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A Systematic Review of the Effect of Therapists' Internalised Models of Relationships on the Quality of the Therapeutic Relationship

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The quality of the therapeutic relationship has been identified as a key factor in predicting client outcomes, accounting for around 8% of variation (Horvath, Del Re, Flückiger, & Symonds, 2011; Martin, Garske, & Davis, 2000; Wampold, 2001). Although therapist factors have been seen as less relevant to therapeutic relationship quality than client factors, focus on therapist factors has steadily increased in line with the view that the therapist responds differently to different clients, due to their own personal characteristics and unconscious processes. Relational theory suggests that the therapist's particular qualities combine with the client's particular qualities to form a unique interpersonal context (e.g. Wachtel, 2008). Safran and Muran (2000) suggest that the interpersonal context is heavily influenced by client and therapist internalised patterns of relating formed in early childhood. Evidence shows that certain therapist factors do affect therapeutic relationship quality; the qualities of dependability, warmth and responsiveness in therapists have all been found to create stronger alliances (Ackerman & Hilsenroth, 2003). The importance of these mostly interpersonal characteristics imply that the internalised relational models of therapists may also be important in determining the type of relationship that is built and the therapeutic processes occurring within.

Therapists' Internalised Relational Models

An 'internal working model' is the term given by Bowlby (1969) to the set of principles used to predict how the world operates. Internal working models fall into two categories: models of others and models of self. Attachment style (Bowlby, 1969) and 'introject' (Henry, Schacht, & Strupp, 1990) are descriptions of internal working models which have been operationalised in a measurable way. Within attachment theory, internal working models of others predict how relationships with others work, whereas introject

(Benjamin, 1974) concerns the relationship with self. Both attachment style and introject may operate unconsciously and affect people's ability to form relationships (Ligiéro & Gelso, 2002; Hilliard, Henry & Strupp, 2000).

Attachment theory. Attachment Theory provides an explanation of a person's characteristic manner of relating in intimate relationships (Norcross, 2011). Attachment styles are reflected in the patterns played out in one's relationships (Hazan & Shaver, 1987). Securely-attached adults have been found able to value and maintain intimate relationships without losing autonomy, and to discuss relationship issues thoughtfully and coherently (Bartholomew & Horowitz, 1991). Conversely, issues arising from insecure attachment styles, such as less skilled emotional regulation and lower awareness of feelings, lead to difficulties in relationship formation and maintenance (Ligiéro & Gelso, 2002). Currently, people's manner of relating is most often categorised into attachment styles forming two orthogonal dimensions: avoidance and anxiety, forming four 'types': secure, preoccupied, dismissing and fearful (Brennan, Clark, and Shaver, 1998). Mikulincer and Shaver (2007) posit that people with non-secure attachment use coping strategies to manage resultant anxiety: people high on the anxiety dimension use hyperactivation behaviours aimed at gaining closer proximity to the attachment figure, where as people high on the avoidance dimension act to avoid proximity. If these behaviours appear within the therapeutic relationship context, specific combinations of attachment type could significantly affect the nature of the therapeutic relationship, for example, a client and therapist high in avoidance might experience a distant relationship.

Bowlby (1988) hypothesised that dynamics manifesting in the therapeutic relationship partially result from clients' and therapists' attachment histories. Evidence is

starting to indicate that client attachment styles may affect therapeutic outcome and can determine the extent to which clients are likely to benefit from psychotherapy, although this research is in its infancy (Daniel, 2010). Regarding therapist attachment styles, there is debate as to whether the therapist's attachment system is activated by the client, and thus whether it can affect alliance and outcome (e.g. Black, Hardy, Turpin, & Parry, 2005; Ligiéro & Gelso, 2002).

Introject. Whereas attachment theory focuses on a person's style of relating to others, introject concerns how that person relates to themselves, for example, how they internally comment upon their own behaviour (Henry et al., 1990). This concept owes much to Object Relations theory which proposes that early experiences of the infant with their caregiver create enduring set of assumptions about the self and others. Introject may be understood as a detailed conceptualisation of what Bowlby and others would call an internal working model of self. Although therapist introject has been seen as less relevant to alliance quality than therapist attachment style, relational theories placing the therapist as an active participant in the therapy relationship see the intra-psychic processes of the therapist as a key determinant of relationship quality (Benjamin, 1982).

The notion of introject is derived from Sullivanian psychodynamic Interpersonal Theory (Sullivan, 1953) and has been operationalised in a therapy process coding system called the Structural Analysis of Social Behavior (SASB; Benjamin, 1974). Introject is measured across two dimensions: Autonomy (self-freeing to self-controlling) and Affiliation (friendly: self-accepting, self-nurturing, self-helping to hostile: self-critical, self-destructive, self-neglectful) (Henry et al., 1990). Client introject has been shown to affect the processes and outcome of therapy, for example, clients with more negative

introjects are less likely to have a positive outcome as assessed by therapists (Talley, Strupp, & Morley, 1990). A client with a negative introject is less likely to be able to engage with the process of therapy. In addition to this, certain combinations of therapist/client introject may perpetuate their negative introject, e.g. where both client and therapist are self-critical or self-destructive. Given the effect of client introject upon therapy outcome, it is logical to assume that therapist introject may also be a potential therapeutic relationship determinant, alongside therapist attachment style.

The Therapeutic Relationship

The therapeutic relationship is here defined as the "feelings and attitudes that therapist and client have toward one another and the manner in which they are expressed" (Norcross & Lambert, 2011, p4). This broadens the narrower conceptualisation of the therapeutic relationship used in previous reviews (e.g. Berant & Obegi, 2008; Degnan, Seymour-Hyde, Harris, & Berry, 2014) which only considered literature using client and therapist ratings of the therapeutic relationship. Our broader definition encompasses relevant, yet less direct indicators such as the therapist's interpersonal behaviour and in-session emotional experience, such as countertransference. It is hoped that a wider range of metrics may measure important aspects of the therapeutic relationship not captured by self-report measures, thus adding richness to the review. For the purposes of this review, these less direct markers of the therapeutic relationship are confined to those that have been studied with regard to therapists' internalised models. Other possible factors, such as the 'real relationship' (Gelso et al., 2010), have not yet been empirically linked to attachment styles or introject.

Purpose of Review

Despite increasing evidence suggesting that clients' internalised relational models can affect the therapeutic relationship, less attention has been paid to those of the therapist (Lopez & Brennan, 2000). Previous reviews focusing solely on therapist attachment styles have presented conflicting findings. Berant and Obegi (2008) found preliminary evidence supportive of Bowlby's prediction that securely-attached therapists are better placed to foster a stronger therapeutic relationship. Daniel (2010) found mixed evidence for this association. She concluded that the unequal nature of the therapeutic relationship might favour clients' attachment patterns over therapists' as predictors of the alliance, or perhaps that a narrower range of attachment styles among therapists compared to their clients, makes therapist effects difficult to detect. Degnan and colleagues (2014) regarded the evidence as sufficiently convincing to recommend that therapists take account of their attachment style within therapy. All reviews noted the interaction of client and therapist attachment styles as an area for further research.

Although helpful, these reviews have either lacked a systematic and replicable methodology (e.g. Daniel, 2010; Berant & Obegi, 2008), or excluded literature on therapist introject and focused solely on alliance measures (e.g. Degnan et al., 2014). As well as broadening the concept of internalised relational models beyond attachment by including introject, we have also questioned whether alliance is too narrow a concept to encompass therapeutic relationship factors. Therefore, this review includes the broader range of relationship factors emerging from the literature, giving access to a larger range of relevant papers: twenty-two papers were reviewed versus 11 identified by Degnan and colleagues (2014). The current systematic review seeks to address four questions:

1) Does secure therapist attachment security/insecurity result in a more positively-

rated therapeutic relationship? 2) Does positive therapist introject result in a more positively-rated therapeutic relationship than negative therapist introject? 3) Which interactions of patient-therapist attachment styles or introjects relate to therapeutic relationship quality? 4) Does the broadening of the inclusion criteria for relationship factors to include non-direct relationship factors provide new insights, or can alliance be used as a proxy for relationship factors? In addition we wanted to evaluate the methodological quality of existing research.

Method

Search Strategy

The Database of Abstracts of Reviews of Effects (DARE) and the Cochrane Database of Systematic Reviews (CDSR) were searched to ensure no similar reviews existed. Systematic searches were used to interrogate multiple online data sources accessed via the Web of Knowledge and NHS Evidence Healthcare Databases. Abstract databases used were psycINFO, CINAHL, MEDLINE and AMED. Search terms were generated from an initial scan of key articles in each area of literature:

1. "internal* relation* world" OR "internal* working model"
2. "attachment" OR "attachment style"
3. "introject" OR "self*image" OR "self*concept" OR "structural analysis of social behaviour"
4. "psychotherapist" OR "therapist" OR "clinician" OR "counsel*or"
5. "therap* alliance" OR "therap* relationship" OR "alliance"
6. "transference" OR "countertransference"

Where possible, keywords were exploded using the mapped thesaurus function to augment search terms.

Eligibility Criteria

Literature was restricted to studies incorporating at least one measure from Group A and at least one measure from Groups B or C below: A: Measures of practitioners' internalised relational models including attachment style, introject, completed by therapist or researcher; B: Measures of therapeutic relationship completed by client, therapist or supervisor; C: Measures of therapeutic relationship factors, including countertransference, feelings towards clients, client attachment to therapist, client reported session-depth, hostile or disaffiliative therapist in-session behaviours as observed by SASB or similar coding systems; these can be completed by client, therapist, supervisor or researcher. Criteria for A and B arose from theory, whereas the factors in C arose empirically. To be eligible, studies had a) to be in English, b) be published in a peer-reviewed journal, c) clinicians sampled had to be primarily involved in the delivery of psychological therapy and d) sampled clients had to be over 18. In order to be representative of the field, the review considered all study designs reporting the effects of therapists' internalised models of relationships on the therapeutic relationship. Hypothetical studies, using artificially generated material were included as well as real-life therapeutic interactions. Cross-sectional and longitudinal studies were included. No restrictions were placed on year of publication.

Study Selection

The final literature search was done on June 12th, 2016 by the first author. Of the 6,619 records generated, 134 full texts were assessed for eligibility by the first author

resulting in 13 studies being selected. Papers not meeting the eligibility criteria were eliminated, most commonly papers using measures from Group A but not Groups B or C. In unclear cases, papers were discussed with all three authors and consensus was reached through discussion. Further literature was identified through other means, including reference lists in key studies (see Figure 1).

Study Analysis

Checklists from the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (Liberati, Altman, Tetzlaff, Mulrow, et al., 2009) were used to create a standardized data extraction form. The 'PICOS' dimensions (patient population, intervention, comparator, outcomes and study design) were adapted to the nature of the data; the category of 'intervention' was replaced with 'context', the category 'comparator' was omitted, and the category of 'outcome' was replaced by 'measure'. Each study was subject to this uniform appraisal protocol completed initially by the first author. Then, in order to clearly illustrate the authors' evaluation of each piece of research, studies were categorised as 'strong, 'medium' and 'weak'. These qualitative categories are loosely based on analysis of adapted PICOS dimensions described above. They represent the consensus views of the three authors and are included to aid the reader's assimilation of a large amount of material rather than being a systematic or definitive coding of the studies reviewed. In providing an indication for the quality of each study, the following features were taken into account: sample size and quality, quality of measures, study design and rigor of data analysis. Studies classified as 'medium' had a weakness in one of these areas. 'Weak' studies were flawed in multiple

areas. The authors have a particular interest in alliance and outcome and as such were wary of their own potential biases.

Results

Study Selection

One hundred and thirty four studies were screened for inclusion, 113 of which were excluded. The remaining studies were examined and of these, 13 studies were selected; a hand search of reference lists revealed an additional 9 studies (see Figure 1).

For clarity, the studies are grouped by subject according to the type of internalised relational model (i.e. attachment and/or introject) and the means of measuring the therapeutic relationship (i.e. direct measure or non-direct measure) rather than by methodology. We have used the term 'direct measure' to refer to a client or therapist-completed measure of the therapeutic relationship. We have used the term 'non-direct measure' to refer to alternative metrics relating to the therapeutic relationship, including countertransference, therapist feelings towards client and therapist perception of problems within the alliance. The first group of papers concern the effects of therapist attachment on direct measures of the therapeutic relationship (table 1). The second group of papers look at therapist attachment in relation to non-direct measures of therapeutic relationship including measures of countertransference (table 2). The third group examines therapist introject and direct measures of the therapeutic relationship (table 3). The fourth group (table 4) concerns therapist introject and non-direct measures of the therapeutic relationship. Some papers straddle two or more groups. In tables 1-4, the

authors have included a column which presents a qualitative summary of the overall contribution of each paper. Tables 5, 6a and 6b provide an assessment of measure quality.

Therapist attachment style and direct reports of the therapeutic relationship

Evidence of main effect. Of 14 studies published, 12 investigated therapist attachment style and two (Bruck, Winston, Aderholt, & Muran, 2006; Dunkle & Friedlander, 1996) investigated both therapist attachment and introject. Six of the fourteen studies reported evidence that therapist attachment significantly influenced therapeutic relationships. One of these was rated by the reviewers as 'strong' quality evidence (Dunkle & Friedlander, 1996), four studies were rated as 'medium', including two longitudinal studies, and one was rated as 'weak', due to limitations of internal validity. A statement about overall effect size was precluded by variation in attachment and alliance measures used, and also the nature of the statistical analysis.

The impact of therapist attachment over time was shown to be significant in the two longitudinal studies. Sauer, Lopez, and Gormley (2003) found that therapeutic relationship ratings were initially higher for anxiously-attached therapists, as measured by the Adult Attachment Inventory (George, Kaplan & Main, 1996), but became less positive over time. Although a small sample affected external validity, these were significant findings due to substantial effect sizes (r >.50). Dinger, Strack, Sachsse, and Schauenburg (2009) replicated elements of this study, this time using the Adult Attachment Interview (AAI; George et al., 1996), also identifying a decline in alliance quality over time for highly preoccupied therapists, but only with highly interpersonally-distressed clients. They found that anxiously-attached therapists have a lower level of alliance quality as rated by clients.

The four cross-sectional studies supported an association between securely-attached therapists and more positive therapeutic relationships, either client, therapist or observer-rated, as follows. Dunkle and Friedlander (1996) using a large sample and good quality measures, including the Adult Attachment Scale (Collins & Read, 1990), found that securely-attached therapists were more likely to achieve higher client ratings of therapeutic relationships. Black, Hardy, Turpin & Parry (2005) found that securely-attached therapists, as rated by the Attachment Style Questionnaire (Feeney, Noller & Hanrahan, 1994), were more likely to rate their therapeutic relationships positively than insecurely-attached therapists (small/medium effect size). Attachment style accounted for 11.9% of variation in therapist-rated alliance. Bruck and fellow researchers (2006) found that secure attachment in therapists, measured by the Relationship Scale Questionnaire (Griffin & Bartholomew, 1994), correlated with stronger therapist-reported alliance (medium effect size) although not client-reported alliance; this should be noted as a weakness in the evidence since client-reported alliance is a stronger predictor of outcome. A smaller study found that staff with lower attachment anxiety were more likely to be rated as having a positive therapeutic relationship (Berry, Shah, Cook, Geater, Barrowclough & Wearden,2008).

Across these studies, secure attachment was found to affect the therapeutic relationship most reliably, leading to a more positively-rated alliance in three of the four papers. In the two higher quality studies (Dunkle & Friedlander,1996; Black et al., 2005), all types of insecure attachment negatively affected the therapeutic relationship. In the two less robust studies, only preoccupied and anxious attachment were identified as damaging.

Evidence of interaction effect. The remaining eight of the 14 studies found no evidence that therapist attachment alone influences the therapeutic relationship. However, the majority of these studies suggested that interactions between therapist attachment style and client factors affect the therapeutic relationship (Tyrrell, Dozier, Teague, & Fallot, 1999; Schauenburg et al., 2010; Marmarosh et al., 2014; Petrowski, Nowacki, Pokorny, & Buchheim, 2011; Bucci, Seymour-Hyde, Harris, & Berry, 2015). These five cross-sectional studies were rated as strong evidence with the exception of Bucci et al. (2015), mostly using regression analysis and good quality measures. Effect sizes were available in three of the five studies and these range between large to medium.

Overall, evidence supported Bowlby's suggestion that there are complementary client/therapist attachment combinations; maladaptive attachment strategies can be helpfully disconfirmed by a therapist with an opposing attachment style, presumably resulting in a stronger and more productive alliance. For example, Tyrrell et al. (1999) found less deactivating (analogous with less dismissing attachment) clinicians formed stronger alliances with more deactivating clients using the AAI; therapists who were more securely-attached (measured by the AAI) had stronger alliances with more interpersonally-distressed clients (Schauenburg et al., 2010); clients who were more insecurely-attached (highly pre-occupied/disorganised) rated alliance more highly with dismissing as opposed to preoccupied therapists, in a study using the AAI (Petrowski et al., 2011); more anxiously attached therapists, as rated by the Experience of Close Relationships Questionnaire (ECR; Brennan, Clark & Shaver, 1998), gained higher client-rated alliances with less anxiously attached clients (and vice versa) (Marmarosh et al., 2014); therapist insecure attachment, rated by the Relationship Questionnaire (Hazan

& Shaver, 1987), correlated negatively with alliance in more symptomatic clients and there was evidence suggestive of opposing therapist-client attachment styles resulting in stronger client-reported alliance (Bucci et al., 2015).

Of the three studies finding no evidence of interactions, two were rated as medium quality and one as strong (see table 1). One study was longitudinal (Romano, Fitzpatrick & Janzen, 2008), all used validated measures of attachment (the ECR and the RQ) and therapeutic relationship, but two studies relied on less sophisticated data analysis.

Summary of therapists' attachment style and direct measures of therapeutic relationship. In conclusion, the eight studies that found no significant main effect of therapist attachment on the quality of the therapeutic relationship had a more robust level of construct validity, internal validity and generalisability than the six studies showing a main effect. However, it seems that the findings may have been influenced by the different attachment constructs measured, meaning that these seemingly opposing results may not be contradictory. Overall, evidence using self-reported attachment measures tended to support the association of attachment with the quality of the therapeutic relationship, whilst evidence measuring attachment with the interview-based AAI suggested the importance of a combination of therapist and client attachment styles. Only three studies found therapist attachment style to be unrelated to the therapeutic relationship, directly or through interaction (Ligiéro & Gelso, 2002; Romano et al., 2008; Wongpakaran & Wongpakaran, 2012). This evidence suggests that therapist attachment styles do have an impact upon the therapeutic relationship.

Therapists' Attachment Style and Non-direct Measures of Therapeutic Relationship

Eight studies investigated the effect of therapists' attachment style on alternative indicators of the therapeutic relationship, including countertransference (Ligiéro & Gelso, 2002; Mohr, Gelso, & Hill, 2005; Martin, Buchheim, Berger, & Strauss, 2005), level of therapist empathy (Rubino, Barker, Roth, & Fearon, 2000), problems in therapy (Black et al., 2005) and client attachment to therapist (Romano et al., 2008; Petrowski, Pokorny, Nowacki, & Buchheim 2013; Wiseman & Tishby, 2014). See table 2.

Summary of therapists' attachment style and non-direct measures of therapeutic relationship. ***Empathy and problems in therapy.*** Two of two medium quality studies found that non-securely attached therapists showed less empathy. Rubino and colleagues (2000) found that more anxiously-attached therapists (as measured by the RSQ) showed less empathy than less anxiously-attached therapists to video vignettes of ruptures. Black and colleagues (2005) found that more insecurely-attached therapists (measured by the ASQ) were significantly more likely to report problems in therapy. Therapist attachment style accounted for an additional 7.5% of variance in reported problems above and beyond therapist personality factors. A preoccupied therapist attachment style most strongly correlated with therapist-reported problems in therapy (r(464 = .322) showing a medium effect size.

Despite some methodological issues in both studies, (see table 2), conclusions are suggestive that a less secure therapist attachment style a) decreases the level of empathy felt by therapists and b) increases the problems experienced in therapy, which are likely to affect the therapeutic relationship.

Countertransference. Regarding countertransference, evidence was inconclusive with only one of three studies finding an effect of therapist attachment style on countertransference. Mohr and colleagues (2007) reported a significant effect of therapist attachment on countertransference. This study was rated as medium quality. Despite strengths, including use of a good quality measure (ECRS) and sophisticated analysis, the sample was narrow in provenance. The two other studies that found no effects were rated strong (Ligiéro & Gelso, (2002) and medium quality (Martin et al., 2007). The latter study relied on the assumption that a read transcript would evoke the same reactions as a real-life clinical situation.

Mohr and colleagues (2005) found evidence of a significant association between therapist attachment and countertransference behaviour, although there internal validity may have been limited due to reliance on a single, first session. However, despite the moderate sample (n=27), a significant main-effect was found, such that therapists with dismissing attachment style were more likely to be rated by supervisors as displaying hostile countertransference. This suggests that even a first interaction can activate therapist attachment style sufficiently to manifest in countertransference. Significant interactions also emerged between client and therapist attachment style; a client with preoccupied attachment in combination with a therapist with a fearful or dismissing attachment style was more likely to be rated as evoking hostile or distancing countertransference. In summary, evidence is mixed and the two strongest studies have differing conclusions, suggesting more evidence is needed to clarify the relationship between therapist attachment style and countertransference.

Client Attachment. Three studies of strong quality showed that measures of client attachment to their therapists did relate to therapist attachment style. Effect sizes were not available due to the the nature of the analysis used. Wiseman and Tishby (2014) found that higher therapist anxious attachment related to lower client attachment to the therapist at session five. Romano et al. (2008) identified a significant interaction whereby high client global attachment anxiety combined with moderate levels of counsellor global attachment avoidance predicted lower client-perceived session depth. Petrowski and colleagues (2013) found that the more preoccupied the therapist's attachment style, the more their clients manifested a preoccupied-merged attachment style (preoccupation about, and desire for increased closeness with the therapist). They also found that the more dismissive a therapists' attachment style, the more patients experienced an avoidant-fearful attachment to their therapist.

Therapist Introject and Direct Measures of Therapeutic Relationship

Three studies investigated therapist introject in relation to measures of therapeutic alliance (Dunkle & Friedlander, 1996; Hersoug, Hoglend, Havik, & Monsen, 2001; Bruck et al., 2006).

Summary of therapist introject and direct measures of therapeutic relationship. Two of three studies showed some impact of therapist introject upon therapeutic relationship. The exact nature of the impact was not consistent across the studies. Whereas Dunkle and Friedlander (1996) found that therapists with less negative introject had a more positive client-rated bond, Hersoug and colleagues (2001) found that high self-attacking introject was related to better client-rated alliance. This latter finding is dubious due the small number of therapists high in 'self-attack' (see table 3). Hersoug

and colleagues also found a possible link between self-attacking introject and worse therapist rated-alliance.

Regarding the quality of the studies, Bruck and colleagues' (2006) study was methodologically the weakest of three studies, using the least sophisticated method of analysis, and the smallest sample size, although the studies were very similar in their choice of measures. Overall, this evidence is suggestive of an effect of therapist introject on client-rated alliance, but the specifics are unclear.

Therapist Introject and Non-direct Measures of Therapeutic Relationship

Two studies assessed the impact of therapist introject on non-direct measures of the therapeutic relationship. Holmqvist and Armelius (2000) examined staff feeling towards clients and Henry et al. (1990) examined the hypothesis that therapists with self-hostile introjects (e.g. self-blaming) are likely to engage in a high level of problematic interpersonal processes. Holmqvist and Armelius (2000) used a large naturalistic sample in a longitudinal study and Henry et al. (1990) used recorded data from a larger research trial comparing dyads distinguished by good and poor outcomes.

Summary of the effect of therapist introject on non-direct measures of therapeutic relationship. Both studies examining the effect of therapist introject on aspects of the therapeutic relationship concluded that therapist introject significantly affected therapist in-session behaviour to the extent that it would affect the therapeutic relationship (Henry et al., 1990) and that 12% of variation in staff feeling towards clients is determined by 'self-image' (Holmqvist & Armelius, 2000). In the latter study, a positive introject which was not neglectful of self, and an image of a mother as loving were associated with more helpful feelings towards clients, whereas staff with introjects

that tended towards self-protection alongside negative images of both parents were associated with rejecting and unhelpful feelings. In addition, therapist gender altered the effects of therapist introject upon their manner of relating to clients. Specifically, negative feelings towards clients were associated with an image of a critical father in men and an image of a freedom-giving father in women.

In terms of quality, the small sample sizes resulting from the extreme groups analysis of 'good' or 'poor' outcomes groups of Henry and colleagues' (1990) study are offset by the extremely fine grained analysis of interpersonal behaviour offered by SASB. It has the advantage of being a system of coding which is relatively low inference and not reliant on self-report. The interesting study of Holmqvist and Armelius (2000) showed some methodological limitations including the high attrition rate of therapists over the five-year period and poor internal consistency of some scales within the Feeling Checklist which compromised construct validity. However, despite limitations, the findings of both studies are consistent with Introject Theory that a person's introject will impact upon their relationships (Sullivan, 1953). Therapist introject was found to markedly change the emotional tone of their interaction with clients (Henry et al., 1990) and their feelings towards clients (Holmqvist & Armelius, 2000).

Synthesis of Results

The current review identified 22 studies investigating the effect of therapists' internalised models of relationships on the therapeutic relationship (see table 7). Existing evidence is suggestive of a significant association: 18 of 22 studies found some evidence that therapists' internalised relational models impact upon the therapeutic relationship. Of the papers examining the effect of therapists' attachment style on direct measures of the

therapeutic relationship, six studies suggested a significant main-effect, and five other studies found therapist attachment to be significant in interaction with either clients' attachment style (four studies), or clients' level of pre-therapy impairment (one study). Only three of fourteen studies in the group found no association either singly or in interaction. Of the evidence using non-direct measures of relationship, two further studies found that therapist attachment affected how many problems are reported in therapy and feelings towards clients. There was some evidence to suggest that therapist attachment affects countertransference. All three studies examining links between therapist attachment and client attachment to therapist found some significant associations.

Negative therapist introject was found by four of five studies to have a significant effect on the therapeutic relationship, either in terms of direct reports of the therapeutic relationship or therapist feelings towards clients in self-report and observed behaviour.

Conclusion

Overall, this review finds that therapists' internalised relational models do affect the therapeutic relationship. Including both therapist introject and attachment style, and broadening the definition of the Therapeutic Relationship, this review has expanded upon and confirmed previous reviews that looked solely at the effect of therapist attachment style on alliance measures (Berant & Obegi, 2008; Degnan et al., 2014).

The variation in findings is noteworthy, with much evidence suggesting the importance of therapist internalised relational models to the therapeutic relationship; the exact pattern and magnitude of the relationship is unclear. It is uncertain whether therapist internalised models are always important *per se*, or only in interaction with

client internalised models. Also, our understanding of the patterns of interaction between therapist and client internalised relational models is still underdeveloped.

The variation in findings between studies identifying main-effects and those showing only interactions could be explained by methodological issues, including a lack of power due to sample size, differing construct validity of measures and differing data analysis methodology. In addition, covariates may have been omitted from studies that did not use regression or other more sophisticated analytic techniques.

Implications for Theory

With regard to the literature on therapist effects, evidence suggests that therapists' internalised relational models may contribute to differences in therapist performance (e.g. Dunkle & Friedlander, 1996). The early days of a therapists' life when their internal working models of themselves and others are formed appear to be highly relevant to their later activity as a therapist. Evidence now suggests that the therapist can not credibly be treated as a blank who responds in the same way to every different client. This corresponds with the attachment and psychoanalytic theories which, despite very different provenance, have much common ground, namely a belief in the importance of the early years in life in shaping the ability to form relationships, and the fact that these different styles are unconscious and hold sway throughout our lives.

Relating to Attachment Theory, the debate is far from settled between theorists who believe that clients are unlikely to activate therapists' attachment styles (e.g. Ligiéro & Gelso, 2002) and those who argue that therapist attachment style is central to alliance formation (e.g. Black et al., 2005). However, it is becoming clearer that therapist attachment style influences the therapeutic relationship sufficiently to be observable in

the majority of studies. Although not part of this review, another study (Dozier, Cue, and Barnett, 1994) has shown that attachment styles are relevant in other clinical relationships as well. The difference between categorical and dimensional approaches to attachment measurement is also important. Although the operationalisation of attachment theory originally led to categorical classifications, the orthogonal dimensions employed in understanding self-report measures are better designed to capture the subtle differences between individuals. As Fonagy states on this theme, the potential for both security and insecurity is likely to be present in all of us (Fonagy. 1999, p.469). In addition to this, the resulting non-categorical data is far better suited to regressional analysis.

Regarding the importance of introject, less evidence has been produced, but it mostly indicated that introject is relevant to therapists' ability to form a therapeutic relationship. In particular, Henry and colleagues (1990) highlighted the association of negative therapist introject with therapist hostility in the therapeutic relationship. Holmqvist and Armelius (2000) found that staff had much more helpful and autonomous feelings towards clients when they had non-neglecting introjects and an image of a mother as loving, whereas staff with protecting introjects and negative images of mother and father had rejecting, unhelpful and controlling feelings towards clients.

The precise mechanism that causes therapist internalised relational models to impact the therapeutic relationship is unclear. However, interesting work has identified that therapists with superior facilitative interpersonal skills, particularly relevant for addressing problems and ruptures, gain better results (Anderson, Ogles, Patterson, Lambert & Vermeesch, 2009). Perhaps therapist attachment style and introject may be linked to therapists' ability, both conscious and unconscious, to respond to difficulties in

the therapeutic relationship. The formation and resolution of ruptures naturally causes the therapeutic relationship to alter over time (Stiles & Goldsmith, 2010), thus more longitudinal research would aid our understanding of which therapists are more suited to overcoming therapeutic ruptures.

Interestingly, the AAI was more commonly used in the studies that found interaction between therapist and client attachment style, rather than a main effect for therapist attachment style. This contrasts with the larger number of studies which found a main effect for therapist attachment on the alliance using self- report measures. The AAI focuses on internal relational models from infancy, whereas self-report measures generally extrapolate attachment from material concerning current relationship functioning. This might indicate that constructs measured in self-report questionnaires a) differ from those measured by the AAI and b) relate more strongly to therapist's therapeutic relationship-forming abilities. It is possible that the therapist's self-reported functioning in current relationships is a better indicator of their attachment style as manifested in the therapeutic relationship than their descriptions of early caregivers. Crowell, Fraley, and Shaver (1999) stated that the significance of attachment is weaker when studies measure an area of attachment which is further from the area wherein the dependent variable operates. Thus, the utility of global attachment measures in predicting attachments within specific relationships is questionable.

The review highlights some evidence suggestive of the importance of client-therapist matching, which relates to Bowlby's (1988) hypothesis that therapists with different attachment styles to their clients may have an advantage of challenging and reshaping the clients' habitual pattern of interaction. The unexpected finding is that

sometimes the most effective match does not involve a more securely-attached therapist. For example, in one study, clients with a more preoccupied attachment style appeared to benefit more from therapists with a more dismissing attachment style (Petrowski et al., 2011). It is also important to note that a number of therapist-client attachment combinations showed a significant effect. Further research may reveal more detail in this complex network of complementary or unhelpful client and therapist combinations. Existing evidence suggests that therapist attachment style is of increased importance for clients who have certain types of disturbed attachment, for example a more dismissing/avoidant client may do best with a less dismissing/avoidant therapist, and a more preoccupied or disorganised client may do best with a more dismissing/avoidant therapist (Marmarosh et al., 2014; Petrowski et al., 2011). This evidence supports the relational view that therapists inevitably become involved in enactments or problematic interpersonal patterns in the client's life (e.g. Safran & Muran, 2000).

Implications for Clinical Practice

Considering the nature of available evidence regarding therapist attachment styles and introject, the findings of the current review suggest that clinicians and their supervisors bring to awareness their internalised relational models and those of their clients. The process of recognising, reflecting on and extricating from interpersonal patterns is seen as an important part of the work of therapy by relational theorists (Safran & Muran, 2000). Therapists might also wish to bear in mind the findings reviewed above: that therapist anxious attachment may lead to a more positive initial therapeutic relationship which decreases over time, particularly with more interpersonally distressed clients (Dinger et al., 2009; Sauer et al., 2003); that insecurely-attached therapists may

experience more problems in the therapy (e.g. Black et al., 2005) and weaker alliances (Dinger et al., 2009; Berry et al., 2008; Dunkle & Friedlander, 1996); that the combination of attachment styles is important, with opposing styles working more effectively together (Tyrrell et al., 1999); that dismissing therapists may provide a more helpful emotional climate for preoccupied or disorganised attachment clients (Petrowski et al., 2011); that levels of clients' interpersonal distress may affect the association between therapist attachment and alliance (Schauenburg et al., 2010); and that therapists with self-hostile introjects tended to show more hostility towards their clients (Henry et al., 1990). Interestingly, Nissen-Lie and colleagues have found a link between positive introject (a high degree of therapist self-affiliation as measured by SASB) and positive outcomes (Nissen-Lie et al., 2015). This further supports the relevance of the therapist's relationship with themselves to their functioning in the therapy room.

At present, evidence is not sufficiently developed to support recommendations relating to selection or training of therapists with insecure attachment styles. However, evidence suggesting that negative therapist introject may be harmful in terms of the therapeutic relationship indicates that therapists and their supervisors might be advised to attend actively to issues of therapist self-criticism and self-compassion (Holmqvist & Armelius, 2000; Henry et al., 1990) and indicate that clinicians might do well to seek ways of softening self-punitive introjects.

Implications for Future Research

This review found that proxies for therapeutic relationship factors have yielded broadly similar results to alliance measures; this suggests that alliance measures are measuring a broad range of factors. Similarly, the same may be said for attachment and

introject. In order to progress in this field, researchers must seek to avoid small sample sizes and it is suggested that only well-validated measures of attachment, introject and the therapeutic relationship, for example, SASB, AAI, RSQ or ESQ and the client-rated version of the WAI are used, in order to ensure construct validity. It should also be recognised that the AAI, regarded as the 'gold standard' for assessing attachment, may measure slightly different constructs to the most recent self-report instruments which identify two dimensions of attachment (Roisman et al., 2007). SASB is highly recommended as a research tool in this area, although the labour-intensive administration may unfortunately limit its use. Regarding sampling, future researchers should seek to randomly recruit participants from more widely representative samples, and control for therapist and client variables. It is also recommended that hierarchical models of analysis are used to understand the contribution of therapist level predictors to the alliance and outcome to make a more rigorous contribution to therapist effects' literature. There are risks of over-estimated associations due to shared method variance in studies that use therapist-rated measures of attachment/introject and relational measures (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Therefore, future research should be aware of such risks and investigate different methods of measuring different variables. Black and colleagues (2005) suggested that qualitative studies would provide useful data on the interaction between client and therapist internalised relational models, in particular by drawing out the factors that are important in forming relationships from both perspectives.

The findings of this review are inevitably limited by a number of factors. The paucity of literature on introject and lack of other ways of measuring therapist internal

relational models has been a shortcoming. Despite evidence showing that the therapeutic relationship varies over time, longitudinal designs were rare among the reviewed literature which meant that our understanding of the development of the therapeutic relationship over time is still unformed. The use of non-direct measures of the therapeutic relationship yielded much of interest although the diversity of methodology produced material which is at best suggestive. Similarly, the diversity of measures and analysis within the literature as a whole precluded a meta-analysis at this stage, with effect sizes frequently not reported.

In conclusion, evidence that client-therapist interactions affect the therapeutic relationship strongly suggests that clients' internalised relational models must be considered as well as those of therapists in future research. This review has shown that the unconscious predispositions of therapists to form certain styles of relationships with themselves and others is highly relevant to their role in the therapeutic relationship.

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Figure 1: Flow of information through the systematic review

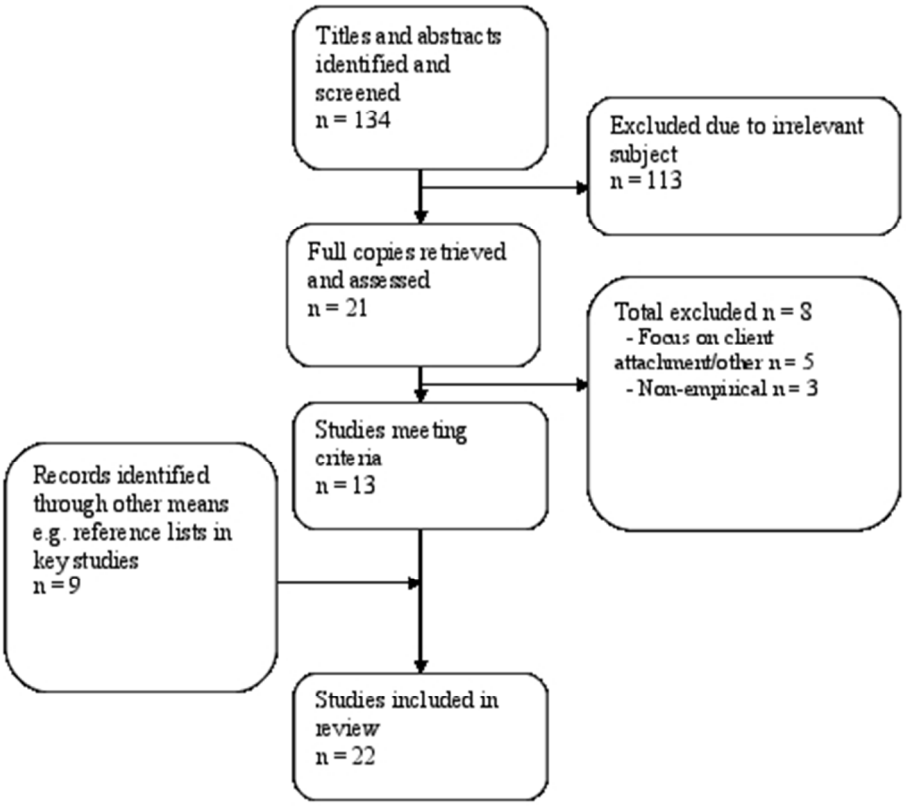

Figure 1: Flow of information through the systematic review

159x164mm (72 x 72 DPI)

Table 1: Studies examining therapist attachment style on direct measures of therapeutic relationship

Study	Therapists	Clients	Intervention / context	Attach-ment measure	Therapeutic relationship measure	Method	Analysis	Relevant Outcomes and Effect Size*	Study Design	Quality analysis (qualitative categories: strong medium weak)
Berry et al., 2008	N = 20 Support workers; Nurses. Age n.s. Ethnicity n.s.	N = 26 Diagnoses of schizophrenia / schizoaffective disorder. Mean age=49, SD=14.9. Ethnicity n.s.	TAU Relationship minimum 3 months' duration	Author's own measure from Brennan et al., 1998	FMFF **RR**	Staff speech samples were FMFF coded	Independent samples T-Test	• Staff in relationships which patients rated 'positive' (n = 6) had significantly lower attachment anxiety than those rated as neutral (n=14); t(18)=-2.06, p=0.05.	Experiment-al	**Weak:** small sample size, use of weak measures and less rigorous data analysis impaired the quality of this study.
Black et al., 2005	N = 491 Chartered Psychologists; Social workers; Psychiatrists; nurses	N/A	TAU Various	ASQ **TR**	ARM **TR** PCL **TR**	Postal survey	Bivariate correlational analyses; Multiple Regression	• Securely attached therapists reported stronger alliances; medium to large effect size (r=441). • Therapists reporting higher levels of insecure attachment reported weaker alliances; small to medium effect size (r= 0.182 to 0.315).	Naturalistic cross-sectional design	**Medium:** good sample size and composition, strong measures, study design and data analysis. Quality reduced by therapist only use of measure.
Bruck et al., 2006	N = 46 Psychologists; psychiatrists; social workers. Mean age=n.s. Ethnicity n.s.	N = 46 Non-severe outpatient population. Mean age=39.4, ethnicity n.s.	30 sessions manualised CBT or short term dynamic therapy	RSQ **TR & CR**	WAI short form **TR & CR**	WAI completed after each session	Bivariate correlational analyses	• Securely attached therapists reported stronger alliances. Medium effect size (r= 0.34). No effect with **CR** alliance). • No effects for other types of therapist attachment style.	Naturalistic cross-sectional design	**Medium:** reasonable sample size and composition, strong measures compensate for less rigorous data analysis.
Bucci et al., 2015	N = 30 Psychologists; positive well-being practitioners;	N = 30 Primary care non-severe population	TAU Various	RQ **TR & CR**	WAI **TR & CR**	Therapists and clients completed measures after 3rd session	Bivariate correlational analyses	• No main effect of therapist and client attachment security on alliance. • Therapist insecure attachment correlated to lower client-rated alliance in more symptomatic clients. Large effect size (r= -0.63). • More preoccupied therapists rated alliance as worse with more symptomatic clients. Large effect size (r= -0.80).	Naturalistic cross-sectional corr-elational	**Medium:** reasonable sample size and composition, strong measures compensate for less rigorous data analysis.

								• More dismissing therapists rated alliance as improved with more symptomatic clients. Large effect size (r= 0.75) • Greater preoccupied attachment disparity between client and therapist results in higher therapist-rated alliance (r= 0.43). Greater disparity within dyads of dismissing attachment lead to better alliance **CR** (r=. 0.41).		
Dinger et al., 2009 (sample from Schauenburg et al., 2010)	N = 12 Psychothera-pists including psychologists; medics; 50% in training; Mostly psychodynamic. Mean age=35.7, SD n.s. Ethnicity n.s.	N = 281 Severe acute inpatient population, Mean age=32.8, SD=11.93. Ethnicity n.s	TAU 1-2 sessions p/w; group therapy 1 x p/w; Mean: 12 sessions (SD 2.97)	AAI **RR** Interpreted using Waters Treboux, Fyffe, Crowell and Corcoran, 2005	IES **CR**	Clients completed IES weekly Therapists completed AAI	Multilevel regression models	• Therapist attachment preoccupation negatively predicted alliance quality; (coefficient .09, t=3.51, p <.01). Small effect size.** • Interaction: therapists with lower attachment preoccupation had better alliances with more interpersonally challenged clients (coefficient 0.1, t=4.54, p<.01). Small effect size.**	Naturalistic longitudinal design	**Medium:** small therapist sample offset by larger client sample; very strong measure of attachment although weaker measure of thera-peutic relation-ship; strong data analysis and study design.
Dunkle & Friedlander, 1996	N = 73 Therapists of varied training and orientation; Mean 8.99 years' experience; mean age=n.s.	N = 73, Non-severe outpatient population; Mean age =26.55, SD=8.17, 87.7%=white, 8.2%=African American.	TAU University counselling centres: Duration/ length unspecified	AAS **TR**	WAI short form **CR**	Postal survey Clients rated alliance between session 3 & 5	Simultaneous multiple regression	• Therapists with less negative introject, more social support, and greater comfort with AAS dimension 'closeness' (Beta=.38), more likely to have positively client-rated bond. This model accounted for 32% of variance in 'bond'. • AAS subscale 'Anxiety' + 'depend' was insignificant.	Naturalistic cross-sectional design	**Strong:** good sample size and composition; strong measures, study design and data analysis.
Ligiero & Gelso, 2002	N = 50 Counselling/ clinical psychology trainees Supervisors: N = 46; Yrs exp.: 1-30 (mean 10.3)	N = 50 n.s.	TAU Therapists met clients mean 5.40 times (SD 1.92) Therapists met supervisors at least 4 times	RQ **TR**	WAI short form **TR & SR**	Clients between session 3 and 9 known to supervisor from audiotapes	Bivariate correlational analyses	• Therapist attachment style did not correlate with working alliance.	Naturalistic Cross-sectional design	**Medium:** good sample size but weaker composition; strong measures and study design; less rigorous data analysis.

Marmarosh et al., 2014	N = 46 University based community mental health clinic. Mean age=27.45, SD=5.21, 23= Caucasian, 10=other.	N = 46 Graduate students in training. Mean age=29.81, SD=8.50, 28=Caucasian, 3 Asian, American, 8=African American, 5=Latin American, 3=other.	TAU Average no. sessions: 33.65 (SD 31.13) Minimum number sessions:5	ECR-S **CR & TR**	WAI-S **CR & TR**	Therapists and clients completed ECR-S, then WAI-S between session 3 and 5.	Actor-Partner Independence Model analysis conducted on dyads after Kenny & Cook, (1999)	• No main effect of attachment anxiety or avoidance on clients. • Interaction: higher alliance with anxiously attached therapists with decreasingly anxiously attached clients; less anxiously attached therapists with increasingly anxious clients. (unstandardised coefficient = - 3.86, Beta = -.46, t=-3.09). Large effect size.**	Naturalistic cross-sectional design	**Strong:** good sample size and reasonable composition; strong measures and study design; strong data analysis.
Petrowski et al., 2011	N = 19 Medics and psychologists psychotherapeutically trained; Single hospital sample; mean age=40,SD=9.97. Ethnicity n.s.	N = 59 Mean age =34, SD=12; clients with anxiety (Axis 1 disorder) General symptomatic impairment quite high. Ethnicity not stated.	TAU Average treatment duration 69 days (SD 19)	AAI Interpreted using Waters et al, 2005 **RR**	HAQ **CR & TR**	Therapists and clients completed AAI pre treatment and HAQ post treatment	Regression after Tyrrell et al., (1999)	• Neither therapist nor client attachment style predicted alliance. • Secure therapists did not have stronger alliances with clients. • Interaction: more insecurely attached clients rated alliance higher with dismissing therapists than preoccupying therapists, accounting for 25% of variance in HAQ relationship (Beta = 0.93) satisfaction and 34% of variance in HAQ outcome (Beta = -1.02) satisfaction. • More preoccupied and disorganised clients rated alliances with a dismissing therapist as more helpful (r=-.0.35) medium effect size.	Naturalistic cross-sectional design	**Strong:** small therapist sample size offset by good client sample size/ naturalistic composition; Strong measures including AAI; strong data analysis and study design.
Romano et al., 2008	N = 59 Trainee counsellors, mean age=28, SD=6.43, White=86%, Asian Canadian 7%, Hispanic=5%, Other=2%	N = 59 Volunteer therapists, Mean age =28.97, SD=10.36;White =66%, Asian Canadian=14%; 10%=hispanic, 10%=other.	Short term therapy (15 sessions)	ECR-S **CR & TR**	WAI **CR**	Clients completed WAI after each session.(Data from session 5-9 used)	Hierarchical linear regression	• Neither client or therapist attachment styles predicted the therapeutic relationship as a main effect or in interaction.	Experiment-al longitudinal	**Strong:** good sample size with reasonable composition; good measures, data analysis and study design (including longitudinal aspect).

Sauer, Lopez & Gormley, 2003	N = 13 Therapists in counselling /psychology graduate training; mean age=29.15, SD=7.94; white=77%, 23%=African American.	N = 17 Clients with non-severe presentation (11 terminated before session 7). Mean age=32.75, SD=10.85, White=88%, Asian American=12%.	TAU 50 minute sessions 1 x wk Mostly brief therapy	Adult Attachment Inventory **CR & TR**	WAI **CR & TR**	Client and therapist completed WAI after session 1,4 & 7	Growth modelling using Hierarchical Linear Modelling	• Anxiously attached therapists had positive effect on the alliance at session 1 but negative effect thereafter (coefficient -0.83, r=0.69); Large effect size. • No other client or therapist variables affected working alliance.	Naturalistic longitudinal repeated measures design	**Medium:** weak sample size and composition; Strong measures, study design and data analysis.
Schauenburg et al., 2010	N = 31 Physicians/ psychologists; Psychodynamic; 0.1 to 21.5 years' experience, Mean age=37.42, SD=6.54. Ethnicity n.s.	N = 1381 Severe acute inpatient population. Mean age=34.58, SD=11.30. Ethnicity n.s.	TAU Multimodal intensive inpatient psycho-therapy	AAI Interpreted using Waters et al, 2005 **RR**	HAQ **CR**	Client completed HAQ on last day of therapy	Multilevel regression	• Therapists accounted for 36.9% of the variance in alliance. • No main effects between attachment style and alliance. • Interaction: higher therapist attachment security is associated with better alliances with more interpersonally challenged clients. (coefficient 0.16, t=2.57, p<0.5). Small effect size**	Naturalistic cross sectional design	**Strong:** moderate therapist sample size offset by large client sample size; good measures including AAI; good study design and data analysis.
Tyrrell et al., 1999	N = 21 Clinical case managers, mean age=35; European American=71%, African American=19%, other=10%	N = 52 Serious psychiatric disorders, mean age=41; African American=76% European American=20% other=4%	TAU Supportive psycho-therapy / practical help. Length of relationships M 31 months, (SD 7)	AAI Interpreted using Q-sort dim-ensional scales (Kobak, 1989) **RR**	WAI **CR**	Case managers and clients administer-ed AAI; clients completed WAI.	Hierarchical regressions, bivariate correlations	• Therapist attachment style was not significantly correlated to therapeutic relationship. • Interaction: less deactivating case managers formed stronger alliances with more deactivating clients. (coeffcient = -0.41, R^2 change = .16). • r(25)= 0.53 (large effect size).	Naturalistic cross sectional design	**Strong:** moderate therapist sample size offset by good client sample size and naturalistic context; good measures including AAI; good data analysis.

Wongpakaran & Wongpakaran, 2012	N = 13 Psychiatrists and psychiatric residents; psychodynamic orientation, mean age=36.00, SD=8.70, ethnicity n.s.	N = 121 Outpatients; mean age=38.14, SD=9.37; ethnicity n.s.	TAU Psychiatry outpatient service Session 5 mins – 1 hour	ECR-R – 18 (Brennan et al., 1998; translated into Thai) **TR**	WAI **CR**	Clients completed WAI once. Therapists completed ECR-R-18 once before meeting their clients.	ANOVA MANOVA	• MANOVA revealed no significant difference in WAI score for therapist attachment style. • One-way between groups multivariate analysis revealed no effect of attachment style on WAI.	Naturalistic cross sectional design	**Medium:** poor sample size offset by larger client sample size and naturalistic context; strong measure of therapeutic relationship and study design; weaker measure of attachment and less rigorous data analysis.

Note: **TAU** = Treatment as usual; **TR** = therapist report; **CR** = client report; **SR** = supervisor report; **RR** = researcher report; **NS** = not stated.
Attachment measures: ASQ = Attachment Style Questionnaire (Feeney et al., 1994); RSQ = Relationship Scale Questionnaire (Griffin & Bartholomew, 1994); AAI = Adult Attachment Interview (George et al., 1985); AAS = Adult Attachment Scale (Collins & Read, 1990); RQ = Relationship Questionnaire adapted from Hazan and Shaver (1987); Adult Attachment Inventory (Simpson, 1990); ECR-R-18 = Experience of Close Relationships Questionnaire (Brennan, Clark & Shaver, 1998).
Therapeutic relationship measures: FMFF = Five Minute Speech Sample (Magana et al 1986); ARM = Agnew Relationship Measure (Agnew-Davies et al, 1998); PCL = Therapist Problem Check List (Schroder, pers. comm., 1999); IES = Inpatient Experience Scale (Sammet & Schauenburg, 1999); WAI = Working Alliance Inventory (Horvath and Greenberg, 1989); WAI S = Working Alliance Inventory short form (Tracey & Kokotovic, 1989); HAQ = Helping Alliance Questionnaire (Bassler et al., 1995);
* Effect sizes are reported for correlations as r; for regressions unstandardised coefficients, R^2 or Beta are reported.
** In these cases, effect sizes have been estimated from the context of unstandardised coefficients.

Table 2: Studies examining therapists' attachment style on non-direct measures of the therapeutic relationship

Study	Therapists	Clients	Intervention / context	Attachment measure	Therapeutic relationship measures	Method of testing	Analysis	Relevant Outcomes and Effect Size	Study Design	Overall quality analysis: (qualitative categories: strong medium weak)
Black et al., 2005	N = 491 Chartered Psychologists; Social workers; Psychiatrists; nurses.	N/A	TAU Various	ASQ1 **TR**	ARM **TR** PCL **TR**	Postal questionnaire sent to therapists	Correlational analyses; Multiple Regression	• Therapists reporting insecure attachment styles reported more problems in therapy. The four insecure ASQ dimensions accounted for 7.5% increased variance in reported problems. Beta weights showed that ASQ need for approval was most strongly significant (Beta=4.83, p<0.001). • ASQ dimensions showed small - medium effect sizes: problems in relationship (r=.322, need fro approval (r=.165), discomfort with closeness (r=.252)	Naturalistic cross-sectional design	**Medium:** good sample size/quality, data analysis, study design; adequate measure of therapeutic relationship; quality reduced by therapist only use of measure.
Ligiero & Gelso, 2002	N = 50 Counselling/ clinical psychology trainees. Supervisors: N = 46 Yrs experience: 1-30, mean 10.3	N = 50 n.s.	Therapists had met clients mean 5.4 times (SD 1.92) Trainees met supervisors ≥ 4 times	RQ1 **TR**	ICB **SR** CI **SR**	Therapists were asked if they had clients between session 3 and 9 whom their supervisors knew from audiotapes	Correlational analyses	• Therapist attachment style did not correlate with countertransference (CT) behaviours	Naturalistic cross-sectional design	**Strong:** good sample size/quality, attachment measure; 1 good countertransference measure; good study design; moderate data analysis.
Martin et al., 2007	N = 121 Medic trainees in psychodynamic psychotherapy N = 52 Medics and psychology trainees without psychodynamic training	N/A	Segments from 3 transcripts from the AAI read by one person	RQ2 **TR**	IMI subscales **TR** Countertrans-ference Scale (authors' own) **TR**	Response to transcripts recorded and analysed	ANOVAs	• No significant difference between the CT reactions of listeners with different attachment styles	Design relevant to review: Experiment-al cross-sectional design	**Medium: g**ood sample size and measure quality; moderate quality experimental study design and data analysis.

Mohr et al., 2007	N = 27 Psychology students at US university Supervisors: N = 11 doctoral students; Yrs experience: 3-32	N = 93 Under-graduates not suicidal; not in therapy. Mean age=18.72, SD=1.23. 15=Black 7=Asian American 65=White 4=Hispanic 2=other.	1 session of 30-45 minutes	ECRS **TR & CR**	CBM (developed for study from ICB) **SR**	ECRS completed (client and therapist) pre session Supervisors assessed session using CBM	Random intercept regression	• Therapist attachment associated with CT behaviour; • Dismissing counsellors more likely than others to show hostile CT behaviour: t(24)=3.19, p<0.0125 • Hostile and distancing CT behaviour predicted by client – therapist interaction: t(81)=-2.66, p<0.0125 • Dominant CT not predicted by therapist attachment; • CT dynamics most likely with different client and therapist attachment styles	Experiment-al cross-sectional design	**Medium:** good quality measures and analysis but moderate quality sample and study design.
Petrow-ski et al., 2013	N = 22 15 clinical psychologists 7 physicians all with psychotherapeut ic specialisation: mixed orientation; mean age=41.5, SD=9.44	N = 429 Naturalistic inpatient setting, mean age=36.1, SD=12.4, ethnicity not stated.	Mean duration of treatment =62.5 calendar days	AAI (therapists)	CATS (Mallinckrodt et al., 1995)	Clients completed CATS at end of treatment ; therapists took the AAI before treatment	Hierarchical linear regression	• No main effect of secure/insecure therapist attachment and client attachment to therapist was found • The more preoccupied the therapist's attachment status was, the more the patient experienced a preoccupied-merger attachment to the therapist (coefficient = -0.88) • The more dismissing the therapists attachment status was, the more the patient experienced an avoidant fearful attachment to the therapist.(coefficient = 0.94). • Comparatively large effect size**	Naturalistic cross-sectional design	**Strong:** good sample composition despite small no. of therapists; strong measures including AAI, strong data analysis and study design.
Romano et al., 2008	N = 59 Trainee counsellors, mean age=28, SD=6.43, White=86%, Asian Canadian=7% Hispanic=5%, Other=2%	N = 59 Volunteers, Mean age =28.97, SD=10.36; White =66% Asian Canadian =14% Hispanic =10%, Other=10%	Short term therapy (15 sessions)	ECRS **CR & TR**	CATS (Mallinckrodt et al., 1995) SEQ-D	Clients completed CATS after each session. (Data from session 5-9 used)	Hierarchical linear regression	• High levels of client global attachment anxiety along with high to moderate levels of counsellor global attachment avoidance predicted lower levels of client perceived session depth (unstandardised coefficient = -.72, p = <.01)	Experiment-al longitudinal	**Strong:** good sample size, strong study design with longitudinal aspect, data analysis and measures.

Rubino et al., 2000	N = 77 Trainee clinical psychologists	N/A	4 video vignettes simulating alliance ruptures	RSQ **TR**	RES **RR**	Analysis of therapists' responses to vignettes	Attachment dimensions were factor analysed; Repeated measures ANOVAs	• More anxiously attached therapists responded less empathically than less anxious colleagues (F(1,72)=4.04,p=.048): this implies a large effect size. • No main effect with attachment avoidance; • Interaction effect: more anxious therapists less empathic towards secure or fearful clients; • No effects found for dismissing/ preoccupied patients.	Experimental cross-sectional design	**Medium:** good sample size although non diverse, moderate study design and data analysis, weak measure used to measure empathy.
Wise-man & Tishby, 2014	N = 27 Clinical psychologist / social work; 63% trainees; mean age=36, SD=n.s., ethnicity n.s.	N = 67 University attendees; mean age=24.89, SD n.s.; ethnicity n.s.	TAU University counselling centre	ECRS **TR**	CATS (Mallinckrodt et al., 1995)	Clients completed CATS at session 5,15,29.	Mixed model analysis	• No main effects found; • Significant interaction between more anxiously attached therapist (using ECRS) and less securely attached clients at session 5: Beta=-.23, SE=.11; t(23.09)= -2.06, p=.050) • No other significant interactions.	Naturalistic longitudinal	**Strong:** moderate quality sample size and diversity, good quality measures, study design including longitudinal aspect and data analysis.

Note: **TAU** = Treatment as usual; **TR** = therapist report; **CR** = client report; **SR** = supervisor report; **RR** = researcher report; n.s. = not stated.
Attachment measures: ASQ = Attachment Style Questionnaire (Feeney et al., 1994); RQ1 = Relationship Questionnaire adapted from Hazan and Shaver (1987); RQ2 = a relationship questionnaire adapted from Grau (1999); ECRS = Experiences in Close Relationships Scale (Brennan, Clark & Shaver, 1998); AAI = Adult Attachment Interview (George et al., 1985)
Therapeutic relationship measures: ICB = Inventory of Countertransference Behaviour (Friedman & Gelso, 2000); CI = Countertransference Index (Hayes, Riker, & Ingram, 1997); IMI = Impact Message Inventory subscales (Fingerle, 1998); Countertransference Behaviour Measure (CBM; Mohr et al., 2007); ARM = Agnew Relationship Measure (Agnew-Davies et al, 1998); PCL = Therapist Problem Check List (Schroder, pers. comm., 1999); RES = Response Empathy Scale derived from Goodman (1972); CATS = Client Attachment to Therapist Scale (Mallinckrodt et al., 1995); SEQ – D = Session Evaluation Questionnaire – Depth (Stiles and Snow, 1984).
* Effect sizes are reported for correlations as r; for regressions unstandardised coefficients, R^2 or Beta are reported.
** In these cases, effect sizes have been estimated from the context of unstandardised coefficients.

Table 3: Studies examining therapist introject style on direct measures of therapeutic relationship

Study	Therapists	Clients	Intervention/ context	Introject measure	Therapeutic relationship measure	Method	Analysis	Relevant Outcomes and Effect Size	Study Design	Quality analysis (qualitative categories: strong medium weak)
Bruck et al., 2006	N = 46 Psychologists; psychiatrists; social workers; mean age n.s.; age range 27-59; ethnicity n.s.	N = 46 Non-severe outpatient population; mean age=39.4, SD n.s.; ethnicity n.s.	30 sessions manualised CBT or short term dynamic therapy	INTREX Introject Questionnaire **TR & CR**	WAI short form **TR** & **CR**	WAI completed after each session	Bivariate correlational analyses	• No significant effects of therapist introject in the therapeutic alliance, either **TR** or **CR**.	Naturalistic cross-sectional design	**Medium:** reasonable sample size and composition; good measures and study design; less rigorous data analysis.
Dunkle & Friedlander, 1996	N = 73 Therapists of varied training and orientation; mean age=34.56, SD=8.97; 83.6%=white, 8.2%=African American, 4.1%=Asian American, 2.7%=Hispanic,1.4% =n.s.	N = 73, Non-severe outpatient population; mean age=26.55, SD=8.17; 87.8%=white, 8.2%=African American, 2.7%=Native American, 1.4%=n.s.; mixed presentations.	TAU University counselling centres Duration/ length unspecified	INTREX Introject Questionnaire **TR**	WAI short form **CR**	Postal survey Clients rated alliance between session 3 & 5	Simultaneous multiple regression	• Clients of therapists with self-attacking introject rated the 'bond' variable score of the WAI significantly less favourably. (Beta=-.45, t(72) = -3.12, p<0.001). R^2 of the full model was .26, meaning that it explained 26% of variability in the WAI.	Naturalistic cross-sectional design	**Strong:** strong sample size and composition; good measures; good study design and data analysis.
Hersoug et al., 2001	N = 59 39 Clinical Psychologists, 13 Psychiatrists, 4 social workers 3 nurses. Psychodynamic; mean age=43.6, SD=6.05; ethnicity n.s.	N = 270 Non-severe outpatient population; mean age=33.70, SD=8.84; ethnicity n.s.	TAU Outpatient clinics Norway 6/7 sites open-ended therapy 1/7 sites 40 session limit	INTREX Introject Questionnaire **TR**	WAI short form **TR** & **CR**	WAI completed after session 3, 12, 20 then after every 20	Linear Mixed Modelling	• High self-attacking therapist introject related to better patient-rated alliance, however, this is a weak result as there were only 2 therapists with self-attacking introjects.; • Introject (self-attack) related to worse therapist-rated alliance (early and later) in univariate analysis : r= -0.22; r=-0.20) but not in multivariate. Small effect sizes.	Naturalistic longitudinal	**Strong:** good sample size and composition; Good measures; Strong study design (including longitudinal aspect); good data analysis.

Note: **TR** = therapist report; **CR** = client report; **TAU** = treatment as usual, n.s. not stated.
Introject measure: INTREX Introject Questionnaire (Benjamin, 1982, 1983); Therapeutic relationship measure: WAI = Working Alliance Inventory (Tracey & Kokotovic, 1989)

Table 4: Studies examining therapist introject style on non-direct measures of therapeutic relationship

Study	Therapists	Clients	Intervention/ context	Introject measure	Therapeutic relationship measures	Method of testing	Analysis	Relevant Outcomes and Effect Sizes*	Study Design	Quality analysis (qualitative categories: strong medium weak)
Henry at al., 1990	N = 14 Psychodynamic psychiatrists; clinical psychologists; minimum 2 years' experience; white=100%	N = 14 General adult psychiatric population with interpersonal difficulties; mean age=41.04, SD n.s.; age range=24-64; 100%=white.	50 minute meeting 1 x p/w minimum 25 weeks	SASB self-report (introject) **TR**	Videotapes were SASB process-coded **RR**	Self-report questionnaire Videotaped session coded by two clinical psychologists blind to outcome group	Non-parametric test (Mann Whitney U P< .05)	• Therapists whose introject was rated as friendly at worst only had hostile codes in 5.6% of coded units, compared with therapists whose introject was rated as hostile at worst whose interactions were rated as hostile in 17.7% of coded units; • Therapists who had more hostile introject pre-therapy were significantly more likely to be coded as treating their patients in a disaffiliative manner.	Between-subjects experimental design	**Strong:** small sample size necessitated by intensive coding of SASB system and by product of 'extreme groups' analysis; high quality measures; basic but appropriate statistical analysis; good study design
Holmqvist & Armelius, 2000	N = 163 Nurses; psychiatric aides; social workers; psychologists (considerable attrition); mean age=38.7, SD=n.s. ethnicity n.s.	N = 142 Severely disturbed but suitable for treatment aimed at higher mental capacity; mean age=28.8, SD=n.s.; ethnicity n.s.	TAU Care homes over 5 year period	SASB self-report (introject, father-image and mother-image) **TR**	FC **TR**	Staff completed feeling-word checklists about each patient twice a year over 5 years SASB collected at end of year 1	Correlation; Multiple Regression	• 12% of variance in staff feelings was accounted for by self-image as measured by SASB. Higher for female staff (15%) and much higher for male (27%); • Male staff: "controlled and unhelpful feelings correlated most strongly with self-image (R^2=.53; R^2 = .42) and helpful autonomous accepting feelings the least"; • Female staff: "autonomous feelings were associated most strongly with self-image (R^2=.28) and unhelpful and controlled and unhelpful feelings the least" (R^2=.10; R^2 = .09).	Naturalistic Longitudinal design	**Strong:** good sample size and composition; strong study design and data analysis. High quality measure of introject; moderate quality measure of therapeutic relationship.

Note: **TAU** = Treatment as usual; **TR** = therapist report; **CR** = client report; **SR** = supervisor report; **RR** = researcher report; n.s.= not stated.
Measures of Introject: SASB = Structural Analysis of Social Behaviour (Benjamin, 1974).
Measures of therapeutic relationship: SASB process-coding (Henry et al., 1986); FC = Feeling Checklist (Holmqvist & Armelius, 1994)
* for correlations effect sizes reported as r, and for other more complex analyses, e.g. regressions, relevant results are reported.

Table 5: Attachment/ Introject Measure quality

Measure	Format	Quality	Used by
Adult Attachment Interview (AAI; George et al., 1996).	Interview conducted by trained administrator. Responses are analysed with coding system. Alternative coding systems in use[1]	**Strong:** strong construct validity. Does not rely on self-report.	Tyrrell and colleagues 1999; Dinger et al., 2009; Schauenburg et al., 2010; Petrowski et al., 2011
Adult Attachment Inventory (Simpson, 1990; Simpson, Rholes, & Nelligan, 1992).	self-report questionnaire 13-item	**Medium:** moderate internal consistency	Sauer et al. 2003
Attachment Style Questionnaire (ASQ; Feeney, Noller & Hanrahan,1994)	self-report questionnaire	**Strong:** validated measure with sufficient internal consistency and construct validity	Black et al. 2005
Adult Attachment Scale (Collins & Read, 1990)	self-report questionnaire	**Strong:** validated measure with sufficient internal consistency and construct validity	Dunkle & Friedlander 1996
Berry and colleagues (2008)	self-report questionnaire	**Weak:** Not validated for clinical samples; moderate internal consistency.	Berry et al. 2008
Experiences in Close Relationships (Brennan, Clark & Shaver, 1998)	self-report questionnaire	**Strong:** validated measure with sufficient internal consistency and construct validity	Romano et al. 2008; Marmarosh et al. 2014
Experiences in Close Relationships (Brennan, Clark & Shaver, 1998) Thai translation	self-report questionnaire	**Medium:** based on validated measure with sufficient internal consistency and construct validity. Translation reduces quality assessment as unknown how Thai version alters internal consistency and construct validity.	Wongpakaran & Wongpakaran, 2012
INTREX Introject Questionnaire (Benjamin, 1982, 1983)	self-report questionnaire 16-item derived from circumplex model	**Strong:** Good construct validity and internal consistency.	Bruck et al., 2006; Dunkle & Friedlander, 1996; Hersoug et al., 2001
Relationship Questionnaire (RQ) adapted from the attachment questionnaire developed by Hazan & Shaver (1987)	self-report questionnaire	**Strong:** validated measure with sufficient internal consistency and construct validity	Ligiero & Gelso 2002
Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994)	self-report questionnaire	**Strong:** validated measure with sufficient internal consistency and construct validity	Bruck et al. 2006
The Grau Attachment Questionnaire (Grau, Clashausen & Höger, 2003).	self-report questionnaire	**Strong:** Strong internal consistency (.92) and convergent validity with the ECRS	Martin et al. 2007

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a) Kobak, (1989) generates 2 continuous dimensions: deactivating/hyperactivating and autonomous/non-autonomous, focused on state of mind rather than experience.
b) Waters et al. (2005) generates 2 continuous dimensions: insecure/secure attachment and preoccupied/dismissive attachment.

Table 6a: Quality of direct Therapeutic Relationship Measures

Measure	Format	Quality	Used by
Agnew Relationship Measure (ARM; Agnew-Davies, Stiles, Hardy, Barkham, & Shapiro, 1998)	Therapist-rated questionnaire 28-item	**Strong**: good convergent validity with the WAI (Stiles et al., 2002).	Black et al., 2005
Five-Minute-Speech-Sample (FMSS; Magana et al., 1986)	Transcript of the clinician talking about their thoughts and feelings towards a client is coded by two raters.	**Strong:** good interrater reliability; good convergent validity with the validated Camberwell Family Interview (e.g. Magana et al., 1986)	Berry et al., 2008
Helping Alliance Questionnaire (HAQ; Bassler, Potratz & Krauthauser, 1995)	Self-rated questionnaire 12-item	**Strong:** good internal consistency (alpha = .89); reasonable construct validity with other established measures of alliance (e.g. Hatcher & Barends, 1996).	Schauenburg et al., 2010; Petrowski et al., 2011
Inpatient Experience Scale (Sammet & Schauenburg, 1999).	Client-rated questionnaire 38 items forming 7 scales	**Weak:** good to strong internal consistency; non-validated	Dinger et al., 2009
Working Alliance Inventory Short form (WAI-S; Tracey & Kokotovic, 1989)	Various modes of completion used: • client-rated • therapist and client rated • therapist and supervisor rated 12-item form	**Strong:** good internal consistency (alpha = .90 to .92) (Tracey & Kokotovic, 1989).	Bruck et al., 2006; Dunkle & Friedlander, 1996; Ligiéro & Gelso, 2002; Marmarosh et al., 2014; Romano et al., 2008; Wongpakaran & Wongpakaran, 2012
Working Alliance Inventory (WAI; Horvath and Greenberg, 1989)	Client-rated questionnaire	**Strong:** reliable and valid with good internal consistency (Agnew-Davis et al., 1998). Widely used.	Tyrrell et al., 1999; Sauer et al., 2003

Table 6b: Quality of non-direct Therapeutic Relationship Measures

Measure	Format	Quality	Used by
Client Attachment to Therapist Scale (CATS; Mallinkrodt et al., 1995)	Client-rated questionnaire 36 items rated on 6-point scale	**Strong:** has good internal consistency and correlates well with measures of adult attachment, working alliance and object relations.	Romano et al., 2008; Petrowski et al., 2013; Wiseman & Tishby, 2014
Countertransference Behaviour Measure (CBM; Mohr et al., 2007)	Supervisor-rated questionnaire 10 items (drawn from ICB) rate on 5-point scale	**Strong:** A shortened version of the ICB. The measure showed reasonable internal consistency with alpha coefficients of .81 and .74 (Ligiéro & Gelso, 2002). Items were chosen on basis of factor analysis.	Mohr et al., 2007
Countertransference Index (CI; Hayes, Riker & Ingram, 1997)	Supervisor-rated questionnaire 1 item measure rated on 5-point scale	**Weak:**.New non-validated measure, although showed significant correlation with both subscales of the ICB.	Ligiero & Gelso, 2002
Countertransference Scale (CS; Martin et al., 2007).	Therapist-rated questionnaire 23 item	**Weak:** non-validated; reasonable internal consistency.	Martin et al., 2007
Feeling Checklist (FC; Holmqvist & Armelius, 1994)	Self-report questionnaire 8 subscales over 2 dimensions: positive/negative and intense/less intense.	**Weak:** some subscales had poor internal consistency including alphas of .13 (Distance).	Holmqvist & Armelius, 2000
Impact Message Inventory subscales (IMI; Fingerle, 1998; Kiesler et al., 1976)	Self-report questionnaire 64 items resulting in 8 subscales rated on 4-point scale. 2/8 subscales were used.	**Strong:** Good internal consistency and validity	Martin et al., 2007
Inventory of Countertransference Behaviour (ICB;Friedman & Gelso, 2000)	Supervisor-rated questionnaire 32 item rated on 5-point scale	**Strong:** reasonable internal consistency and good convergent validity with the validated Countertransference Index (Hayes, Riker, & Ingram, 1997).	Ligiero & Gelso, 2002
Response Empathy Scale (RES; Goodman, 1972)	Self-report questionnaire 5-point scale	**Weak:** a measure of empathy in therapist reactions to the video vignettes. It has reasonable internal consistency but is not validated.	Rubino et al., 2000
Session Evaluation Questionnaire – Depth (SEQ-D; Stiles & Snow, 1984)	Therapist-rated questionnaire 5 items rated on a 7-point scale.	**Strong:** good internal consistency and convergent validity therapy outcomes/premature termination	Romano et al., 2008; Mohr et al., 2007
Therapist Problem Check List (PCL; Schroder, pers. Comm., 1999)	Therapist-rated questionnaire 7 items rated on 6-point scale	**Medium:** reasonable internal consistency (alpha of .79) and face validity although uncertain construct validity.	Black et al., 2005
Structural Analysis of Social Behaviour process-coding (Henry et al., 1986)	2 clinical psychologists blinded to outcome group process codes session transcripts using the SASB to examine the nature of in-session transactions,	**Strong:** this method which provides a detailed analysis of process issues from an impartial perspective, rather than relying on the therapist perspective. Good internal consistency. Validated.	Henry at al., 1990; Holmqvist & Armelius, 2000

Table 7: Synthesis of results

Area	Finding	Number of studies
Therapists' attachment style affects direct measures of the therapeutic relationship	As main effect In interaction only No effect	6/14 5/14 3/14
Therapists' attachment style affects non-direct measures of the therapeutic relationship	As main effect In interaction only No effect	3/8 3/8 2/8
Therapists' introject affects direct measures of therapeutic relationship	As main effect No effect	2/3 1/3
Therapists' introject affects non-direct measures of therapeutic relationship	As main effect No effect	2/2 0/2
Therapists' internalised relational models impact upon the therapeutic relationship,	As main effect or in interaction	18/22