been a result of issues with the use of the ECR as an attachment measure (see section on Data Collection Methods for further details). For example, the ECR measured individual differences in the quality of attachment towards a romantic partner rather than the absence or presence of an attachment relationship. Therefore, it might not have been able to distinguish between true attachment relationships and non-attachment relationships. It is also possible that the ECR did not constitute an accurate measure of global attachment as it might have been influenced by relationship-specific factors.

**Future research**

**Sample**

Future research could build on this study by using a larger sample in order to conduct a more appropriate analysis and to improve the representativeness of the sample. The latter could have been further improved through random selection of participants and by recruiting a more ethnically diverse sample.
Study design

Future research should control for confounding variables in the analyses and/or in the study design. With regards to the latter, it is recommended to employ a control group (e.g., a waiting-list control group and/or a control group undertaking self-help) and to randomly allocate participants to the control and the intervention group. Future studies would also benefit from using therapist-client dyads in order to ensure independence of data.

Reporting bias

In order to reduce potential reporting bias, participant could have been asked to return all questionnaires by post. Also a more neutral title could have been chosen and the study information shared with participants could have been more carefully assessed.

Adult Attachment

The discussion above highlighted a range of issues with respect to the conceptualisation and measurement of attachment in adulthood which should be addressed by future research. First, research should clarify whether there is any evidence for a global internal working model of attachment which generalises to all future relationships or whether attachment is specific to the relationship with a significant other person. If
attachment was found to be influenced by relationship-specific factors, research would need to establish whether attachment measures should be used to study processes that are unrelated to the attachment relationship that is being measured, such as the use of the ECR to predict outcome of therapy? Third, relationship-specific measures, such as the ECR and the CATS, should ensure ways of establishing that the relationship they measure does indeed meet criteria for an attachment relationship. With regards to the CATS in particular, it may be important to establish the nature of the relationship measured by the questionnaire instead of assuming that the CATS measures attachment towards the therapist. Fourth, future research using attachment to predict therapy processes might want to use both a single measure of attachment security and a two-dimensional measure of attachment anxiety and avoidance to establish whether they yield the same or different results. Fifth, future research on attachment towards the therapist should consider the development of a two-dimensional measure of attachment towards the therapist in order to ensure comparison with other attachment measures.

**Clinical implications**

The results of this study have potentially important clinical implications.
First, therapists may benefit from being mindful of the relationship between clients’ attachment styles and psychological problems. During assessment, therapists could establish the role of attachment difficulties in the development of clients’ difficulties. This could include the assessment of clients’ expectations in close relationships and their ability to express and regulate their emotions. If attachment issues are identified, these may become part of the formulation and may need to be addressed during therapy, depending on their importance.

Second, the current study findings extend previous attachment research concerning the relationship between client attachment orientations, working alliance and psychotherapy outcome. Although global adult attachment did not predict therapy working alliance or change in psychological symptoms over time, clients with higher levels of attachment security and lower levels of avoidant-fearful attachment to their therapist experienced better working alliance and greater improvements in mental health. This suggests that insecure adult attachment does not necessarily affect clients’ ability to foster a strong alliance with their therapist or to benefit from therapy. Instead, it appears to be the attachment relationship with the therapist that is more important in influencing therapy processes. One explanation for why clients
with greater secure attachment to the therapist benefit more from therapy could be that secure attachment facilitates greater in-session exploration (Mallinckrodt, Porter and Kivilihan, 2005).

Based on the current research, therapists may be able to enhance working alliance and promote positive therapy outcomes by providing an environment that facilitates the development of secure attachment towards the therapist. Bowlby (1988) suggested that such an environment could be created by therapists being attentive, responsive and reliable. However, given the relative novelty of the concept of client attachment towards the therapist, there is as yet little empirical evidence to suggest the type of therapist characteristics and therapy techniques that could enhance attachment towards the therapist. Some theorists have also argued that in order to establish a secure attachment with clients it may be necessary to adjust the therapy environment to meet the attachment needs of the client. For example, Daly and Mallinckrodt (2009) suggested that anxious clients will benefit from gradually increasing therapeutic distance, while avoidant clients will benefit from gradually decreasing distance.

Third, the current study made significant contributions to the growing
evidence on change in attachment during psychotherapy. In fact, it was the first study to demonstrate significant reductions in both attachment anxiety and attachment avoidance during individual CBT. These findings suggest that CBT may provide a strong disconfirmatory experience which can revise insecure attachment representations. Given that the changes in global attachment were associated with therapy outcome, the study also lend support to the idea that changes in global attachment may be required for improvements in symptoms to take place.

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York.


Appendix 1: Author guidelines for Clinical Psychology Review
DESCRIPTION

Clinical Psychology Review publishes substantive reviews of topics germane to clinical psychology. Papers cover diverse issues including: psychopathology, psychotherapy, behavior therapy, cognition and cognitive therapies, behavioral medicine, community mental health, assessment, and child development. Papers should be cutting edge and advance the science and/or practice of clinical psychology. Reviews on other topics, such as psychophysiology, learning therapy, experimental psychopathology, and social psychology often appear if they have a clear relationship to research or practice in clinical psychology. Integrative literature reviews and summary reports of innovative ongoing clinical research programs are also sometimes published. Reports on individual research studies and theoretical treatises or clinical guides without an empirical base are not appropriate.

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**PREPARATION**

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Appendices
If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

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**Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. **Note: The title page should be the first page of the manuscript document indicating the author's names and affiliations and the corresponding author's complete contact information.**

**Author names and affiliations.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.

**Corresponding author.** Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

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A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

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Acknowledgements
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers. Many wordprocessors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Table footnotes
Indicate each footnote in a table with a superscript lowercase letter.

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General points
• Make sure you use uniform lettering and sizing of your original artwork.
• Save text in illustrations as 'graphics' or enclose the font.
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• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Provide captions to illustrations separately.
• Produce images near to the desired size of the printed version.
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TIFF: Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF: Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF: Combinations bitmapped line/halftone (color or grayscale): a minimum of 500 dpi is required.
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Appendix 2: Quality Assessment Tool - EPHPP
QUALITY ASSESSMENT TOOL FOR QUANTITATIVE STUDIES

COMPONENT RATINGS

A) SELECTION BIAS

(Q1) Are the individuals selected to participate in the study likely to be representative of the target population?
   Very likely
   Somewhat likely
   Not likely
   Can’t tell

(Q2) What percentage of selected individuals agreed to participate?
   80 - 100% agreement
   60 – 79% agreement
   less than 60% agreement
   Not applicable
   Can’t tell

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B) STUDY DESIGN

Indicate the study design
   Randomized controlled trial
   Controlled clinical trial
   Cohort analytic (two group pre + post)
   Case-control
   Cohort (one group pre + post (before and after))
   Interrupted time series
   Other specify ____________________________
   Can’t tell

Was the study described as randomized? If NO, go to Component C.
   No Yes
If Yes, was the method of randomization described? (See dictionary)
No Yes

If Yes, was the method appropriate? (See dictionary)

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C) CONFOUNDERS

(Q1) Were there important differences between groups prior to the intervention?
Yes
No
Can’t tell

The following are examples of confounders:
Race
Sex
Marital status/family
Age
SES (income or class)
Education
Health status
Pre-intervention score on outcome measure

(Q2) If yes, indicate the percentage of relevant confounders that were controlled (either in the design (e.g. stratification, matching) or analysis)?
80 – 100% (most)
60 – 79% (some)
Less than 60% (few or none)
Can’t Tell

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D) BLINDING
(Q1) Was (were) the outcome assessor(s) aware of the intervention or exposure status of participants?
  Yes
  No
  Can’t tell

(Q2) Were the study participants aware of the research question?
  Yes
  No
  Can’t tell

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F) WITHDRAWALS AND DROP-OUTS

(Q1) Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?
  Yes
  No
  Can’t tell
  Not Applicable (i.e. one time surveys or interviews)

(Q2) Indicate the percentage of participants completing the study. (If the percentage differs by groups, record the lowest).
  80 - 100%
  60 - 79%
  less than 60%
  Can’t tell
  Not Applicable (i.e. Retrospective case-control)

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G) INTERVENTION INTEGRITY

(Q1) What percentage of participants received the allocated intervention or exposure of interest?
  80 - 100%
  60 - 79%
  less than 60%
(Q2) Was the consistency of the intervention measured?
   Yes
   No
   Can’t tell

(Q3) Is it likely that subjects received an unintended intervention (contamination or co-intervention) that may influence the results?
   Yes
   No
   Can’t tell

H) ANALYSES

(Q1) Indicate the unit of allocation (circle one)
   community organization/institution practice/office individual

(Q2) Indicate the unit of analysis (circle one)
   community organization/institution practice/office individual

(Q3) Are the statistical methods appropriate for the study design?
   Yes
   No
   Can’t tell

(Q4) Is the analysis performed by intervention allocation status (i.e. intention to treat) rather than the actual intervention received?
   Yes
   No
   Can’t tell

GLOBAL RATING
COMPONENT RATINGS

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F WITHDRAWALS AND DROPOUTS STRONG MODERATE WEAK

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**GLOBAL RATING FOR THIS PAPER (circle one):**

1 STRONG (no WEAK ratings)
2 MODERATE (one WEAK rating)
3 WEAK (two or more WEAK ratings)

With both reviewers discussing the ratings:

Is there a discrepancy between the two reviewers with respect to the component (A-F) ratings?

No Yes

If yes, indicate the reason for the discrepancy

1 Oversight
2 Differences in interpretation of criteria
3 Differences in interpretation of study

**Final decision of both reviewers (circle one):**

1 STRONG
2 MODERATE
3 WEAK
Appendix 2: Quality Assessment Tool for Quantitative studies
Dictionary
The purpose of this dictionary is to describe items in the tool thereby assisting raters to score study quality. Due to under-reporting or lack of clarity in the primary study, raters will need to make judgements about the extent that bias may be present. When making judgements about each component, raters should form their opinion based upon information contained in the study rather than making inferences about what the authors intended.

**SELECTION BIAS**

(Q1) Participants are more likely to be representative of the target population if they are randomly selected from a comprehensive list of individuals in the target population (score very likely). They may not be representative if they are referred from a source (e.g. clinic) in a systematic manner (score somewhat likely) or self-referred (score not likely).

(Q2) Refers to the % of subjects in the control and intervention groups that agreed to participate in the study before they were assigned to intervention or control groups.

**B) STUDY DESIGN**

In this section, raters assess the likelihood of bias due to the allocation process in an experimental study. For observational studies, raters assess the extent that assessments of exposure and outcome are likely to be independent. Generally, the type of design is a good indicator of the extent of bias. In stronger designs, an equivalent control group is present and the allocation process is such that the investigators are unable to predict the sequence.

**Randomized Controlled Trial (RCT)**

An experimental design where investigators randomly allocate eligible people to an intervention or control group. A rater should describe a study as an RCT if the randomization sequence allows each study participant to have the same chance of receiving each intervention and the investigators could not predict which intervention was next. If the investigators do not describe the allocation process and only use the words ‘random’ or ‘randomly’, the study is described as a controlled clinical trial.

See below for more details.

Was the study described as randomized?
Score YES, if the authors used words such as random allocation, randomly assigned, and random assignment.

Score NO, if no mention of randomization is made.

Was the method of randomization described?
Score YES, if the authors describe any method used to generate a random allocation sequence.
Score NO, if the authors do not describe the allocation method or describe methods of allocation such as alternation, case record numbers, dates of birth, day of the week, and any allocation procedure that is entirely transparent before assignment, such as an open list of random numbers of assignments.
If NO is scored, then the study is a controlled clinical trial.
Was the method appropriate?
Score YES, if the randomization sequence allowed each study participant to have the same chance of receiving each intervention and the investigators could not predict which intervention was next. Examples of appropriate approaches include assignment of subjects by a central office unaware of subject characteristics, or sequentially numbered, sealed, opaque envelopes.
Score NO, if the randomization sequence is open to the individuals responsible for recruiting and allocating participants or providing the intervention, since those individuals can influence the allocation process, either knowingly or unknowingly.
If NO is scored, then the study is a controlled clinical trial.
Controlled Clinical Trial (CCT)
An experimental study design where the method of allocating study subjects to intervention or control groups is open to individuals responsible for recruiting subjects or providing the intervention. The method of allocation is transparent before assignment, e.g. an open list of random numbers or allocation by date of birth, etc.
Cohort analytic (two group pre and post) An observational study design where groups are assembled according to whether or not exposure to the intervention has occurred. Exposure to the intervention is not under the control of the investigators. Study groups might be non-equivalent or not comparable on some feature that affects outcome.
Case control study
A retrospective study design where the investigators gather ‘cases’ of people who already have the outcome of interest and ‘controls’ who do not. Both groups are then questioned or their records examined about whether they received the intervention exposure of interest.
Cohort (one group pre + post (before and after)
The same group is pretested, given an intervention, and tested immediately after the intervention. The intervention group, by means of the pretest, act as their own control group.
Interrupted time series
A time series consists of multiple observations over time. Observations can be on the same units (e.g. individuals over time) or on different but similar units (e.g. student achievement
scores for particular grade and school). Interrupted time series analysis requires knowing the specific point in the series when an intervention occurred.

C) CONFOUNDERS

By definition, a confounder is a variable that is associated with the intervention or exposure and causally related to the outcome of interest. Even in a robust study design, groups may not be balanced with respect to important variables prior to the intervention. The authors should indicate if confounders were controlled in the design (by stratification or matching) or in the analysis. If the allocation to intervention and control groups is randomized, the authors must report that the groups were balanced at baseline with respect to confounders (either in the text or a table).

D) BLINDING

(Q1) Assessors should be described as blinded to which participants were in the control and intervention groups. The purpose of blinding the outcome assessors (who might also be the care providers) is to protect against detection bias.
(Q2) Study participants should not be aware of (i.e. blinded to) the research question. The purpose of blinding the participants is to protect against reporting bias.
DATA COLLECTION METHODS

Tools for primary outcome measures must be described as reliable and valid. If ‘face’ validity or ‘content’ validity has been demonstrated, this is acceptable. Some sources from which data may be collected are described below:

Self reported data includes data that is collected from participants in the study (e.g. completing a questionnaire, survey, answering questions during an interview, etc.).

Assessment/Screening includes objective data that is retrieved by the researchers. (e.g. observations by investigators).

Medical Records/Vital Statistics refers to the types of formal records used for the extraction of the data.

Reliability and validity can be reported in the study or in a separate study. For example, some standard assessment tools have known reliability and validity.

WITHDRAWALS AND DROP-OUTS

Score YES if the authors describe BOTH the numbers and reasons for withdrawals and drop-outs.

Score NO if either the numbers or reasons for withdrawals and drop-outs are not reported.

The percentage of participants completing the study refers to the % of subjects remaining in the study at the final data collection period in all groups (i.e. control and intervention groups).

INTERVENTION INTEGRITY

The number of participants receiving the intended intervention should be noted (consider both frequency and intensity). For example, the authors may have reported that at least 80 percent of the participants received the complete intervention. The authors should describe a method of measuring if the intervention was provided to all participants the same way. As well, the authors should indicate if subjects received an unintended intervention that may have influenced the outcomes. For example, co-intervention occurs when the study group receives an additional intervention (other than that intended). In this case, it is possible that the effect of the intervention may be over-estimated. Contamination refers to situations where the control group accidentally
receives the study intervention. This could result in an under-estimation of the impact of the intervention.

**ANALYSIS APPROPRIATE TO QUESTION**

Was the quantitative analysis appropriate to the research question being asked? An intention-to-treat analysis is one in which all the participants in a trial are analyzed according to the intervention to which they were allocated, whether they received it or not. Intention-to-treat analyses are favoured in assessments of effectiveness as they mirror the noncompliance and treatment changes that are likely to occur when the intervention is used in practice, and because of the risk of attrition bias when participants are excluded from the analysis.
Component Ratings of Study:
For each of the six components A – F, use the following descriptions as a roadmap.

**SELECTION BIAS**

**Strong**: The selected individuals are very likely to be representative of the target population (Q1 is 1) and there is greater than 80% participation (Q2 is 1).

**Moderate**: The selected individuals are at least somewhat likely to be representative of the target population (Q1 is 1 or 2); and there is 60 - 79% participation (Q2 is 2). ‘Moderate’ may also be assigned if Q1 is 1 or 2 and Q2 is 5 (can’t tell).

**Weak**: The selected individuals are not likely to be representative of the target population (Q1 is 3); or there is less than 60% participation (Q2 is 3) or selection is not described (Q1 is 4); and the level of participation is not described (Q2 is 5).

**B) DESIGN**

**Strong**: will be assigned to those articles that described RCTs and CCTs.

**Moderate**: will be assigned to those that described a cohort analytic study, a case control study, a cohort design, or an interrupted time series.

**Weak**: will be assigned to those that used any other method or did not state the method used.

**C) CONFOUNDERS**

**Strong**: will be assigned to those articles that controlled for at least 80% of relevant confounders (Q1 is 2); or (Q2 is 1).

**Moderate**: will be given to those studies that controlled for 60 – 79% of relevant confounders (Q1 is 1) and (Q2 is 2).

**Weak**: will be assigned when less than 60% of relevant confounders were controlled (Q1 is 1) and (Q2 is 3) or control of confounders was not described (Q1 is 3) and (Q2 is 4).

**D) BLINDING**

**Strong**: The outcome assessor is not aware of the intervention status of participants (Q1 is 2); and the study participants are not aware of the research question (Q2 is 2).

**Moderate**: The outcome assessor is not aware of the intervention status of participants (Q1 is 2); or the study
participants are not aware of the research question (Q2 is 2); or blinding is not described (Q1 is 3 and Q2 is 3).

Weak: The outcome assessor is aware of the intervention status of participants (Q1 is 1); and the study participants are aware of the research question (Q2 is 1).

E) DATA COLLECTION METHODS

Strong: The data collection tools have been shown to be valid (Q1 is 1); and the data collection tools have been shown to be reliable (Q2 is 1).

Moderate: The data collection tools have been shown to be valid (Q1 is 1); and the data collection tools have not been shown to be reliable (Q2 is 2) or reliability is not described (Q2 is 3).

Weak: The data collection tools have not been shown to be valid (Q1 is 2) or both reliability and validity are not described (Q1 is 3 and Q2 is 3).

F) WITHDRAWALS AND DROP-OUTS - a rating of:

Strong: will be assigned when the follow-up rate is 80% or greater (Q2 is 1).

Moderate: will be assigned when the follow-up rate is 60 – 79% (Q2 is 2) OR Q2 is 5 (N/A).

Weak: will be assigned when a follow-up rate is less than 60% (Q2 is 3) or if the withdrawals and drop-outs were not described (Q2 is 4).
Appendix 4: Adaptation to blinding component of the EPHPP
For the purpose of the study, the component of the EPHPP concerned with blinding was adapted depending on the type of attachment measures used and specifically the person who rated the measure, i.e. participants for self-report measures or independent assessor for interviews. For those studies where outcome was assessed by an assessor, it was established whether these assessors were blind to the intervention status and the purpose of the study. However, it was not considered important for participants to be blind since their expectations were unlikely to influence the ratings of their interviews. For studies using client-rated measures, it was assessed whether participants completed measures by themselves or were assisted by a researcher and whether participants were blind to the purpose of the study. In accordance with the guidelines, studies were rated moderate if none of the information was recorded.
Appendix 5: Author Guidelines for the British Journal of Clinical Psychology
**Author Guidelines**

The British Journal of Clinical Psychology publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour through to studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis.

The following types of paper are invited:

- Papers reporting original empirical investigations
- Theoretical papers, provided that these are sufficiently related to the empirical data
- Review articles which need not be exhaustive but which should give an interpretation of the state of the research in a given field and, where appropriate, identify its clinical implications
- Brief reports and comments

1. Circulation

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

2. Length

Papers should normally be no more than 5000 words (excluding abstract, reference list, tables and figures), although the Editor retains discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length.

3. Submission and reviewing

All manuscripts must be submitted via [http://www.editorialmanager.com/bjcp/](http://www.editorialmanager.com/bjcp/). The Journal operates a policy of anonymous peer review. Before submitting, please read the terms and conditions of submission and the declaration of competing interests.

4. Manuscript requirements
• Contributions must be typed in double spacing with wide margins. All sheets must be numbered.
• Manuscripts should be preceded by a title page which includes a full list of authors and their affiliations, as well as the corresponding author's contact details. A template can be downloaded from here.
• Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.
• Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate sheet. The resolution of digital images must be at least 300 dpi.
• All papers must include a structured abstract of up to 250 words under the headings: Objectives, Methods, Results, Conclusions. Articles which report original scientific research should also include a heading 'Design' before 'Methods'. The 'Methods' section for systematic reviews and theoretical papers should include, as a minimum, a description of the methods the author(s) used to access the literature they drew upon. That is, the abstract should summarize the databases that were consulted and the search terms that were used.
• All Articles must include Practitioner Points – these are 2–4 bullet points to detail the positive clinical implications of the work, with a further 2–4 bullet points outlining cautions or limitations of the study. They should be placed below the abstract, with the heading ‘Practitioner Points’.
• For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full.
• SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.
• In normal circumstances, effect size should be incorporated.
• Authors are requested to avoid the use of sexist language.
• Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright. For guidelines on editorial style, please consult the APA Publication Manual published by the American Psychological Association.

5. Brief reports and comments
These allow publication of research studies and theoretical, critical or review comments with an essential contribution to make. They should be limited to 2000 words, including references. The abstract should not exceed 120 words and should be structured under these headings: Objective, Method, Results, Conclusions. There should be no more than one table or figure, which should only be included if it conveys information more efficiently than the text. Title, author name and address are not included in the word limit.

6. Supporting Information
BJC is happy to accept articles with supporting information supplied for online only publication. This may include appendices, supplementary figures, sound files, videoclips etc. These will be posted on Wiley Online Library with the article. The print version will have a note indicating that extra material is available online. Please indicate clearly on submission which material is for online only publication. Please note that extra online only material is published as supplied by the author in the same file format and is not copyedited or typeset. Further information about this service can be found at http://authorservices.wiley.com/bauthor/suppmat.asp

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8. Colour illustrations
Colour illustrations can be accepted for publication online. These would be reproduced in greyscale in the print version. If authors would like these
figures to be reproduced in colour in print at their expense they should request this by completing a Colour Work Agreement form upon acceptance of the paper. A copy of the Colour Work Agreement form can be downloaded here.

9. Pre-submission English-language editing
Authors for whom English is a second language may choose to have their manuscript professionally edited before submission to improve the English. A list of independent suppliers of editing services can be found at http://authorservices.wiley.com/bauthor/english_language.asp. All services are paid for and arranged by the author, and use of one of these services does not guarantee acceptance or preference for publication.

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Prior to acceptance there is no requirement to inform an Editorial Office that you intend to publish your paper OnlineOpen if you do not wish to. All OnlineOpen articles are treated in the same way as any other article. They go through the journal's standard peer-review process and will be accepted or rejected based on their own merit.

11. Author Services
Author Services enables authors to track their article – once it has been accepted – through the production process to publication online and in print. Authors can check the status of their articles online and choose to receive automated e-mails at key stages of production. The author will receive an e-mail with a unique link that enables them to register and have their article
automatically added to the system. Please ensure that a complete e-mail address is provided when submitting the manuscript. Visit http://authorservices.wiley.com/bauthor/ for more details on online production tracking and for a wealth of resources including FAQs and tips on article preparation, submission and more.

12. The Later Stages
The corresponding author will receive an email alert containing a link to a web site. A working e-mail address must therefore be provided for the corresponding author. The proof can be downloaded as a PDF (portable document format) file from this site. Acrobat Reader will be required in order to read this file. This software can be downloaded (free of charge) from the following web site:
This will enable the file to be opened, read on screen and annotated direct in the PDF. Corrections can also be supplied by hard copy if preferred. Further instructions will be sent with the proof. Hard copy proofs will be posted if no e-mail address is available. Excessive changes made by the author in the proofs, excluding typesetting errors, will be charged separately.

13. Early View
British Journal of Clinical Psychology is covered by the Early View service on Wiley Online Library. Early View articles are complete full-text articles published online in advance of their publication in a printed issue. Articles are therefore available as soon as they are ready, rather than having to wait for the next scheduled print issue. Early View articles are complete and final. They have been fully reviewed, revised and edited for publication, and the authors’ final corrections have been incorporated. Because they are in final form, no changes can be made after online publication. The nature of Early View articles means that they do not yet have volume, issue or page numbers, so they cannot be cited in the traditional way. They are cited using their Digital Object Identifier (DOI) with no volume and issue or pagination information. E.g., Jones, A.B. (2010). Human rights Issues. Human Rights Journal. Advance online publication. doi:10.1111/j.1467-9299.2010.00300.x
Further information about the process of peer review and production can be found in this document: What happens to my paper?
Appendix 6: Core Outcome Measure

(submitted in plastic wallet)
Appendix 7: Experience in Close Relationships Scale

(submitted in plastic wallet)
Appendix 8: Working Alliance Inventory

(submitted in plastic wallet)
Appendix 9: Client Attachment to Therapist Scale

(submitted in plastic wallet)
Appendix 10: Patient Information Sheet
Participant Information Sheet:
Factors associated with Success in Therapy (FaST)

You are being invited to take part in a research study. Before you decide if you want to take part, it is important for you to understand why the research is being done and what it will involve. You can contact Julia Rietzschel on 07903033376 to go through the information with you and ask her any questions you have. If you decide that you do not wish to participate, we would be very grateful if you could return this pack uncompleted to your therapist at the first session.

What is the purpose of the study? We want to find out whether the way in which people form relationships can explain why some people do better in therapy than others. This project is being completed as part of a Doctorate in Clinical Psychology and is funded by the University of Manchester.

Why have I been invited to take part? We are approaching all people who have been referred to this Primary Care Mental Health Service for psychological therapy. We would like to recruit a total of 60 clients in Primary Care Mental Health Services.

What will I have to do if I take part? You will be asked to complete a total of 6 questionnaires at 3 different times:
1) 2 questionnaires before you start therapy, taking about 10 minutes
2) 2 after your 3rd therapy session (about 10min)
3) 2 more after your second-last therapy session (about 10min).

The questionnaires will ask about your mental health, the way in which you form relationships and about your relationship with your therapist. In addition, you will be given a brief form (‘Personal details’ form) to record some basic information about yourself, e.g. age (2min). For some information, such as number of CBT sessions, the researcher may need to look at your records at the mental health service.
Participation in this research is entirely voluntary. If you choose not to take part, then this will not affect your care in any way. You are free to withdraw from the study at any time without giving a reason. If you withdraw from the study we will, however, need to use the data collected up to your withdrawal.

In compensation for your participation, you will receive a cheque of £5. This will be sent to you once we have received the six completed questionnaires from you.

Information about you will be kept strictly confidential. Only the questionnaire on your mental health problems (CORE-OM) will be shared with your therapist. Any of the other information you provide will only be available to the researcher and will not be shared with your therapist or anyone else. We do, however, have a responsibility to inform your therapist if you give information that suggests you or someone else might be harmed. Your name will be removed from the questionnaires and the ‘Personal details’ form, as soon as we receive them, and you will be allocated a study number. All your information will be stored at the University of Manchester in a locked filing cabinet in a secured office. As you are under the care of a mental health NHS Trust, a copy of your consent form will be copied into your records and this may be looked at by regulatory authorities.

What are the possible benefits? We cannot promise the study will help you, but the information we get from this study will help us understand how therapy may be improved, which we hope will ultimately lead to better outcomes for service users.

What are the possible risks of taking part? The study is unlikely to cause you any distress or harm and you do not have to answer any questions you do not want to. If you do feel distressed, you can contact your therapist or the researcher on 07903033376.

What do I do now? Please contact us if you have any further questions or would like to take part. You can contact us by sending a
text message or calling 07903033376. You can also send an e-mail to the address shown above or complete the form ‘Consent to be contacted’ and return it to us in the stamped addressed envelope. When contacting us, please provide your name and contact number and a time when you prefer to be contacted. Julia Rietzschel will then contact you at your specified time and answer any of your questions about the research.

What happens when I decide to take part? You will be sent 2 consent forms (1 for us and 1 for you to keep), 1 ‘Personal details’ form and the first 2 questionnaires. You will be asked to complete the forms and the questionnaires, seal them in an addressed envelope and give it to your therapist at your first appointment. The therapist will then pass it on to the researcher, but will not be allowed to open and look inside the envelope. After your third and your second-last therapy session, the therapist will give you the other questionnaires and ask you to complete them in the waiting area. You then have the option of returning them by post in the stamped addressed envelope provided or handing them back to your therapist at the next session. With your permission, we would like to contact you to remind you to send the questionnaires if we do not receive them within 7 working days of your appointment.

What will happen to the results of the study? It is anticipated that the results will be published in an academic journal and presented at academic conferences. You will not be identified in any reports. If you would like a written summary of the research findings, within the next 12 months, please provide your preferred contact details on the consent form.

What do I do if I have any concerns? Please contact the researcher who will do her best to answer your questions. If you wish to make a complaint, you can contact the University Research Practice and Governance Coordinator on 0161 2757583 or 0161 2758093. The normal NHS complaints mechanisms will also be available to you.

Thank you very much for considering taking part in our research.
Appendix 11: Consent Form
Title of study: Factors associated with Success in Therapy (FaST)

Name of Investigator: Julia Rietzschel

Please initial the boxes

1. I confirm that I have read and understand the information sheet dated 13th March 2011 (version 2) for the above study and any questions that I asked to the researcher were answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical/psychological care or legal rights being affected.

3. I understand that relevant sections of my records at the service and data collected during the study may be looked at by the researcher and individuals from regulatory authorities or from the NHS Trust where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.

4. I consent to being contacted by the researcher to be reminded of sending the completed questionnaires.

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

Name of Service User __________________________ Date ____________ Signature __________________________