

Running head: THERAPIST FACTORS, ALLIANCE AND PERSONALITY DISORDER

Therapist Attachment, Emotion Regulation and Working Alliance within
Psychotherapy for Personality Disorder

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Abstract

Personality disorder is characterised by intense emotional experiences, unstable patterns of relating to self and others, and risky behaviour. Alliance ruptures and premature drop-out is common within psychotherapy for personality disorder, which frequently limits the effectiveness of treatment. Research has shown that some clinicians are better able to facilitate the development of a therapeutic alliance than others. However, there is a clear lack of research exploring therapist factors which influence the alliance.

The present study examined the relationship between therapist attachment style, therapist emotion regulation and working alliance within psychotherapy for personality disorder. Psychological therapists ($N = 44$) were recruited from specialist personality disorder services and a personality disorder conference. Participants were asked to complete three questionnaire measures of their personal attachment style (on the dimensions of attachment anxiety and attachment avoidance), their emotion regulation capacity, and their alliance with one of their clients with a primary diagnosis of personality disorder.

Results showed that neither therapist attachment anxiety nor attachment avoidance were significant predictors of working alliance. However, therapist emotion regulation was a significant predictor of working alliance, explaining 13.2% of the variance in alliance scores. As hypothesised, higher levels of emotional dysregulation were associated with poorer working alliance.

The findings are discussed in relation to relevant theory, previous research and models of psychotherapy for personality disorder. Since the current study is the first

to investigate these therapist factors within psychotherapy for personality disorder, directions for further research and potential clinical implications are discussed.

Chapter 1: Introduction

1.1 Rationale and Outline of Chapter

This study investigates the relationship between therapist attachment style, therapist emotional regulation and working alliance within psychotherapy for personality disorder. Initially, the key clinical features of personality disorder will be described along with current service provision and dominant models of psychotherapy. Common factors in these psychological interventions will be described and it will be argued that the preservation of the working alliance in the face of therapeutic ruptures is crucial to outcome. The sources of potential rupture will then be outlined including the interpersonal difficulties experienced by this client group and their propensity to engage in impulsive, aggressive or self-destructive behaviours. The chapter will describe how the current research literature and treatment manuals for personality disorder have focused on client factors which contribute to therapeutic rupture, dropout or outcome, and will argue that the contribution of therapist factors has been neglected. Two factors in particular will be explored: therapist attachment and therapists' abilities to regulate their emotions. A systematic literature review about the contribution of these therapist factors to the therapy process with a number of other client groups will be described as there is no specific literature on these therapist factors in relation to the treatment of clients with personality disorder. The rationale and research questions for this thesis will then be presented to conclude the chapter.

1.2 Psychotherapy for Personality Disorder

1.2.1 Definition and diagnosis.

Personality disorder is characterised by intense emotional experiences, unstable patterns of relating to self and others, and risky behaviour (Diagnostic and Statistical Manual of Mental Disorders, DSM-IV; American Psychiatric Association, 1994). According to DSM-IV, these are enduring patterns affecting cognition, emotion and behaviour, causing distress and impairment to the individual and their social functioning. In the current edition of the DSM there are ten categories of personality disorder and the diagnosis is given to individuals who meet a specified number of criteria. However, the reliability of these diagnostic categories have been questioned (Alwin et al., 2006), as individuals diagnosed with personality disorder tend to meet criteria for multiple categories, indicating that they are not independent (Stuart et al., 1998). Furthermore, research has demonstrated poor reliability of diagnostic categories, particularly when different assessment methods are used (Perry, 1992). Criticism has also focused on the term being used in a derogatory manner, labelling someone as difficult to treat or excluding them from receiving treatment (Alwin et al., 2006). It has been argued that the personality traits comprising these diagnostic categories exist on a continuum, throughout the clinical and non-clinical population, and so many favour a dimensional model of personality disorder (Alwin et al., 2006).

The new eleventh edition of the International Classification of Diseases (ICD), due to be published in 2015, will present a new classification system for personality disorder. It is likely that there will be one single dimension of personality disorder, existing on a continuum of severity from 'personality difficulties' to mild, moderate and severe personality disorder (Tyrer, 2013). It has been argued that the

new system will enable clinicians to make personality disorder diagnoses for clients with less severe symptoms, resulting in the diagnosis being used more frequently, which may decrease the stigma associated with the disorder (Tyrer, 2013). The new DSM-V is also due to make changes to their personality disorder classification system (Skodol & Bender, 2009). The current proposals involve a classification system which has an overall rating of personality functioning ranging in severity, descriptions of personality disorder types, a personality trait assessment, generic criteria such as a lack of self-integration and assessment of adaptive functioning.

1.2.2 Service and clinical context.

Recent prevalence rates indicate that 14.5% of the adult population (Fok et al., 2013) and 40-50% of those admitted for treatment at psychiatric hospitals meet the criteria for personality disorder (Alwin et al., 2006). Although the use of services by individuals with a diagnosis of personality disorder is likely to be variable, the cost of treating this client group is likely to be high, due to the high levels of distress and impairment experienced. In 2010 the cost of personality disorder in the United Kingdom was estimated to be 4918 million euros, the sixth most costly disorder of the brain (Fineberg et al., 2013). Individuals with a diagnosis of personality disorder have higher mean total healthcare costs (Rendu, Moran, Patel, Knapp & Mann, 2002), poorer general health and are less likely to be working than those without this diagnosis (Fok et al., 2013).

The personality disorder client group is viewed as complex and difficult to treat as up to half of those referred to services drop-out during treatment (Crawford et al., 2009) and those who drop out are likely to have negative prognoses (McMurran, Huband, & Overton, 2010). Concerns have previously been raised regarding the quality of mental health services for this client group (Crawford,

2008). In 2003, a survey reported that approximately one third of Mental Health Trusts in England were not providing an appropriate service to people with a personality disorder (NIMHE, 2003). Service-users reported feeling dissatisfied with services and excluded from treatment options due to their diagnosis (NIMHE, 2003). The Department of Health responded to these concerns by funding training initiatives and a number of specialist services (NIMH, 2003). Although the specialist personality disorder services have reported lower drop-out rates than previous estimations, engagement difficulties remain a central issue as 23% of service users still dropped-out of these services (Crawford et al., 2009).

The second phase of the national personality disorder programme is currently underway, with the focus on developing services in line with what has been learnt from the pilot site projects and providing training in working effectively with the personality disorder client group (Department of Health, 2009). The programme aims to provide input to services from tier one primary care services to tier six high security services, in order to expand provision for this client group (Department of Health, 2009). The Social Exclusion Action Plan has also resulted in the development of a number of new pilot services established to work with young people at risk of developing personality disorder (Cabinet Office, 2006).

1.2.3 Dominant models of psychotherapy.

A number of therapies for personality disorder have been developed which draw upon different psychological theories of psychopathology. Some of the key treatment models will be outlined below, in terms of the key elements of formulation and intervention. Most of these psychological interventions have been developed specifically for Borderline Personality Disorder (BPD), and previous outcome trials have primarily focused on this client group. This is likely to be motivated by

economic factors as clients with BPD are more likely to present to mental health services than those with other diagnoses, often in a state of crisis or requiring hospitalisation (Bateman & Fonagy, 2010).

1.2.3.1 Mentalisation based therapy.

Mentalisation based therapy (MBT; Bateman & Fonagy, 2004) was developed for individuals with a diagnosis of BPD. The mentalisation model of BPD proposes that early disruption to attachment relationships leads to a hypersensitivity of the attachment system and impairments in mentalisation; the capacity to understand human behaviour in terms of mental states (Fonagy & Bateman, 2008). The capacity to understand the thoughts, emotions and intentions of self and others is viewed as a key developmental milestone and major impairments in this area are seen to underlie the unstable interpersonal relationship patterns of BPD. This deficit in mentalising is predicted to be the result of several possible processes; a child's attempt to avoid processing the malevolent actions of others, high levels of early stress causing inhibition of orbito-frontal cortical activity in response to relatively low levels of threat, and early trauma resulting in a search to regain attachment security and a deactivation of mentalising (Fonagy & Bateman, 2008). It is acknowledged that impairment may be due to genetic vulnerability as well as experiencing trauma, abuse or neglect. The treatment model is also informed by attachment theory as it assumes that individuals with BPD have developed a disorganised attachment orientation which is associated with difficulties in affect regulation, attention and impulse control.

MBT, which has now become a manualised intervention, aims to develop an individual's mentalising capacity, particularly when the attachment system is

activated and under conditions of emotional arousal (Bateman & Fonagy, 2004). The development of a close therapeutic relationship is likely to present a major threat to the attachment system, however dynamics within the therapeutic relationship can be explored to promote mentalising within relationships.

1.2.3.2 Dialectical behaviour therapy.

Dialectical Behaviour Therapy (DBT) is based upon a biopsychosocial understanding of BPD (Linehan, 1993). The approach views BPD psychopathology as due to a combination of emotional vulnerability and an early invalidating environment. Individuals with emotional vulnerability experience their feelings as intense and unpredictable, causing great disruption to their lives. Early trauma and genetic or biological factors may underlie this. Linehan (1993) describes the invalidating environment as one where the individual does not receive sufficient support and encouragement.

One of the primary treatment targets in DBT is the reduction of life-threatening behaviours, including self-harm and parasuicide. Throughout therapy, DBT therapists take an open and honest approach with clients so that therapeutic ruptures can be worked through, and ‘therapy-interfering behaviours’ take precedence when these are preventing work continuing on reducing suicidal behaviours. Since the core deficit within Linehan’s (1993) biopsychosocial model is in the ability to regulate emotions, emotion regulation skills are didactically taught in skills groups, and practiced within individual therapy and through telephone consultation. DBT uses mindfulness techniques to promote an accepting and non-judgemental approach to difficult emotional experiences.

1.2.3.3 Cognitive therapies.

Cognitive therapy understands personality disorder psychopathology in relation to holding rigid and inflexible beliefs about self and others, which influence behaviour and cause distress (Alwin et al., 2006). Individuals have often experienced difficult early experiences which cause them to develop interpersonal beliefs characterised by fears of abandonment and distrust of others (Bateman & Fonagy, 2004). Beck and colleagues (Beck & Freeman, 1990) state that treatment focusing on skills training is less effective for those with a diagnosis of personality disorder. The focus is instead on challenging core beliefs and maintaining the working alliance (Bateman & Tyrer, 2004). In cognitive behavioural therapy (CBT), alliance is developed and maintained through emphasising collaboration and working on shared goals (Gilbert & Leahy, 2009). Group-based CBT has been used in forensic settings to address issues such as offending and substance misuse, which may exist alongside diagnoses of antisocial or psychopathic personality disorder (NICE, 2009).

1.2.3.4 Cognitive Analytic Therapy.

Cognitive Analytic Therapy is based on cognitive, psychoanalytic and Vygotskian ideas (Ryle & Kerr, 2002). CAT emphasises the social formation of the mind, and the development of reciprocal roles through early experiences. Reciprocal roles refer to the patterns of interacting with others and the associated emotions and beliefs about the self that develop from early relational experiences. CAT views personality disorder psychopathology to be the reflection of a limited number of maladaptive reciprocal roles, which are poorly integrated and associated with dissociative experiences (Ryle, 1997). The focus of CAT is to develop a shared understanding of relationship patterns in relation to the individual's past and present experiences, and then to recognise and revise unhelpful roles and patterns of

behaviour. Dynamics within the therapeutic relationship are openly discussed in order to inform the formulation and practice new ways of relating (Ryle, 1997).

1.2.3.5 Therapeutic communities.

Therapeutic communities are based on four main principles: democratisation, reality confrontation, community living and permissiveness (Rapoport, 1960). Staff and clients work side by side in all aspects of the community so that unhelpful 'them and us' dynamics are reduced (Alwin et al., 2006). Clients are expected to support and challenge one another through times of crisis and explore personal experiences within the group setting. The group also discusses and seeks to better understand dynamics between different staff or client members. There are currently a number of therapeutic community programmes for personality disorder nationally and internationally, within community, residential and prison settings (Kennard, 2004; Sullivan & Shuker, 2010).

1.2.4 Common factors in treatments.

The National Institute for Health and Clinical Excellence guidelines for BPD (NICE, 2009) and Antisocial Personality Disorder (NICE, 2009) state that a number of psychological therapies such as DBT or CBT may be beneficial. However, the guidelines recognise that research examining treatment for this client group is in its infancy and there is a need for further pragmatic research trials. The most recent Cochrane review of psychological therapies for individuals with BPD stated that due to the lack of data, only studies comparing DBT to treatment as usual could be included in the meta-analysis (Stoffers, Völlm, Rücker, Timmer, Huband, & Lieb, 2012). The review found that DBT was significantly more effective than treatment as usual on four different outcomes, with moderate to large effect sizes. Although studies investigating the effectiveness of other therapies obtained promising results,

the review concluded that there was not enough data to draw firm conclusions. However, critics have debated the quality and reliability of the research used to advocate DBT as an effective intervention (Bateman and Tyrer, 2004). Many of the studies have been uncontrolled, with small numbers of participants, and research has shown DBT to be no better than other interventions (Linehan et al, 2002, as cited in Bateman & Tyrer, 2004).

There are several difficulties associated with conducting and evaluating research in this area. Firstly, it can be difficult to select appropriate outcome measures (Bateman & Tyrer, 2004). For instance, the Department of Health or the general public may be interested in outcome measures which assess recidivism rates or reductions in hospital admissions. However, it cannot be assumed that change in these variables coincide with change in personality disorder symptoms or distress of the individual. Since there is some overlap between personality disorder and mental illness psychopathology, when there is a change in symptoms it is difficult to ascertain where the change has occurred. Mental illness can also affect the assessment of personality, thus confounding the measurement process. A change in self-harm behaviour can be a difficult variable to define and only represents one aspect of personality disorder.

Another difficulty with appraising research in this field is that there is an abundance of models and there may be allegiance effects in operation (Paris, 2010). Bateman and Tyrer (2002) reviewed the evidence-base of treatments for personality disorder and concluded that there is currently little evidence to indicate the specificity of any one treatment. Research comparing different types of psychological therapies have often obtained relatively equivalent outcomes suggesting that factors common to these therapies might account for positive

outcomes (McMain et al., 2009). Bateman and Tyrer (2002) recommended a number of key principles for effective treatment of personality disorder which were included in the NIMHE document, 'Personality disorder: No longer a diagnosis of exclusion' (NIMHE, 2003). They recommended that therapies should:

- Be well structured
- Devote effort to achieving adherence
- Have a clear focus
- Be theoretically coherent to both therapist and patient
- Be relatively long term
- Be well integrated with other services available to the patient
- Involve a clear treatment alliance between therapist and patient.

(NIMHE, 2003, p. 23).

The specialist personality disorder services, originally funded by the Department of Health, have offered psychological therapies from a number of therapeutic modalities to service-users, and they have also been developed in line with these key principles. A qualitative review of the 11 community pilot services (Price et al., 2009) identified a number of beneficial components including combining psychological treatments with social interventions, the importance of clear boundaries and providing services delivered over a relatively long period of time, which seem closely aligned to the NIMHE (2003) recommendations.

1.2.5 Therapeutic alliance, dropout and rupture with this client group.

Alliance ruptures and premature drop-out is common within psychotherapy for personality disorder, which frequently limits the effectiveness of treatment (Bennett, Parry, & Ryle, 2006). Up to half of clients drop-out during treatment

(Crawford et al., 2009) and those who drop out are likely to have negative prognoses (McMurran, Huband, & Overton, 2010). Individuals with diagnoses of personality disorder often present with high levels of interpersonal distress, and risky behaviours such as self-harm or aggression, which is likely to impact on the formation of therapeutic alliances (Holmes, 1999). Higher rates of burnout have also been observed in staff working with aggressive or suicidal client groups (Melchior, Bours, Schmitz, & Wittich, 1997).

Due to these strong relational dynamics, staff may be drawn to act in an anti-therapeutic manner, through acting out the emotions evoked in them by the client and reinforcing the client's interpersonal beliefs and expectations (Dimaggio, Semerari, Carcione, Nicolo, & Procacci, 2007). During psychotherapy it is helpful for therapists to anticipate interpersonal dynamics that might occur and develop sensitive and caring ways of responding, which is likely to require a significant level of self-discipline and insight. Therapists will also need to maintain a capacity for mentalisation whilst attending to high levels of emotion in the client.

Individuals with personality disorder can also be sensitive to or intolerant of therapeutic errors and so the competence of therapists in working through therapeutic ruptures is crucial (Martin, Martin, & Slemon, 1987). According to Safran and Muran (2000), the negotiation of therapeutic ruptures is central to treatment, through breaking the interpersonal cycles that are currently maintaining the client's distress. Repair of ruptures during therapy can help the client to explore key interpersonal processes and learn how to negotiate with others in a constructive manner. Research has shown that within psychotherapy for personality disorder, a pattern of significant shifts in alliance scores rather than minor fluctuations, indicating episodes of rupture and repair, predicts improvement on personality and

depression symptoms (Strauss et al., 2006). Therapists in good outcome cases are also better able to recognise negative enactments and focus attention to them than therapists in poor outcome cases (Bennett, et al., 2006).

Despite the frequency of alliance ruptures and high drop-out rates within psychotherapy for personality disorder, there still remains a lack of research exploring factors which influence alliance within this client group. The different models of psychotherapy described above view developing and maintaining the therapeutic alliance as a key focus when working with this client group. However, they focus more on the client's contribution to the alliance, rather than the therapist's contribution. Previous research has also taken a similar focus, neglecting therapist factors in favour of focusing on client factors. Clinical practice guidelines for personality disorder (NIMHE, 2003) have recognised that different models of psychotherapy gain equivalent outcomes, and so the guidelines have instead emphasised common factors such as the length of treatment and the maintenance of a clear therapeutic alliance. Whilst there is a need for further pragmatic research trials comparing the efficacy of different brands of psychotherapy, it is also important for research to examine aspects of the therapeutic process that have been shown to be strongly associated with outcomes, such as the factors that promote a strong therapeutic alliance.

1.3 Therapeutic Alliance

1.3.1 Overview.

The importance of the therapeutic relationship has long been acknowledged (Bordin, 1979; Gelso & Carter, 1985; Gilbert & Leahy, 2009). Over 2000 years ago, Hippocrates suggested that the relationship between physician and patient was

central to the healing process (Gilbert & Leahy, 2009). Freud (1940) referred to the client as a collaborator in therapy and highlighted the importance of the therapeutic relationship in his papers about positive transference. The humanistic approach to psychotherapy, pioneered by Rogers (1965) views the therapeutic relationship as being the central mechanism behind therapeutic change. Rogers identified careful listening, positive regard and empathy as the most important features of a positive therapeutic relationship. Greenson (1965) emphasised the centrality of the therapeutic relationship and distinguished between the task focused nature of the working alliance and the bond between client and therapist. As the cognitive behavioural therapies have grown in popularity and research evidence has supported the therapeutic benefits of a positive therapeutic alliance, the tradition has also acknowledged the importance of the therapeutic relationship, which they believe is a necessary foundation for therapeutic work to take place (Gilbert & Leahy, 2009).

Various terms have been used to refer to the therapeutic alliance including working alliance, therapeutic bond and global alliance (Clarkson, 1995). Whilst there may be subtle differences in the definition of each term, they tend to be used interchangeably and for similar areas of research (Clarkson, 1995). Most definitions are based on Bordin's (1979) conception of the therapeutic alliance as consisting of the bond between client and therapist and their agreement about the goals and tasks of therapy. Key qualities of the therapeutic relationship have been identified including its restorative value and the promotion of personal growth in the client.

It has been argued that the importance of the relationship between client and therapist unites all psychotherapeutic approaches. Research has demonstrated that the strength of the therapeutic alliance is a strong predictor of clinical outcomes for various models of psychotherapy (Horvath, Del Re, Flückiger, & Symonds, 2011).

However, there are differences in the way that the therapeutic relationship is viewed by different schools of psychotherapy and the mechanism through which it is assumed to be of therapeutic benefit. Psychodynamic therapies view the therapeutic relationship as a means of gaining insight through the use of feedback and interpretations given by the therapist (Clarkin, Yeomans, & Kernberg, 2006). They also see therapeutic value in the relationship in itself, due to the benefits associated with reparenting or experiencing a new relationship that differs from the client's early relationships with caregivers. In comparison, cognitive behavioural therapies see the therapeutic relationship as necessary but not sufficient for positive clinical outcomes (Gilbert & Leahy, 2009). Since the cognitive behavioural tradition place value on objective measurement of outcomes and using research evidence to inform practice, it has been emphasised that further research should take place to explore the key components of the therapeutic relationship and the processes behind the association between alliance and outcomes (Gilbert & Leahy, 2009).

1.3.2 Theories of the therapeutic alliance.

There are several theories of the therapeutic alliance. Clarkson (1995) proposed that the therapeutic relationship consists of five elements; the working alliance, the transference and countertransference relationship, the reparative and developmentally-needed relationship, the person to person relationship and the transpersonal relationship. Clarkson stated that these five elements of the relationship were not a series of stages but overlapping states. Whilst each of these elements are emphasised differently in various models of psychotherapy, the combination of all the elements are seen to form a coherent whole. She described the working alliance as the part of the relationship that allows collaborative therapeutic work to take place despite the barriers that may emerge. The transference

relationship refers to the unconscious thoughts and feelings from both clients and therapists which are transferred onto the therapeutic relationship. The reparative relationship provides a new corrective relational experience that differs from the client's past experiences of other caregivers, who may have provided care that was deficient, abusive or overinvolved. The person to person relationship is described as the real or core relationship between two human beings. Finally, the transpersonal relationship is used to refer to the inexplicable dimensions of the relationship that have a positive therapeutic value.

Hardy, Cahill and Barkham (2007) conducted a review of the literature in order to identify the key components of the therapeutic relationship. They defined three stages involved in building a therapeutic relationship which comprise different processes and objectives. The first stage, 'establishing a relationship', involves the use of empathy, negotiation of goals, support and affirmation in order to facilitate engagement. The engagement objectives for this stage are supporting clients to build positive expectations of therapy, developing their intentions and motivation for change, and engendering hope. The second stage, 'developing the relationship' involves using exploration, feedback, reflection, nonverbal communication and relational interpretations to develop a trusting, open and committed therapeutic relationship. The final stage, 'maintaining the relationship' involves increasing the client's capacity to express their emotions, experiencing a new view of self with others and maintaining a positive working alliance, including through periods of rupture.

1.3.3 Measurement of working alliance.

A number of measures of working alliance have been developed, based upon the theories of alliance described above. For example, the Working Alliance

Inventory (Horvath & Greenberg, 1989) is based on Bordin's (1979) conceptualisation of the therapeutic alliance as consisting of the therapeutic bond, and agreement about the tasks and goals of therapy. A review of three commonly used alliance measures identified six common factors to these scales; bond, idealised relationship, goals and tasks, confident collaboration, help received and dedicated patient (Hatcher & Barends, 1996), although each scale focused on different features of the alliance concept. Critics have argued that the alliance concept is too broad and there may often be third factors confounding results in psychotherapy outcome research (Elkins & Green, 2008). However, some studies have demonstrated significant relationships between alliance and clinical outcomes, whilst controlling for third factors such as client characteristics (Howard, Turner, Olkin & Mohr, 2006) and early improvements in symptoms (Weerasekera, Linder, Greenberg & Watson, 2001).

The Vanderbilt Therapeutic Alliance Scales (Gomes-Schwartz, 1978), the Working Alliance Inventory (Horvath & Greenberg, 1989), and the California Psychotherapy Alliance Scales (Marmar, Weiss, & Gaston, 1989) have gained most empirical support and have been used in clinical outcome trials (Elkins & Green, 2008). Most scales have developed client, therapist and observer versions and research has shown that therapist and client alliance ratings are often correlated (Elkins & Green, 2008). However, there can be a tendency for clients to have more positive perceptions of the alliance than therapists (Couture et al., 2006). Some measures use coding systems for external observers to rate different interpersonal behaviours whilst others use self-report to identify client or therapist perceptions of the alliance. Self-report measures are subjective, require participants to have a certain level of personal insight and may be subject to social desirability bias.

Measures based on behavioural observations may not suffer from these limitations, but reliability of coding systems can be low and it has been argued that they do not adequately capture the attitudinal or motivational aspects of alliance (Elkins & Green, 2008).

Since theories of working alliance have remained at a descriptive level, it has been recommended that future research should use alliance measures to identify the processes behind the development of alliance (Elkins & Green, 2008).

1.3.4 Relationship to clinical outcomes.

Research has consistently demonstrated that the strength of the therapeutic alliance is a predictor of clinical outcomes across different therapeutic modalities (Horvath et al., 2011). Correlations of between .21 and .29 have been cited (Gilbert & Leahy, 2009), and a recent meta-analysis (Horvath, et al., 2011) reported that therapeutic alliance was a robust predictor of outcomes ($r = .275$). However, this meta-analysis also demonstrated that there was significant variability in the alliance-outcome relationship, due to a number of factors such as the operationalisation of alliance or the time of measurement. Since it is difficult to manipulate the strength of the therapeutic relationship and most studies in the field have been correlational, it has been questioned whether the association between alliance and outcome is a causal relationship. It has been suggested that the strength of the alliance may increase following improvement in client's symptoms, indicating that the alliance-outcome relationship may be bi-directional or operate in the reverse direction than has been commonly reported (DeRubeis & Feeley, 1990; Tang & DeRubeis, 1999). DeRubeis, Brotman, and Gibbons (2005) have suggested that the relationship between alliance and outcome may be due to the separate contributions of the client

or therapist, the match or interaction of client and therapist, or related to early improvements in symptoms increasing alliance ratings.

1.3.5 Client factors influencing working alliance and clinical outcomes.

Research has demonstrated that a number of client factors influence alliance and outcome, such as client attachment style (Byrd, Patterson, & Turchik, 2010; Satterfield & Lyddon, 1995), motivation level (Black et al., 2005), personality characteristics (Bachelor, Laverdiere, Gamache & Bordeleau, 2007) and problem severity (Kilmann et al., 1979). Recent reviews have acknowledged that client's with healthier early relationships and more secure attachment styles report better alliances with their therapists (Horvath et al., 2011). Watson and Kalogerakos (2010) estimate that 33% of the variance in client-rated alliance is due to client attachment style. They identify a number of other client characteristics associated with alliance including client expectations for therapy and feelings of shame. However, these reviews have also reported that the association between alliance and outcome, is largely due to the contribution of the therapist, rather than client factors (Horvath, et al., 2011).

1.3.6 Therapist factors influencing working alliance and clinical outcomes.

Therapist factors such as personal qualities, use of techniques (Ackerman & Hilsenroth, 2001; 2003) and attachment style (Black, Hardy, Turpin, & Parry, 2005; Bruck, Winston, Aderholt & Muran, 2006) have been associated with ratings of therapeutic alliance and clinical outcomes. A recent meta-analysis demonstrated that therapist factors paid a significant contribution to the alliance-outcome relationship, whilst controlling for client axis II diagnoses and various factors of study methodology (Del Re, Flückiger, Horvath, Symonds, & Wampold, 2012). They also

compared within-therapist effects (variability in outcome and alliance amongst a therapist's caseload of different patients) and between-therapist effects. The alliance-outcome correlation between-therapists was quite large (magnitude $\geq - .40$) but within-therapists was non-significant. The authors concluded that variability of patients within-therapists was unrelated to outcome but between-therapist variability was a strong predictor of outcomes. Since the overall correlation between alliance and outcome in this meta-analysis and previous studies was much lower than the between-therapist outcome-alliance relationship correlation, they also suggested that the literature may be underestimating the strength of the alliance-outcome correlation.

1.4 Attachment

1.4.1 Overview.

John Bowlby (1969, 1973, 1988) developed a theoretical framework for understanding human relational behaviour, which is commonly known as attachment theory. His central thesis was that humans are equipped with a biologically-based system which helps them to maintain proximity to caregivers when under threat, in order to promote survival (Bowlby, 1969). Bowlby stated that sensitive and responsive caregivers would provide infants with experiences of a secure base, where they could gain physical security, nourishment and comfort. He proposed that as an infant developed expectations of the caregiver as caring, available and responsive, thus internalising a representation of the secure base, the caregiver would then be used as a base for exploration (Bowlby, 1969). During this process, the infant would develop a sense of the self as being loved, capable and independent, thereby facilitating healthy separation and exploration. However, when the caregiver is not perceived to be available and responsive, causing the infant anxiety regarding

their physical and emotional security, they are likely to respond either by remaining close to the caregiver and avoiding exploration or becoming detached and avoiding seeking protection from others in future (Bowlby, 1969).

Bowlby used the concept of the internal working model to refer to these expectations of self and other, which inform future attachment behaviour (Bowlby, 1969). He believed that certain characteristics of early attachment experiences would affect the security of these relationships and form the basis of the internal working model. Internal working models include unconscious and conscious elements which affect different levels of experience including cognition, attention, behaviour and emotion.

Since Bowlby viewed the maintenance of close relationships as key to survival, he argued that loss or trauma within these relationships would pose a serious threat to the infant's sense of self and impact on their internal working model of relationships (Bowlby, 1969, 1973, 1988). Bowlby drew upon observational studies of children separated from their parents (Heinicke, 1956; Robertson & Bowlby, 1952; Robertson, 1953b;) in order to illustrate the short-term and longer-term effects of early separation from caregivers. Bowlby (1969) categorised the sequence of behaviours observed by infants who are separated from their caregiver into three phases; protest, despair and detachment.

Bowlby's theoretical framework was developed by the research of Ainsworth and colleagues (Ainsworth, Bell & Stayton, 1971; Ainsworth, Blehar, Waters & Wall, 1978), who measured attachment behaviour in infants and their caregivers. Ainsworth and Bell (1970) developed an experimental procedure known as the 'Strange Situation'. During this procedure, observations are made regarding the

infant's willingness to explore the environment, their distress in response to separation from the caregiver, their reunion behaviour, and anxiety associated with the presence of a stranger. Ainsworth and Bell categorised the behaviours they observed in 12-18 month old infants as secure, insecure-avoidant and insecure-ambivalent. A fourth category was later identified by Main and Solomon (1986; 1990), labelled as disorganised. Secure patterns of attachment were associated with exploration of the toys in the room, preference for the caregiver above the stranger, distress at separation from the caregiver and comfort upon being reunited. Insecure-avoidant infants tended to display little proximity-seeking and emotional response in relation to the caregiver, throughout the conditions of separation and reunion.

Insecure ambivalent-infants showed mixed reactions to their caregiver, often demonstrated through a pattern of approach and avoidance. These infants did not appear to gain comfort from being reunited with their caregiver and tended not to return to play or exploration. The concept of disorganised attachment has been associated with infants who display no clear strategy for relating to the caregiver, but behaviours such as freezing or fearful clinging to the caregiver may be exhibited. Bowlby's (1969) theory that responsive caregiving would be associated with secure attachment behaviours in infants was supported by the observations of Ainsworth and Bell (Ainsworth, Bell & Stayton, 1971; Ainsworth, Blehar, Waters & Wall, 1978). In comparison, insecure-avoidant behaviours were observed in infants whose caregivers were insensitive or dismissive of the infant's needs, and insecure-ambivalent behaviours were observed in infants whose caregivers responded in an extremely inconsistent manner.

1.4.2 Stability across the lifespan.

Bowlby's concept of the internal working model proposes that humans develop an orientation toward attachment figures based upon their earlier experiences, although this remains open to revision (Bowlby, 1969). In similarity with a scientific theory, new experiences are interpreted in line with the present model more frequently than the present model is adapted to fit with new experiences (Rhodes & Simpson, 2004). However, Bowlby (1969) believed that change could occur in response to emotionally and interpersonally significant life events, such as loss, separation or trauma. For example, Egeland and Farber (1984) found that infants whose attachment classification changed from secure at 12 months to insecure-ambivalent at 18 months had also experienced an increase in stressful life events during that period.

There is mixed evidence regarding the long-term stability of attachment patterns. For example, Waters, Merrick, Treboux, Crowell and Albersheim, (2000) found that 72 per cent of infants gained the same attachment classification at age one as at follow up twenty years later. However, Lewis (2000) found that only 38 per cent of insecurely attached infants were classified as insecurely attached at 18 years of age, and only 43 per cent of securely attached infants gained the same classification at 18 years. Fraley (2002) conducted a meta-analysis using data from 27 samples, and reported that there was a correlation of .39 between attachment security of infants at age 1 and attachment security assessed at a later point in development. There is evidence that adult attachment also shows stability. For example, Klohnen and Bera (1998) reported that approximately 70 per cent of adult women received the same attachment classification over an extended period of up to 25 years.

1.4.3 Attachment in adult relationships.

Bowlby's attachment theory is a theoretical framework for understanding human relationships across the lifespan, from 'the cradle to the grave' (Bowlby, 1988). Models of adult attachment have been developed which show some correspondence to the attachment categories described by studies examining infant-caregiver relationships (Bartholomew & Horowitz, 1991; Brennan, Clark & Shaver, 1998). Research has demonstrated the similarities between infant and adult attachment behaviour. Simpson, Rholes and Nelligan (1992) devised an experimental procedure for measuring attachment behaviour in female undergraduate students towards their male romantic partners. The procedure involved participants being separated from their partners prior to anticipating a stressful event. They found that securely attached participants initiated more contact with their partner when under conditions of higher anxiety. In contrast, avoidantly attached participants sought less contact with their partner under conditions of higher anxiety. These observations appear consistent with Bowlby's (1969) concept of proximity-seeking and Ainsworth and Bell's (1970) observations of similar behaviours within the Strange Situation.

Bartholomew (1990) conceptualised a model of adult attachment as four attachment patterns positioned on the dimensions of model of self and model of others. He proposed that secure attachment was associated with a positive view of self and others, dismissing attachment was associated with positive view of self but negative view of others, preoccupied attachment was associated with a negative view of self but positive view of others, and fearful attachment was associated with negative views of self and others.

Hazan and Shaver (1987) explored adult attachment in the context of romantic relationships, which they believed shared many features with infant attachment such as proximity seeking and separation anxiety. They developed a self-report questionnaire measure of individual differences in adult attachment, which asked adults to rate their attachment style using brief descriptions of the three categories; secure, avoidant and ambivalent. They found that 60 per cent of adults classified themselves as securely attached, 20 per cent identified with the avoidant description and 20 per cent chose the ambivalent category.

Brennan, Clark and Shaver (1998) conceptualised adult attachment in terms of anxiety and avoidance. Attachment anxiety is the extent to which individuals are sensitive to cues of abandonment or rejection from attachment figures and attachment avoidance is the extent to which individuals are uncomfortable relying on attachment figures for support in times of need.

1.4.4 Measurement of adult attachment.

A number of self-report and interview measures of adult attachment have been developed. The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) assesses attachment states of mind based on the style and coherence of participant narratives about early relationship experiences with caregivers. Research using the AAI has found associations between the attachment security of infants and their caregivers (Ainsworth, Blehar, Waters & Wall, 1978; Fonagy, Steele, Moran, Steele, & Higgit, 1991). The interview also assesses reflective function, or the ability to reflect on the internal states of self and other. Studies have shown that reflective function of caregivers is associated with the attachment security of their infants, indicating that this could be one mechanism through which intergenerational transmission of attachment may operate (Fonagy, Steele, Moran, Steele, & Higgit,

1991). However, the AAI is lengthy to complete, requires training to administer and places high emotional demand on participants. Consequently, it can be unfeasible to use the measure in small-scale research studies and clinical settings.

An alternative line of research has developed self-report measures of adult attachment, focusing on romantic attachment relationships (Hazan & Shaver, 1987) or other close relationships (Bartholomew & Horowitz, 1991). The Experiences in Close Relationships Scale (ECR) is a self-report measure that is based on Brennan, Clark & Shaver's (1998) dimensional conceptualisation of adult attachment, incorporating the two dimensions of attachment anxiety and attachment avoidance. The ECR was administered to undergraduate students and participants were clustered into four groups, which corresponded to Bartholomew's (1990) four adult attachment types; secure, fearful-avoidant, dismissing-avoidant and preoccupied (Brennan et al., 1998). The secure cluster scored low on avoidance and anxiety, the fearful-avoidant cluster scored high on avoidance and anxiety, the dismissing-avoidant cluster scored high on avoidance but low on anxiety, and the preoccupied cluster scored low avoidance but high on anxiety.

Research has demonstrated the benefits of using a dimensional rather than a categorical approach to adult attachment (Bartholomew & Horowitz, 1991; Brennan et al., 1998), such as increased flexibility in the way attachment is understood and being able to account for more subtle individual differences (Markin & Marmarosh, 2010). Classifying attachment in categorical terms has also been viewed as overly pessimistic, and as failing to acknowledge that attachment styles have developed as a means of coping with early experiences (Fagot & Kavanaugh, 1990). Crittenden's (1995) dynamic maturational model states that attachment behaviours are self-protective strategies which help individuals to get their needs met. It has been

hypothesised that even individuals who demonstrate secure attachment behaviour will use alternative secondary attachment strategies when under stress (Goodman, 2010). Some individuals may have a tendency to use hyperactivating strategies (Cassidy & Kobak, 1988), which attempt to increase closeness to relationship partners in order to gain care and security, but at the risk of restricting autonomy. Other individuals may use more deactivating strategies (Cassidy & Kobak, 1988), which involve avoidance of closeness with others and denial of emotional needs in order to avoid the distress associated with unavailability of attachment figures.

Some research has found low or nonsignificant correlations between AAI and self-report measures (Simpson, Rholes, Orina & Grich, 2002), whilst other studies have showed moderate correlations (Shaver, Belsky & Brennan, 2000). Self-report measures of attachment have received criticism due to the, at best, modest correlations with AAI scores. It has also been argued that self-report measures require a certain level of participant insight and do not assess the unconscious processes of attachment, which may have a stronger association with interpersonal behaviour (Rholes & Simpson, 2004). However, research has demonstrated a relationship between self-report attachment measures and a number of implicit or behavioural measures of attachment (e.g. Mikulincer, 1998; Simpson et al., 2002).

Self-report and interview measures also assess different aspects of attachment. The AAI is used to assess unconscious states of mind in relation to early relationships with caregivers, whereas self-report measures assess conscious beliefs about current adult relationships. They may, therefore, be used in different lines of research in order to answer different types of research questions.

1.4.5 Attachment and caregiving behaviour.

Bowlby (1988) proposed that sensitive caregivers would be able to regulate their behaviour to attune to the person being cared for and respond in a flexible and caring manner, resulting in a sense of security being established. Bowlby also referred to a style of caregiving associated with insecure attachment, known as compulsive caregiving, where the child focuses on meeting the needs of others and ignores their own. It has been suggested that levels of compulsive caregiving may be particularly high in the helping professions (Malan, 1979).

Research has found that securely attached individuals, across the lifespan, develop more supportive, close relationships than insecurely attached individuals. Securely attached children are better able to form positive relationships with peers, parents and teachers (Ellicker, Englund & Sroufe, 1992) and securely attached adults report having longer lasting and more satisfying romantic relationships than insecurely attached adults (Creasey & Hesson-McInnis, 2001).

Research has confirmed that attachment style affects caregiving behaviour. For example, Kunce and Shaver (1994) found that securely attached individuals reported less compulsive and controlling caregiving, and high levels of proximity and sensitivity. However, preoccupied individuals reported less sensitivity but high compulsive caregiving and proximity. Fearful-avoidant individuals reported high compulsive caregiving but low sensitivity and proximity. Dismissing-avoidant individuals reported low compulsive caregiving and sensitivity and proximity. Research has also demonstrated associations between attachment security and caregiving motivations (Feeney & Collins, 2003) and altruistic behaviour (Mikulincer, Shaver, Gillath, & Nitzberg, 2005).

1.4.6 Client attachment and psychotherapy.

Insecure attachment has been associated with a range of mental health problems (Van IJzendoorn & Bakermans-Kranenburg, 1996). Consequently, insecurely attached individuals, who may have also experienced interpersonal traumas such as loss or abuse, often present to mental health services (Berry & Drake, 2010). Psychological therapies may provide opportunities for exploration and revising insecure attachment behaviours (Bowlby, 1988).

Many have argued that clients develop therapeutic attachment relationships with mental health staff (Adshead, 1998; Bowlby, 1988; Dozier, Cue & Barnett, 1994; Goodwin, 2003). Schuengel and van IJzendoorn (2001) state that attachment relationships are more likely to be formed with mental health staff when clients have few pre-existing attachment relationships, when they are finding it difficult to cope with attachment related threats and when mental health services are able to provide a stable secure base over a significant period of time. They report that attachment relationships between clients and staff only develop if clients are able to use the staff member as a secure base for an extended period of time. The Department of Health recommend that psychotherapy for personality disorder should be long term and no less than three months in duration. Therefore, these interventions are likely to evoke attachment behaviour (NIMHE, 2003). Models of psychotherapy recommended by NICE for BPD (2009), such as DBT, take place over a period of at least one year, and often longer (Palmer, 2002).

Bowlby (1988) stated that the therapeutic relationship was influenced by the client and therapist's internal working model of relationships. He believed that individual psychotherapy would provoke emotions and memories from previous

caregiving and care-seeking experiences. Research examining the impact of client attachment on psychotherapy has produced mixed results. Some studies have found that securely attached clients gain better therapy outcomes (Saatsi, Hardy, & Cahill, 2007) and are better able to form positive therapeutic alliances (Satterfield & Lyddon, 1995) than insecurely attached clients. Byrd, Patterson and Turchik (2010) found that the attachment dimensions 'comfort with closeness' and 'depending on others' were associated with alliance and clinical outcomes. However, within the same study 'rejection anxiety' was not associated with alliance or outcomes, suggesting that certain elements of insecure attachment pose a greater barrier within psychotherapy than others. Similarly, other studies have found that insecurely attached clients have shown greater improvement during treatment than securely attached clients. For example, one study found that clients with dismissive attachment styles showed the greatest improvement during psychotherapy (Fonagy et al., 1996).

1.4.7 Therapist attachment and psychotherapy.

Bowlby (1988) viewed the role of the therapist as providing a secure base for clients to express their feelings, as a mother provides a secure base for her child to explore the world. The therapeutic relationship can be viewed as an attachment relationship, displaying the key features of proximity seeking, separation distress, exploration from a secure base and development of a safe haven which reduces distress (Bowlby, 1982/1969; Holmes, 2010). Bowlby believed that therapists would need to take a stance that would challenge clients' current interpersonal beliefs and expectations in order for therapeutic change to occur. Dozier and Tyrrell (1997) suggest that this requires a certain level of psychological robustness in the therapist, in order to resist being drawn into reinforcing insecure attachment patterns. For

example, when working with individuals with dismissing attachment styles, therapists should resist the inclination to allow the client to avoid emotionally intimate issues and gently guide them to explore these issues. In contrast, when working with the preoccupied client, therapists should encourage autonomy, despite the sense of anxiety this may provoke in both the therapist and client. Dozier, Cue, and Barnett (1994) have shown that securely attached clinicians are better able to act in this 'non-complementary' manner, through intervening in greater depth with clients with dismissing attachment styles than those with preoccupied attachment styles. Holmes (2010) suggests that in successful psychological therapy there is a move from transference to insight, as the therapist provides feedback about relational dynamics that occur and offers a new way of relating.

Research has found that staff attachment style influences a number of aspects of the therapeutic process including the working alliance (Berry et al., 2008; Black, Hardy, Turpin, & Parry, 2005), countertransference behaviour (Mohr, Gelso & Hill, 2006), therapist empathy (Rubino, Barker, Roth, & Fearon, 2000) and clinical outcomes (Bruck, Winston, Aderholt & Muran, 2006). However, some studies have not gained significant associations (Ligiero & Gelso, 2002). Some studies have explored interaction effects, showing that the influence of therapist attachment changes over time (Sauer et al., 2003), in relation to different levels of client interpersonal problems (Schauenberg et al., 2010) and in interaction with client attachment style (Dozier et al., 1994; Mohr et al., 2005; Tyrrell et al., 1999; Romano et al., 2009). It has been proposed that therapists with secure attachment styles are more flexible in working with a range of clients and have an increased capacity to remain reflective and manage the countertransference despite high levels of client distress (Schauenberg et al., 2010). This interpretation is consistent with the

assumptions of attachment theory (Bowlby, 1988) and research exploring child and caregiver attachment behaviour, linking responsiveness of the attachment figure and secure attachment behaviour (Ainsworth et al., 1978). Despite the fact that research evidence suggests that therapist attachment significantly affects the psychotherapeutic process when working with clients with high levels of distress and interpersonal problems (Schauenberg et al., 2010), the influence of therapist attachment has not yet been explored in relation to the personality disorder client group who are likely to experience the most severe interpersonal problems.

1.5 Emotion Regulation

1.5.1 Overview.

Emotion regulation can be defined as “the ability to tolerate, be aware of, put into words, and use emotions adaptively, to regulate distress and promote needs and goals” (Elliot, Watson, Goldman, & Greenberg, 2004, p. 32). Emotion regulation involves automatic, controlled, conscious and unconscious processes which result in the escalation, reduction or maintenance of emotion, depending on the goals of the individual (Gross & Thompson, 2007). Emotion is seen to serve adaptive functions, in the physical, psychological and interpersonal domains (Darwin, 1872; Lazarus, 1991).

1.5.2 Theories of emotion regulation.

Psychology has always been interested in how emotion is regulated, from the earliest psychoanalytic theory of psychological defences (Freud, 1926/1959), through to theories of stress and coping (Lazarus & Folkman, 1984), emotion theory (Frijda, 1986) and more recent transdiagnostic models (e.g. Gratz & Roemer, 2004;

Nolen-Hoeksema & Watkins, 2011). In his paper *Inhibitions, Symptoms and Anxiety*, Freud (1926/1959) describes how the experience of anxiety is related to intrapsychic conflicts which inhibit other mental functions. He emphasised the human drive to maximise pleasure and avoid pain, as a motivation or goal for emotion regulation. Lazarus and Folkman's model of stress and coping (1984) outlined how an individual's capacity to cope with internal or external stressors will depend on their appraisal of the stressor and the resources available to them to help them to cope. Lazarus identified emotion regulation as one function of coping in altering the way one thinks or feels in relation to a stressor. Frijda (1986) took an information-processing perspective to emotion regulation, theorising that emotions are the outcome of an individual's appraisal of events as consistent or inconsistent with their personal interests. He believed that emotions promoted physical and social survival through supporting action tendencies and decision making.

More recently, Watson and colleagues developed a model of emotion regulation (Elliot, Watson, Goldman, & Greenberg, 2004; Kennedy-Moore & Watson, 1999; Watson & Prosser, 2004). According to the model, adaptive emotion regulation involves an awareness of emotional arousal, accurate labelling of emotional experience, acceptance of emotion, modulation of emotional expression and arousal levels in order to meet an individual's goals, and reflection and integration of emotional experience into other aspects of self and environment. Watson and colleagues believe that the key to healthy emotion regulation is the capacity to engage in each of these processes although they will not always occur in a sequential fashion.

Gratz and Roemer (2004), who have also developed a measure of emotion regulation (Difficulties in Emotion Regulation Scale, DERS, Gratz & Roemer,

2004), conceptualise emotion regulation as involving four similar processes; an awareness and acceptance of emotional experience, an ability to engage in goal-directed behaviour and inhibit unhelpful behaviour when experiencing negative emotion, flexible use of strategies to modulate emotional experience, and a viewing of negative emotion as part of life.

Research has supported the hypotheses made by these models. For example, avoidance, rather than acceptance, of emotional experiences has been associated with increased physiological arousal (Gross & Levenson, 1997) and impulsive negative behaviours such as self-harm have been linked to emotion regulation difficulties (Mikolajczak, Petrides, & Hurry, 2009).

1.5.3 Measurement of emotion regulation.

Whilst there has been increasing interest in the concept of emotion regulation, there remains a lack of well-validated measures that adequately assess individual differences in emotion regulation (Gratz & Roemer, 2004). Many commonly used measures assess related constructs or only certain facets of emotion regulation. For example, the Generalised Expectancy for Negative Mood Regulation Scale (NMR; Catanzaro & Mearns, 1990) measures beliefs about strategies that modulate positive and negative emotional states, but does not assess awareness, understanding, and acceptance of emotions. The Emotion Regulation Questionnaire (ERQ, Gross & John, 2003) assesses individual differences in emotion regulation but focuses on only a small number of strategies, namely suppression and reappraisal. The Cognitive Emotion Regulation Questionnaire (Garnefski, Kraaij, & Spinhoven, 2001) focuses on cognitive strategies, rather than behavioural strategies.

Gratz and Roemer (2004) developed the DERS in response to the lack of emotion regulation measures and the limitations of those already available. Their

measure assesses many different aspects of emotion regulation, including acceptance of emotional experiences and access to helpful coping strategies. The measure is psychometrically young but initial validation studies have produced promising results and the DERS has been successfully used in research of clinical and non-clinical populations (e.g. Fox, Axelrod, Paliwal, Sleeper, & Sinha, 2007; Gratz, Tull, Baruch, Bornovalova & Lejuez, 2008; Gratz & Roemer, 2004; Johnson et al., 2008).

1.5.4 Emotion regulation and psychopathology.

In recent years the role of emotion regulation as a transdiagnostic process behind various mental health problems has been investigated empirically (Kring, 2010). Research has found an association between difficulties in emotion regulation and a range of mental health problems including depression and anxiety (Rude & McCarthy, 2003; Stipelman, Salters-Pedneault, & Gratz, 2009; Mennin, Heimberg, Turk, & Fresco, 2005), substance misuse (Fox, Hong, & Sinha, 2008), and BPD (Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006). Emotion regulation difficulties have also been linked to other aspects of well-being including social functioning, coping and problem solving (Haga, Kraft, & Corby, 2009; Kennedy-Moore & Watson, 1999; Mikulincer, Shaver, & Pereg, 2003).

Linehan's (1993) model of BPD views emotional vulnerability and emotional regulation difficulties as being central to BPD psychopathology. Individuals with BPD experience emotions as intense and frequently fluctuating from anger or fear to chronic emptiness. They can be extremely sensitive to emotional cues, reacting quickly and experiencing intense distress which may seem disproportionate to others. Linehan (1993) suggested that feelings of shame may be linked with self-injurious and impulsive behaviour, and a recent study found that women with BPD experienced higher levels of shame than individuals with other mental health

problems (Rüsch et al., 2007). The DBT treatment model encourages clients to take a more accepting and mindful approach to their emotional experiences and teaches them skills to use to help them to manage their distress.

Other psychotherapies for personality disorder conceptualise emotion regulation differently. MBT is based on the assumption that individuals with personality disorder experience impairments in their capacity to mentalise, or to understand human behaviour in terms of mental states (Fonagy & Bateman, 2008). The focus for treatment is, therefore, to support clients to mentalise their emotions, which involves similar processes of emotional awareness and distress tolerance to therapies like DBT and transdiagnostic models of emotion regulation (Nolen-Hoeksema & Watkins, 2011; Gratz & Roemer, 2004).

Since all psychotherapies for personality disorder are relatively long term (NIMHE, 2003), these interventions are likely to evoke attachment behaviour and trigger strong emotions in clients when there is disruption or periods of rupture within the therapeutic relationship. Clients with personality disorder may act out their distress through impulsive, aggressive or self-injurious behaviour. These behaviours are likely to cause further strain to the therapeutic relationship, for both clients and therapists, and their capacity to work through these emotional experiences is likely to be crucial for positive therapeutic outcomes (Dimaggio, et al., 2007). Working with clients with such high levels of distress is likely to exert a high level of emotional strain on staff working in these services, which may be connected to the elevated levels of burnout reported (Cleary, Siegfried, & Walter, 2002).

1.5.5 Attachment and emotion regulation.

Individuals experience a diverse range of intense emotions within close attachment relationships (Mikulincer & Shaver, 2005). Bowlby (1969/1982) believed that attachment relationships were key for effective emotion regulation and that disruption to early attachments would result in emotion regulation difficulties.

Shaver and Mikulincer (Mikulincer & Shaver, 2003; Shaver & Mikulincer, 2002) have proposed a model of attachment and emotion regulation based on an extensive review of the literature. In agreement with Bowlby (1969/1982) they assume that the attachment system is activated by threats to physical or emotional security. An individual's interpersonal expectations, regarding the availability or responsiveness of attachment figures, then affects the type of emotion regulation strategy used. Individuals develop hyperactivating strategies (Cassidy & Kobak, 1988) when attachment figures are inconsistent or unavailable and so clinging or controlling responses are used to elicit support (Shaver & Hazan, 1993). Individuals perceive themselves as incapable of regulating their emotions without support from others and so hyperactivating strategies inhibit personal autonomy and result in an overdependence on attachment figures. These strategies are also associated with hypervigilance to threat and the unavailability of attachment figures, causing chronic activation of the attachment system (Shaver & Mikulincer, 2002). In contrast, deactivating strategies (Cassidy & Kobak, 1988) are used when individuals expect that seeking proximity to attachment figures will be unlikely to reduce their distress, resulting in them denying their emotional and attachment needs. Individuals avoid emotional intimacy within relationships in order to prevent themselves re-experiencing the disappointment and distress associated with the unavailability of attachment figures. Mikulincer and Shaver (2003) associate hyperactivating

strategies with attachment anxiety, and deactivating strategies with attachment avoidance. Research has supported these hypotheses. For example, Mikulincer and Orbach (1995) found that students with attachment avoidance had the longest reaction times for recalling sad or anxious memories, compared to secure or anxiously-attached participants. In comparison, anxious or preoccupied students had the quickest reaction times for recalling negative memories, supporting Mikulincer and Shaver's (2003) hypothesis that attachment anxiety would result in hypervigilance to threat and chronic activation of the attachment system. Another study found that insecurely attached individuals scored highly on alexithymia (Meins, Harris-Waller & Lloyd, 2008), which is a term used to describe difficulties identifying and describing emotions (Pandey, Saxena & Dubey, 2011).

In their paper, Mikulincer and Shaver (2003) also discussed the emotional responses of individuals with secure or insecure attachment styles to different interpersonal situations. For instance, they expected that in response to the negative behaviour of a partner, securely attached individuals would be able to express their anger whilst responding in ways that help to maintain and improve the relationship (Averill, 1982). Securely-attached individuals are able to trust partners and so are able to see their negative behaviour as temporary and reversible, which is supported by research showing that secure individuals are able to make accurate appraisals of a partner's negative behaviour (Mikulincer, 1998). However, individuals who experience high levels of attachment anxiety will experience intense anger and distress in response to a partner's negative behaviour, but will not be able to express this due to their fears of separation. Instead they are likely to internalise their distress through becoming self-critical, ruminating and experiencing growing resentment. Self-reported reactions of anxiously attached individuals to negative partner

behaviour is consistent with this and they are also more likely to make negative appraisals of a partner's intentions (Mikulincer, 1998). Individuals who experience high levels of attachment avoidance are likely to suppress their anger associated with negative partner behaviour from conscious awareness, in order to maintain their emotional distance from others and deactivate the attachment system. They may express their anger towards their partners in relation to alternative issues or situations. Mikulincer (1998) found that avoidant individuals experienced physiological arousal in response to negative partner behaviour but used distancing strategies and attributed hostile intent regardless of evidence to the contrary.

Research has supported these proposed theoretical links between attachment, emotion regulation and interpersonal difficulties. A study by Gross and John (2003) found that attachment avoidance was correlated with emotional suppression, which seems consistent with Mikulincer and Shaver's proposal that individuals with high levels of attachment avoidance tend to use deactivating strategies to regulate their emotions. Emotional suppression was also associated with interpersonal difficulties. In contrast, the emotion regulation strategy of reappraisal was associated with sharing emotions with others, higher wellbeing and better interpersonal functioning. Although Gross and John did not report correlations between attachment and interpersonal difficulties, other studies have demonstrated a significant association between these variables (Bartholomew & Horowitz, 1991; Horowitz, Rosenberg, & Bartholomew, 1993). A recent study by Wei and colleagues examined emotion regulation as a mediating variable in the relationship between attachment and interpersonal difficulties (Wei, Vogel, Ku, & Zakalik, 2005). They found that the relationship between attachment anxiety and interpersonal difficulties was partially mediated by emotional reactivity, but not emotional cut-off. However, the

association between attachment avoidance and interpersonal difficulties was partially mediated by emotional cut-off, but not emotional reactivity. The authors concluded that their findings suggest that the relationship between attachment and interpersonal problems is not direct but mediated by psychological processes such as emotion regulation. The study extends the literature by proposing mechanisms or processes through which attachment may affect interpersonal functioning, and demonstrating that there are likely to be alternative processes involved in relation to the dimensions of attachment anxiety and avoidance.

Mallinckrodt, King and Coble (1998) explored the relationship between these variables within psychotherapy. They found that clients' ability to identify and communicate their emotional experiences mediated the relationship between early attachment experiences and the strength of their relationship with their therapist. Owens, Haddock and Berry (2012) examined client attachment, emotion regulation and working alliance within psychosis services. They found that client emotion regulation difficulties were associated with insecure attachment and poor alliance ratings. These studies indicate that attachment theory is a useful theory to understand alliance and that a positive therapeutic alliance may facilitate the development of emotion regulation. It is likely that therapists who are more attuned to their emotions may be better able to maintain the therapeutic alliance and facilitate emotion regulation with clients. At present, there are no published studies examining the relationship between therapist attachment, emotion regulation and alliance. However, the literature presented above, in addition to previous research demonstrating significant associations between therapist attachment and working alliance, suggests that therapist emotion regulation may mediate the relationship between therapist attachment and working alliance.

Whilst there has been a fairly well-documented association between attachment security and emotion regulation, it has been argued that other factors may be involved (Calkins, 2010), such as personality (Mayer & Stevens, 1994), social context (Campos, Campos, & Barrett, 1989; Zeman, & Garber, 1996) or cognitive appraisal style (Beck, 1976). Beck (1976) argued that cognitive appraisal processes were central to emotion regulation, and that dysfunctional cognitions would lead to negative emotional states such as anxiety or sadness. Some argue that emotion regulation is part of a wider self-regulatory system, involving physiological, behavioural, cognitive and attentional processes (Calkins, 2010). An individual's degree of control over these systems and their beliefs about perceived control is likely to relate to functional and dysfunctional emotion regulation (Block & Block, 1980).

1.5.6 Emotion regulation and psychotherapy.

Several clinical models emphasise the importance of the corrective emotional experience as a mechanism for therapeutic change (Bernier & Dozier, 2002). It has been proposed that emotion regulation should be an important focus for psychotherapy and two recent reviews have demonstrated that emotion regulation is a predictor of clinical outcomes (Greenberg & Pascual-Leone, 2006; Whelton, 2004). A therapist's ability to emotionally attune to their client's emotional experience is thought to play an important role in the development of the therapeutic alliance and in facilitating therapeutic change (Safran & Muran, 2000). Bowlby (1969, 1988) viewed the role of the therapist as providing a secure base for clients to express their emotions, as a mother provides a secure base for her child to explore the world. He proposed that secure attachment facilitates emotional communication

between mother and baby, which enables the infant to internalise a capacity to regulate emotions.

The term attunement was first used to describe the coordination between the behavioural, emotional and physiological responses of mothers and infants during interaction (Field, 1985; Stern, 1974). Successful attunement is seen to involve caregivers accurately reading an infant's signals and responding by providing appropriate levels of stimulation, which modulates arousal and establishes a sense of organisation. Within adult psychotherapy, attunement involves the therapist experiencing empathy for the client's position and then sensitively responding in a way that communicates a sense of connectedness, that their needs have been understood and perceived as important (Erskine, 1998). This will involve responding with reciprocal affect, such as compassion in response to the client's sadness, which will be reflected in the therapist's verbal and nonverbal behaviour. Attunement also requires the therapist to maintain the capacity to differentiate between the client's and their own emotional material, in order to remain emotionally present with the client.

Another construct that has been linked to emotional experience within therapy is that of transference and countertransference. Transference within psychotherapy involves the projection of unconscious emotions and beliefs, acquired from early relationships, onto the therapeutic relationship (Freud, 1940). Gelso and Hayes (1998) define countertransference as a therapist's reactions to a client that are based on their own attachment experiences and internal dynamics. Research has found individual differences in therapist experiences of countertransference (Ligiero & Gelso, 2002; Mohr et al., 2005; Rubino et al., 2000), and these differences have been linked to the interaction between therapist and client attachment styles. Whilst

avoidantly attached therapists experience higher levels of hostile countertransference in relation to anxiously attached clients, anxiously attached therapists experience higher levels of hostile countertransference in relation to avoidantly attached clients.

A therapist's ability to reflect on their own emotional experiences may provide important information about what the client is experiencing and help them to tolerate strong emotions evoked in them whilst responding in a sensitive manner (Safran & Muran, 2000).

Personality disorder is characterised by intense emotional experiences and many models of psychotherapy view emotion regulation as a focus for intervention. The mentalisation model of BPD places the attachment relationship as central and proposes that early disruption to attachment relationships leads to a hypersensitivity of the attachment system and impairments in mentalisation (Fonagy & Bateman, 2008). MBT for BPD aims to develop an individual's mentalising capacity, particularly when the attachment system is activated and under conditions of emotional arousal. Despite a lack of research in this area, it is likely that a therapist's capacity to mentalise under conditions of emotional arousal will affect a client's capacity to do so. Since clients are likely to express strong emotions within therapy, a therapist will require a relatively high mentalising capacity to be able to continue to think coherently about the client's material. A study by Diamond and colleagues (Diamond, Stovall-McClough, Clarkin & Levy, 2003) found that within psychotherapy for borderline personality disorder it was not only beneficial for the therapist to have a greater mentalising capacity than the client, but also for the therapist to avoid mentalising at a level that was too high for the client to access.

1.6 A Review of the Literature on Therapist Attachment Style and Psychotherapy

The following literature review summarises specific research exploring the impact of staff attachment style on the therapeutic process and alliance in adult mental health services, searching five databases for research investigating this relationship. A total of 15 studies are identified and discussed below.

1.6.1 Search strategy.

The following electronic databases were searched using the online NHS Evidence Library on the 1st March 2013: BNI (1985 to present), CINAHL (1981 to present), EMBASE (1980 to present), MEDLINE from PubMed (1950 to present), and PsychINFO (1806 to present). The following terms were searched for in the five databases:

1. 'attachment'[in title]
2. ("therapist*" OR "staff*" OR "worker*" OR "professional*" OR "psychologist*" OR "psychotherapist*" OR "clinician*") [in title]
3. 1 AND 2 [Limit to: Peer Reviewed Journal]

Since an initial search using the above terms within the title and abstract yielded too many results (over 4000 results across the five databases) the search was narrowed to articles containing these terms in the title only. The search was supplemented by reviewing the reference list from the papers meeting the inclusion criteria and three review articles (Adshead, 1998; Berry & Drake, 2010; Schuengel & van IJzendoorn, 2001) to ensure that narrowing the search did not miss any of the key papers in the area.

1.6.2 Selection criteria.

Studies were included in the review if they met the following criteria:

- Research published in peer-reviewed journals
- Research measuring attachment style in professional staff, caregivers or therapists
- Research using a measure of the therapeutic process or relationship

Studies were excluded according to the following criteria:

- Research conducted in physical health settings
- Research examining attachment relationships within families
- Research focusing on variables such as stress or coping which were not directly related to therapeutic process or outcomes
- Research examining staff attachment style only in the context of their clinical work, rather than in their personal relationships

The results of this search are summarised in Table 1. In total, the search identified 29 relevant studies and after duplicates were removed there were 13 papers included in the review. The review of the reference lists of these papers and three review articles yielded a further two papers (Tyrell, Dozier, Teague & Fallot, 1999; Mohr et al., 2005). The reviewed studies are summarised in Table 2.

1.6.3 Staff attachment style and the therapeutic relationship.

Black, Hardy, Turpin and Parry (2005) found that therapists who reported having secure attachment styles believed that they had stronger therapeutic alliances with their clients. Anxious attachment styles, however, were associated with increased

Table 1.
Literature Search Results

Database	Number of articles	Relevant to topic
BNI	5	0
CINAHL	16	1
EMBASE	46	9
MEDLINE	40	8
PsycINFO	95	11

difficulties in therapy. Attachment behaviour was assessed using the Attachment Style Questionnaire (Feeney, Noller, & Hanrahan, 1994) which encompasses a wide range of attachment dimensions relating to both present and past relationships. Maintaining such a broad focus is likely to reduce precision (Stein, Jacobs, Ferguson, Allen & Fonagy, 1998). However, despite these threats to internal validity, the study utilised multiple regression analyses to demonstrate that attachment dimensions explained a significant proportion of the variance in total alliance score compared with personality dimensions alone (a further 11.9%). This indicates that they were measuring a dimension of attachment which was somewhat independent of personality (Black et al., 2005). Therapeutic alliance was measured using the Agnew Relationship Measure (Agnew-Davies, Stiles, Hardy, Barkham & Shapiro, 1998) which was adapted for the present study enabling it to be used as a generalized measure of therapeutic alliance. This modification, focusing on alliance formation in relation to an 'average client', is problematic as alliance is likely to vary between different therapist-client dyads (Goodman, 2010).

A study by Tyrrell, Dozier, Teague and Fallot (1999) demonstrates the specificity of working alliance ratings to different therapist-client dyads. They found that case managers with less deactivating (or avoidant) attachment styles

Table 2.

Summary Table of Reviewed Studies

Study	Sample	Attachment measure	Measures of the therapeutic process	Key findings
<i>Studies focusing on the therapeutic relationship</i>				
Black, Hardy, Turpin & Parry (2005)	491 psychotherapists	ASQ	ARM; PCL	Therapist attachment styles accounted for a significant proportion of the variance in alliance ($F(5, 382) = 11.34, p < .001$) and problems in therapy ($F(7, 49) = 18.29, p < .001$).
Tyrrell, Dozier, Teague & Fallot (1999)	21 case managers; 54 clients with chronic mental health problems	AAI	WAI	Case managers with less deactivating attachment styles formed stronger alliances with clients with more deactivating attachment styles than with less deactivating clients ($r(25) = .53, p < .01$).
Petrowski, Nowacki, Pokorny & Buchheim (2011)	19 psychotherapists and 59 patients with anxiety disorders	AAI	HAQ	Clients with preoccupied or disorganized attachment styles rated their alliance with dismissing therapists more positively than their alliance with a preoccupied therapist ($z = 1.95, p < 0.05$).
Petrowski, Pokorny, Nowacki & Buchheim (2013)	22 psychotherapists; 429 patients	AAI	CATS	When therapists showed more preoccupied attachment characteristics, clients were more likely to demonstrate a preoccupied attachment to the therapist (AAI scale between therapist coefficient = -0.88; $p < .06$). When therapists showed more dismissing attachment characteristics, clients were more likely to demonstrate an avoidant or fearful attachment to the therapist (AAI scale between therapist coefficient = 0.94; $p < .03$).

Study	Sample	Attachment measure	Measures of the therapeutic process	Key findings
Schauenburg et al. (2010)	31 psychotherapists; 1,381 inpatient clients	AAI	HAQ; SCL-90-R; IIP	Higher therapist attachment security associated with better alliance ($r = .16$, $p < .05$) and outcome ($r = -.04$, $p < .10$) in clients with high levels of interpersonal problems pre-therapy.
Sauer, Lopez & Gormley (2003)	13 trainee therapists; 17 clients	AAIy	WAI	Positive correlation between therapist attachment anxiety and working alliance after the 1st session ($r = .40$, $p < .05$) but negative correlation between attachment anxiety and working alliance over time ($r = .69$, $p < .001$).
Dinger, Strack, Sachsse & Schauenburg (2009)	12 psychotherapists; 281 psychiatric inpatients	AAI	IES; IIP	High therapist preoccupation associated with low overall alliance ratings ($r = .09$, $p < .01$) and an inverted U shaped curve for patients with high scores on IIP ($r = .003$, $p < .05$).
Berry et al. (2008)	20 keyworkers; 26 clients	PAM	IIP; FMSS	Staff attachment avoidance associated with greater discrepancies in staff and client ratings of clients' interpersonal problems ($r = .51$, $p < .008$) and poorer staff psychological mindedness ($r = .55$, $p < .018$).
Ligiero & Gelso (2002)	50 trainee therapists; 46 supervisors	RQ	WAI; CT; ICB	Correlation between negative countertransference behaviour and ratings of working alliance (WAI-Therapist: $r = -.34$, $p < .01$; WAI-Supervisor: $r = -.58$, $p < .001$). Correlation between level of secure attachment and negative countertransference behaviour ($r = -.28$, $p < .05$). Discrepancy between therapist and supervisor ratings of bond component of WAI related to positive ($r = .37$, $p < .01$) and negative ($r = .41$, $p < .001$) countertransference behaviour.

Study	Sample	Attachment measure	Measures of the therapeutic process	Key Findings
<i>Studies focusing on the therapeutic process and clinical outcomes</i>				
Bruck, Winston, Aderholt & Muran (2006)	46 therapists; 46 clients	RSQ; INTREX	WAI; SEQ; SCL-90-R; IIP; PTC; TTC; GAS	Secure therapist attachment style correlated with working alliance ($r = .34$, $p < .05$), session depth ($r = .42$, $p < .05$) and client improvement on the IIP ($r = .54$, $p < .05$) and the TTC ($r = .47$, $p < .05$). Greater discrepancies between introject and attachment styles within the patient-therapist dyad associated with improvement in clinical outcome measures.
<i>Studies focusing on the therapeutic process and clinical outcomes</i>				
Romano, Janzen & Fitzpatrick (2009)	24 trainee therapists; 24 volunteer clients	ECR	PIRS	Avoidantly attached therapists intervened with more directive interventions when clients were high in attachment avoidance ($\beta = 5.08$, $p < .001$).
Dozier, Cue & Barnett (1994)	18 case managers; 27 clients	AAI	Interview with case managers. Coded for depth of intervention and dependency needs	Insecurely attached case managers attended more to preoccupied client's dependency needs ($r(14) = .80$, $p < .01$) and intervened in greater depth ($r(14) = .64$, $p < .05$) than with dismissing clients.

Study	Sample	Attachment measure	Measures of the therapeutic process	Key findings
Mohr, Gelso & Hill (2005)	27 trainee therapists; 93 volunteer clients; 12 supervisors	ECR	SEQ; CBM	<p>Therapist dismissing attachment associated with hostile countertransference behaviour ($t(24) = -3.19, p < .0125$).</p> <p>Significant interaction of client dismissing attachment and therapist fearful attachment on countertransference behaviour ($t(81) = -3.18, p < .0125$).</p> <p>Significant interaction of client dismissing attachment and therapist dismissing attachment on countertransference behaviour ($t(81) = -2.74, p < .0125$).</p>
Rubino, Barker, Roth & Fearon (2000)	77 trainee clinical psychologists	RSQ	Role play responses rated for response empathy and depth	<p>More anxiously attached therapists were rated as responding less empathically ($F(1,72) = 4.04, p < .048$)</p> <p>Non-significant effect on depth of interpretation.</p>
Leiper & Casares (2000)	196 clinical psychologists	RAQ; AAC; TEL	Clinical practice questionnaire	Compared to securely attached psychologists, insecurely attached psychologists reported more difficulties in clinical practice ($U = 2787.0; p < .05$), felt less supported ($U = 2808.5; p < .05$) and felt that work interfered more with their personal life ($U = 2644.0; p < .005$).

Note. ASQ = Attachment Style Questionnaire; ARM = Agnew Relationship Measure; PCL = Therapist Problem Checklist; AAI = Adult Attachment Interview; WAI = Working Alliance Inventory; HAQ = Helping Alliance Questionnaire; CATS = Client Attachment to Therapist Scale; SCL-90-R = Symptom Checklist 90-Revised; IIP = Inventory of Interpersonal Problems; AAIy = Adult Attachment Inventory; IES

=Inpatient Experience Scale; PAM = Psychosis Attachment Measure; FMSS = Five Minute Speech Sample; RQ = Relationship Questionnaire; CT = Countertransference Index; ICB = Inventory of Countertransference Behaviour; RSQ = Relationship Scale Questionnaire; INTREX = INTREX Introject Questionnaire; SEQ = Session Evaluation Questionnaire; PTC = Patient Rating of Target Complaints; TTC = Therapist Rating of Target Complaints; GAS = Global Assessment Scale; ECR = Experiences in Close Relationship Scale; PIRS = Psychodynamic Intervention Rating Scale; CBM = Countertransference Behaviour Measure; RAQ = Adult Reciprocal Attachment Questionnaire; AAC = Adult Attachment Categorization; TEL = Taxonomy of Early Loss

formed stronger alliances with clients with more deactivating attachment styles, and there was a non-significant trend for case managers with more deactivating styles to form stronger alliances with clients with less deactivating styles. The findings of this study suggest that there may be an optimum 'match' between staff and client attachment styles.

Petrowski, Nowacki, Pokorny and Buchheim (2011) also examined the match between the attachment styles of therapists and clients, and ratings of therapeutic alliance. Clients with symptoms of anxiety were randomly allocated to one of 19 therapists for psychological therapy. Consistent with Bowlby's theory that one of the tasks of psychological therapy is to challenge client's current interpersonal expectations, they found that clients with preoccupied or disorganised attachment styles rated their alliance with a dismissing therapist more positively than their alliance with a preoccupied therapist. The authors hypothesised that clients presenting with anxiety disorders may have experienced intrusive or unpredictable patterns of early caregiving, causing them to benefit from working with a less intrusive, more dismissing therapist who would encourage them to take on a more autonomous and less helpless approach to their difficulties.

In a similar study, Petrowski and colleagues (Petrowski, Pokorny, Nowacki & Buchheim, 2013) examined the relationship between therapist attachment and the security of the client's attachment to the therapist. Whilst they did not find a main effect of therapist attachment security on the client's attachment to the therapist, they found that the specific type of insecurity did have a significant effect. Specifically, when therapists showed more preoccupied attachment characteristics, clients were more likely to demonstrate a preoccupied

attachment to the therapist. When therapists showed more dismissing attachment characteristics, clients were more likely to demonstrate an avoidant or fearful attachment to the therapist. They concluded that therapists with preoccupied or dismissing attachment styles may be more likely to experience and re-enact their own attachment-related anxieties within their work, which may interfere with their capacity to manage the countertransference and maintain positive therapeutic relationships.

Schauenburg et al. (2010) examined the influence of therapist attachment representations on therapeutic outcomes and alliance. Whilst there were no main effects of therapist attachment, they identified an interaction, as the association between therapist attachment security and positive therapeutic outcomes was significant only for clients who presented with severe interpersonal problems. The authors proposed an explanation for these findings; that securely attached therapists were more flexible in their ability to adjust to working with clients with more severe difficulties, although this is only a speculative hypothesis due to the correlational nature of the data.

Sauer, Lopez and Gormley (2003) used hierarchical linear modelling to explore the contributions of client and therapist attachment styles to the development of working alliance over time. Whilst there was a positive correlation between therapist attachment anxiety and working alliance after the first session, there was a negative correlation between attachment anxiety and working alliance over time. Since working alliance was assessed by both therapists and clients, and was significantly associated at two of the three time points, the study is likely to have obtained a broader picture of the therapeutic

relationship than has been gained by studies which have relied on only one informant (Sauer et al., 2003).

Dinger, Strack, Sachsse and Schauenberg (2009) obtained similar findings as high therapist preoccupation was associated with low overall alliance ratings, and alliance ratings for clients with high levels of distress with preoccupied therapists produced a U shaped curve. The authors proposed that preoccupied therapists might be too involved in their own fears of abandonment that they become unable to manage the countertransference and are perceived as too intrusive or controlling, particularly by more distressed clients who might be more sensitive to this. Whilst the alliance questionnaire was designed to be used for an inpatient setting, which was appropriate for this sample, there have not been any validation studies of this questionnaire and so we are unsure of the measure's internal validity (Dinger et al., 2009).

Berry and colleagues (2008) used the discrepancy between staff and client ratings of client's interpersonal problems to assess staff sensitivity or responsiveness to client's difficulties. Higher staff attachment avoidance was associated with greater discrepancies between staff and client ratings of interpersonal problems and poorer psychological mindedness. There was also an association between lower staff attachment anxiety and more positive therapeutic relationships. The study sampled a range of qualified and unqualified professionals, in comparison to most previous research using therapists, allowing them to explore staff-client relationships outside of individual therapy.

Whilst Ligiero and Gelso (2002) did not find any significant correlations between therapist attachment style and ratings of working alliance, they

identified significant associations between attachment security and negative countertransference behaviour, and ratings of working alliance and negative countertransference behaviour. They also found that greater discrepancies between therapist and supervisor ratings of the therapeutic relationship were related to increased positive and negative countertransference behaviour. This finding, combined with those obtained by Berry and colleagues (2008), suggest that inaccurate perceptions of the therapeutic process or a lack of attunement between staff and client, is detrimental to the therapeutic process. However, since the sample only included trainee therapists and supervisors with relatively little experience, the generalisability of results is limited (Ligiero & Gelso, 2002).

1.6.4 Influence of staff attachment style on the therapeutic process and clinical outcomes.

Bruck, Winston, Aderholt and Muran (2006) found that secure therapist attachment style was associated with session depth, working alliance and client improvement on clinical measures. Moreover, greater discrepancies between personality and attachment styles in the therapist-client dyad were associated with better outcomes, which is consistent with the findings of Tyrrell and colleagues (1999) in relation to working alliance. Since many of the analyses explored associations between two measures completed by therapists, it is possible that significant associations could be inflated due to shared method variance (Bruck et al., 2006).

Romano, Janzen and Fitzpatrick (2009) found that when clients and therapists both scored highly on attachment avoidance, therapists used directive interventions more frequently. One explanation for these findings is that when

therapists and clients both have this attachment style it might be more likely that sessions become focused on the structure of therapy rather than the expression of emotion, as both parties have a tendency to devalue close relationships due to a fear of rejection (Romano et al., 2009). However, this focus may enable avoidantly attached clients to feel more comfortable within the therapeutic relationship, increasing the likelihood of engagement in therapy in the longer term. Unfortunately the external validity of this study is subject to criticism as they used volunteer clients who only exhibited mild levels of distress and less severe psychological difficulties than would be encountered in most mental health services. This is likely to have impacted on the extent that therapist's attachment systems were activated in their work, and so these findings could underestimate the role of attachment in the therapeutic process.

Dozier, Cue and Barnett (1994) found that insecurely attached case managers responded more to the dependency needs of clients who held preoccupied attachment styles than those who were dismissing, whilst the reverse was found for securely attached case managers. These findings indicate that securely attached case managers were better able to challenge client's existing working models, despite the personal discomfort this may cause (Goodman, 2010).

Mohr, Gelso and Hill (2005) measured countertransference behaviour in therapy sessions and found that therapist dismissing attachment style was associated with higher supervisor ratings of hostile countertransference behaviour. There were also interactions between client and therapist attachment styles, and countertransference behaviour was highest when client and therapist exhibited different insecure attachment styles. It is likely that in these situations,

clients and therapists' attachment systems are most likely to be activated due to large discrepancies in their management of emotion and interpersonal interactions (Goodman, 2010).

Rubino, Barker, Roth and Fearon (2000) explored the role of therapist and client attachment styles on responses to scenarios of therapeutic rupture. In a role-play scenario, more anxiously attached therapists responded less empathically to therapeutic ruptures, particularly with securely and fearfully attached clients. The authors proposed that anxiously attached therapists might find it particularly difficult to work through therapeutic ruptures as they are anxious about abandonment, due to their previous attachment experiences. However, the study used a hypothetical clinical scenario which might not have led to the activation of therapist's attachment systems and since they were not able to develop a relationship with the client over time, their responses may not be representative of their routine clinical work

Leiper and Casares (2000) used a postal survey to examine the association between attachment style and self-reported difficulties in clinical practice in a sample of 196 clinical psychologists. Insecurely attached psychologists reported more difficulties in clinical practice and felt that work interfered more with their personal life. However, the postal survey design could have confounded findings as psychologists with particular attachment styles might be more or less likely to respond (Goodman, 2010). Due to the relatively high rates of secure attachment styles, which might reflect the limitations of self-report measures, the three insecure attachment styles had to be combined in analyses into one category. This limits the hypotheses that could be explored.

1.6.5 Summary.

Overall, research investigating the impact of staff attachment styles on the therapeutic process indicates that staff attachment style influences a number of aspects of the therapeutic process including the working alliance (Black et al., 2005; Berry et al., 2008), countertransference behaviour (Mohr et al., 2006), therapist empathy (Rubino et al., 2000) and clinical outcomes (Bruck et al., 2006). Some studies found that the influence of staff attachment changed over time (Sauer et al., 2003), in relation to different levels of client distress (Schauenberg et al., 2010) and in interaction with client attachment style (Tyrrell et al., 1999; Romano et al., 2009; Dozier et al., 1994; Mohr et al., 2005). Three studies found that a greater discrepancy between staff and client attachment styles was associated with stronger working alliance and better outcomes (Bruck et al., 2006; Petrowski et al., 2011; Tyrrell et al., 1999). This fits with Bowlby's (1988) view of the clinician's role in disconfirming client's current emotional strategies and interpersonal expectations, in order to facilitate therapeutic change. However, Mohr and colleagues (2005) found that countertransference behaviour was highest when client and therapist exhibited different insecure attachment styles and high levels of countertransference have been linked with poorer working alliance (Ligiero & Gelso, 2002). Bruck et al. (2006) proposed that the discrepancy between client and therapist attachment styles would only be associated with positive outcomes if the therapist's attachment style was more secure than the client's. However, these inconsistencies indicate that research should be conducted to examine this association further.

There are a number of methodological limitations which threaten the internal and external validity of these studies, and thus restrict the conclusions

which can be drawn. A high proportion of the studies used trainee or inexperienced therapists and artificial therapeutic interactions, which limits the generalisability of findings. It is possible that therapists with insecure attachment styles could develop their ability to form positive therapeutic relationships and obtain positive clinical outcomes through experience and good supervision (Goodman, 2010). The design of studies using volunteer clients or those with less severe difficulties might be less likely to result in the activation of therapist attachment systems than in real therapeutic work with clients with chronic mental health problems (Romano et al., 2009).

The limitations of the studies reviewed highlight the need to conduct further research within naturalistic settings in order to examine the influence of therapist attachment style on ratings of working alliance, particularly amongst more experienced therapists. Since the impact of staff attachment style seems strongest when working with clients with more severe interpersonal difficulties, it seems important to explore this further in specialist services for clients with more complex presentations, such as personality disorder. There is currently no published research examining the impact of therapist attachment on working alliance within psychotherapy for personality disorder.

1.7 A Review of the Literature on Therapist Emotion Regulation and Psychotherapy

1.7.1 Search strategy.

A second search was conducted to identify research studies investigating the effects of therapist emotion regulation variables on the therapeutic process. Related terms such as 'affect regulation' and 'emotional intelligence' were used in order to ensure that relevant studies were identified. The following electronic

databases were searched using the online NHS Evidence Library on the 1st March 2013: BNI (1985 to present), CINAHL (1981 to present), EMBASE (1980 to present), MEDLINE from PubMed (1950 to present), and PsychINFO (1806 to present). The following terms were searched for in the five databases:

1. "therapist*" OR "staff*" OR "worker*" OR "professional*" OR "psychologist*" OR "psychotherapist*" OR "clinician*") [in title]
2. "emotion regulation" OR "affect regulation" OR "emotional intelligence" OR "emotional awareness" [in title]
3. 1 AND 2 [Limit to: Peer Reviewed Journal]

The search was supplemented by reviewing the reference list from the papers meeting the inclusion criteria.

1.7.2 Selection criteria.

Studies were included in the review if they met the following criteria:

- Research published in peer-reviewed journals
- Research measuring emotion regulation (or related variables) in professional staff, caregivers or therapists, and including a measure of the therapeutic process or relationship

Studies were excluded according to the following criteria:

- Research conducted in physical health settings, schools or family home setting

- Research focusing on variables such as stress or coping which were not directly related to therapeutic process or outcomes

The results of this search are summarised in Table 3. In total, the search identified 7 relevant studies and after duplicates were removed there were only 2 papers remaining. The review of the reference lists of these papers did not yield any further studies. Both papers stated that they were the first to investigate these variables within psychotherapy due to previous research being conducted in other settings and focusing on alternative therapist variables such as years of experience. However, the two papers relevant to the present study will be outlined below.

Table 3.

Literature Search Results

Database	Number of articles	Relevant to topic
BNI	4	0
CINAHL	14	1
EMBASE	18	2
MEDLINE	14	2
PsycINFO	30	2

1.7.3 Therapist emotion regulation and the psychotherapeutic process.

Kaplowitz, Safran and Muran (2011) explored the association between therapist emotional intelligence and a number of therapeutic outcome and process variables, such as working alliance and change in therapist and client rated symptoms. They used the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey & Caruso, 2002) which is based on a model of four areas of emotional intelligence: perceiving emotions, integrating emotions in

thought, understanding emotions and managing emotions. The study found that therapists with higher emotional intelligence gained better therapist-rated outcomes and lower drop-out rates. However, there was no relationship between therapist emotional intelligence and working alliance ratings. They attributed this non-significant result to the low sample size of 23 client-therapist dyads, as working alliance only predicted one of the outcome measures, which is inconsistent with the current evidence base. The fourth branch or subscale of the MSCEIT assesses emotion management and they found that the association between therapist scores on this branch and change in patient rated symptoms was approaching significance, indicating that a therapist's ability to manage their own emotions is likely to impact on their capacity to achieve positive therapeutic outcomes. This suggests that further research examining therapist's emotion management or emotion regulation using a larger sample size should be conducted.

Machado, Beutler and Greenberg (1999) compared the ability of therapists and non-therapists to recognise the quality and intensity of emotions expressed by clients in a video tape of a psychotherapy session, and explored whether this ability was associated with their personal awareness of emotions. They found that therapists were more accurate in identifying types of emotions than non-therapists but the groups did not differ in the accuracy of their ratings of emotional intensity. Therapists relied less on verbal cues than non-therapists, indicating that their experience or training enabled them to use non-verbal information to read emotions in others. Overall, participants' personal awareness of their own emotions was associated with their accuracy of identifying emotions displayed by clients in the therapy video tapes, indicating that therapist emotional

awareness may be closely linked to attunement or empathic responses within psychotherapy.

1.7.4 Summary.

Both of these studies indicate that psychological therapists' capacity to understand and manage their emotions may affect therapeutic alliance and outcomes. Since there are only two studies examining the impact of therapist emotion regulation variables within psychotherapy, there is clearly a need to conduct further research. Therapist emotion regulation is likely to be particularly influential within psychotherapy for personality disorder, where clients present with high levels of distress and risky behaviour which create therapeutic ruptures that need to be worked through. There are currently no studies examining therapist attachment style and emotion regulation within psychotherapy, despite the theoretical links between attachment, emotion and psychotherapy.

1.8 Rationale for the Present Study

Research has shown that some clinicians consistently gain better outcomes than others and are better able to facilitate the development of a therapeutic alliance (Luborsky, McLellan, Diguer, Woody & Seligman, 1997). However, there is a clear lack of research investigating the impact of therapist factors on the therapeutic alliance. Therapist attachment has often only been studied in small samples of relatively inexperienced therapists and has frequently only been included as a secondary factor (Elkin, 1999). Despite the fact that many therapeutic models emphasise the importance of the corrective emotional experience as a mechanism for therapeutic change (Bernier & Dozier, 2002),

there have only been a couple of published studies exploring the influence of therapist emotion regulation within psychotherapy.

There are currently no published studies examining the effects of therapist attachment style and emotion regulation on working alliance in relation to psychotherapy for personality disorder. Issues of engagement are particularly important when working with this client group given the high drop-out rate during treatment (Crawford et al., 2009) and the fact that those who drop-out are likely to have negative prognoses (McMurran, Huband, & Overton, 2010). This is not only at a great personal cost to the individuals concerned but also at a great financial cost to the NHS. Therapists working with this client group are likely to face high levels of distress and countertransference, and so their capacity to cope with these experiences is likely to affect their ability to respond in a sensitive and empathic way, in order to maintain their therapeutic relationship with the client. Clinical guidelines and therapeutic models for personality disorder acknowledge the importance of maintaining alliance and working through therapeutic ruptures which occur in response to risky behaviour or difficult interpersonal encounters. However, much of the emphasis has been on client factors that contribute to the therapy process, rather than therapist factors.

The present study is the first to explore the relationship between therapist attachment, emotion regulation and working alliance within specialist psychotherapy for personality disorder.

1.9 Research Questions and Hypotheses

1. To what extent does therapist attachment anxiety predict ratings of working alliance?

In line with the theories of Bowlby (1969, 1988), and Mikulincer and Shaver (Mikulincer & Shaver, 2003; Shaver & Mikulincer, 2002) that hypothesise a link between secure attachment, responsive caregiving and more adaptive interpersonal relationships, it was hypothesised that therapist attachment anxiety would be a significant predictor of working alliance. It was predicted that higher levels of attachment anxiety would be associated with poorer working alliance ratings. This hypothesis is also consistent with previous research demonstrating a significant association between therapist attachment and working alliance (Berry et al., 2008; Black et al., 2005; Bruck et al., 2006; Dinger et al., 2009).

2. To what extent does therapist attachment avoidance predict ratings of working alliance?

Based on the same justification as has been provided in relation to attachment anxiety, it was hypothesised that therapist attachment avoidance would be a significant predictor of working alliance. It was predicted that higher levels of attachment avoidance would be associated with poorer working alliance.

3. To what extent does therapist emotion regulation predict ratings of working alliance?

It was hypothesised that therapist emotion regulation would be a significant predictor of working alliance. This is based upon Bowlby's (1969, 1988) theory that the role of the therapist is to provide a secure base for clients to express their emotions. Numerous psychotherapy models also emphasise the importance of the corrective emotional experience and improving emotion regulation is a focal area of intervention within psychotherapy for personality

disorder. Since research has shown that emotion regulation difficulties are associated with interpersonal problems (Wei et al., 2005), it was predicted that higher levels of emotion regulation difficulties would be associated with lower ratings of working alliances. This hypothesis is also supported by research evidence demonstrating associations between therapist emotional intelligence and clinical outcomes (Kaplowitz et al., 2011) and personal awareness of emotions and accuracy of identifying client emotions during therapy (Machado et al., 1999).

4. If research questions one, two and three are met, does therapist emotion regulation mediate the relationship between attachment variables and working alliance?

It was hypothesised that therapist emotion regulation difficulties would mediate the relationship between therapist attachment and working alliance. This is based upon the theories of Bowlby (1969/1982), and Shaver and Mikulincer (Mikulincer & Shaver, 2003; Shaver & Mikulincer, 2002), who have proposed that attachment relationships are key for effective emotion regulation and that disruption to early attachment relationships results in interpersonal difficulties. This hypothesis is also based upon previous research that has found that emotion regulation mediated the relationship between attachment and interpersonal difficulties (Wei et al., 2005) and, within psychotherapy, client emotion regulation has been found to mediate the relationship between attachment and the strength of the therapeutic relationship (Mallinckrodt et al., 1998).

Chapter 2: Method

2.1 Design

The study used a survey design to explore the influence of therapist attachment style and emotion regulation on ratings of working alliance, at a single time point within individual therapy. Participants were recruited from seven NHS specialist community personality disorder services and a personality disorder conference, so that the relationship between the variables of interest could be investigated within the context of specialist psychotherapy for personality disorder. A survey design, using questionnaire measures, enabled the study to access a sufficient number of participants to achieve power, whilst utilising limited resources. The amount of contact between participants and the researcher was reduced compared to alternative research designs, which increased the anonymity of responses, serving to reduce social desirability effects. Since the study was relatively novel, and therefore exploratory in nature, the aim was to investigate the contribution of each of the predictor variables to ratings of working alliance, rather than attempting to rule out alternative factors or mechanisms contributing to working alliance.

2.2 Participants

2.2.1 Power analyses.

Previous research examining the relationship between therapist attachment style and working alliance using self-report measures has obtained medium effect sizes. For example, Black et al. (2005) explored the relationship between therapists' self-reported attachment styles and working alliance. They

found that there was a significant positive correlation between therapist attachment security and ratings of working alliance ($r = .44, p < .001$). Sauer et al. (2003) used hierarchical linear modelling to explore the contributions of client and therapist attachment styles to the development of working alliance over time. They found that there was a negative correlation between therapist attachment anxiety and working alliance over time ($r = .69, p < .001$).

Power calculations using G* Power (Faul, Erdfelder, Land, & Buchner, 2007) for linear multiple regression were conducted to estimate the minimum sample size required to achieve power. Using the r value from the paper by Black and colleagues (2005), which had the most similar design to the present study, the F^2 effect size was calculated to be 0.24. A calculation based upon power of .80, alpha of .05, with 3 predictor variables (attachment anxiety, attachment avoidance and emotion regulation total score) yielded an estimated minimum sample size of 50 participants.

2.2.2 Recruitment.

Participants were recruited from seven specialist community personality disorder services. These services were selected as they offered specialist assessment and intervention for clients with complex personality disorder presentations. Whilst some services accepted referrals for individuals with comorbid difficulties, such as substance misuse problems, their main remit was to work with clients with a primary diagnosis of personality disorder. Due to this, it was felt that there could be increased confidence that clients met diagnostic criteria for one of the personality disorder diagnoses. Most services worked primarily with individuals with cluster B or C diagnoses, and BPD is reported to

be the most common primary diagnosis (Crawford et al., 2007). The majority of service users are referred by secondary mental health services due to high levels of distress, social problems, risky behaviour and frequent utilisation of other services (Crawford et al., 2007). Staff working within each service received training and supervision for working with this client group. Since many previous studies investigating therapist attachment style and working alliance have used trainee or inexperienced therapists, staff were recruited from these specialist services in order to gain a more experienced therapist sample.

After ethical approval had been granted, contact was made via phone or email with the head of each service, and information given about the study. Subject to gaining their approval, an application was made to the relevant NHS Research and Development office. Once this application had been approved, potential participants were approached via email and at staff meetings by the primary researcher or the head of service.

An amendment was made to the original ethics application in order to gain permission to recruit at relevant conferences. This was granted by the Faculty of Medicine and Health Sciences Ethics Committee at the University of East Anglia and then permission to recruit at a specialist national personality disorder conference was gained from the conference organisers. It was assumed that staff attending the personality disorder conference had a particular interest in working with personality disorder and during recruitment care was taken to ensure that participants had a client on their caseload with a confirmed diagnosis of personality disorder. The majority of participants attending the conference were employed by specialist personality disorder services.

2.2.3 Inclusion criteria.

Participants were psychotherapists offering individual psychological therapy to clients with a diagnosis of personality disorder. They were employed by one of the seven specialist NHS community personality disorder services or those services represented at the personality disorder conference. Therapists came from various professional backgrounds, including nursing, psychology and occupational therapy, thus reflecting the full range of therapists employed by each service. They used a number of therapeutic models in their clinical work, including DBT, psychodynamic therapy and CBT. Therapists were asked to complete the alliance questionnaire measure in relation to one of their clients who had a primary diagnosis of personality disorder, were over 18 years of age, and who were currently being seen for individual psychological therapy.

2.2.4 Exclusion criteria.

Participants were excluded if they were not currently offering individual psychotherapy to clients with a firm diagnosis of personality disorder. They were told not to select a client with whom they were due to finish therapy during the following month as this would be likely to represent a significant threat to the alliance created over the duration of therapy, particularly within the personality disorder client group. Furthermore, previous research has shown that there is a significant association between client and therapist reports of the alliance earlier in therapy, but not at termination (Sauer et al., 2003).

2.3 Procedure

Psychological therapists employed by one of the seven specialist community personality disorder services were initially contacted via email by the head of service, or in person by the primary researcher or one of the named local collaborators at staff meetings. Therapists were given information about the study, in the form of a participant information sheet, and they were given the opportunity to ask further questions. When the primary researcher could not attend a staff meeting, participants were able to gain responses to their questions via email. Paper copies of the questionnaire measures were given to therapists, which they could complete and return anonymously, and they were also given details about how they could complete the questionnaires online through the website 'Survey Monkey' (www.surveymonkey.com). Additionally, the head of service distributed participant information sheets and details about how therapists could participate in the online version of the study via email.

Potential participants were approached at the conference by the primary researcher and given information about the study. Those who met the inclusion criteria and were interested in taking part in the study were given a questionnaire pack with paper copies of all the measures and the participant information sheet. The completed questionnaires could be returned anonymously, in a sealed envelope, to the conference administration staff or the primary researcher.

Therapists were asked to complete a demographic information sheet and three questionnaire measures. Two questionnaires (Experiences in Close Relationships Scale-Revised, Fraley, Waller & Brennan, 2000; Difficulties in Emotion Regulation Scale, Gratz & Roemer, 2004) asked therapists about their

personal relationships and emotional experiences. The other questionnaire (Working Alliance Inventory, Horvath & Greenberg, 1989) asked therapists to rate their therapeutic alliance with one of their clients. They were asked to select a client who had a primary diagnosis of personality disorder, and they were seeing for individual psychological therapy. They were told not to select a client with whom they were due to finish therapy during the following month. In order to reduce the likelihood that therapists would choose a client with whom they had a particularly strong alliance, therapists were asked to identify clients on their caseload who met the inclusion criteria and then select the client they saw most recently. Therapists were not asked for any personal information about the client they had selected. This enabled the study to measure therapists' perceptions of their current clinical work, compared to previous research assessing working alliance in relation to an average client, which is likely to increase the validity of the current design.

Therapists were informed that their completion of the questionnaires would be regarded as their consent to participate and that they would be able to withdraw from the study at any point prior to submitting their completed questionnaires. All participant responses were anonymous to the primary researcher throughout the process, and it was felt that this would serve to reduce social desirability effects.

Participants were asked to email the primary researcher separately if they wanted to be entered into a prize draw to win £25 of Amazon online shopping vouchers, so that their contact details could not be linked to their data. The primary researcher then randomly selected and contacted the four participants who each won £25 of Amazon vouchers.

2.4 Measures

2.4.1 Experiences in Close Relationships Scale-Revised (ECR-R; Fraley, Waller, & Brennan, 2000).

2.4.1.1 Overview.

The Experiences in Close Relationships Scale-Revised (ECR-R) is a 36-item self-report measure of adult attachment style in emotionally intimate relationships. The scale is a revised version of Brennan, Clark, and Shaver's (1998) Experiences in Close Relationships (ECR) questionnaire, which was derived from a factor analysis of other self-report measures of adult attachment. The ECR-R comprises two subscales; attachment anxiety and attachment avoidance, which are based on the dimensional model of adult attachment developed by Brennan et al. (1998). Each subscale consists of 18 items which are rated on a seven-point Likert scale ranging from *disagree strongly* to *agree strongly*.

The attachment anxiety subscale assesses fear of abandonment or rejection by others. The subscale includes items such as 'I'm afraid that I will lose my partner's love', 'my desire to be very close sometimes scares people away' and 'I worry that I won't measure up to other people'. The attachment avoidance subscale assesses discomfort with closeness or relying on significant others for support. Example items from the avoidance subscale are 'I prefer not to show a partner how I feel deep down', 'I find it difficult to allow myself to depend on romantic partners' and 'I get uncomfortable when a romantic partner wants to get very close'.

2.4.1.2 *Development of the measure.*

The original ECR (Brennan et al., 1998) was developed from a pool of 482 items sourced from a number of self-report attachment measures (e.g. Hazan & Shaver, 1987) and a literature search including published articles and conference papers. Once the authors had removed duplicate items, the final pool consisted of 323 items designed to assess 60 attachment constructs, including proximity-seeking, separation protest and self-reliance. A factor analysis revealed two underlying factors that corresponded to the avoidance and anxiety dimensions. Two 18-item scales were then constructed from the 36 items with the highest correlations with either of the two higher-order factors.

The scales were administered to undergraduate students and the authors were able to cluster participants into four groups, which corresponded to Bartholomew's (1990) four attachment types; secure, fearful, preoccupied and dismissing (Brennan et al., 1998). The secure cluster scored low on avoidance and anxiety, the fearful cluster scored high on avoidance and anxiety, the preoccupied cluster scored low on avoidance but high on anxiety, and the dismissing cluster scored high on avoidance but low on anxiety.

Fraley et al. (2000) conducted an Item Response Theory (IRT) analysis of four self-report measures of adult attachment, including the original ECR. They found that all of the measures demonstrated undesirable features from an IRT perspective. For example, most of the scales produced relatively low or unevenly distributed test information curves, showing that measurement precision would be either poor or differentially distributed across the trait range. However, since the ECR demonstrated the best psychometric properties, the authors developed the measure using IRT. Items with the best psychometric properties were

selected resulting in an increase in measurement precision from 50 per cent to 100 per cent, without needing to increase the number of items included. This development process resulted in the publication of the ECR-R.

2.4.1.3 Psychometric properties.

Sibley and Lui (2004) collected ECR-R data at two time periods, across a six-week duration. They performed a principal components exploratory factor analysis with varimax rotation and found that the ECR-R data from time one was best described by a two factor structure, which explained 51 per cent of the total variance. Both the anxiety and avoidance subscales demonstrated high internal reliability (Cronbach's $\alpha = 0.95$; $\alpha = 0.93$, respectively). They used confirmatory factor analysis to analyse the factor structure of their data at time two, and found that the data were best represented by a two-factor solution (Goodness of Fit = 0.92). This was also supported by Chi-Squared difference tests which showed that a two-factor solution fit the data better than a single-factor solution (difference in $\chi^2(1) = 1381.73, p < .001$) or a three-factor solution (difference in $\chi^2(1) = 47.78, p < .001$).

In terms of temporal stability, latent variable path analyses demonstrated that repeated measures of each subscale remained stable over a six-week time period, with 86 per cent of shared variance over time (Sibley & Lui, 2004).

In terms of construct validity, Fairchild and Finney (2006) found that there was a significant relationship between scores on the ECR-R anxiety and avoidance subscales and scores on the UCLA Loneliness Scale (Russell, 1996). They also found that there was a negative relationship between scores on the ECR-R anxiety and avoidance subscales and scores on a measure of social support (Social Provisions Scale, Cutrona & Russell, 1987).

Fraley (2010) has published some normative data for the ECR-R completed through his website. The sample consisted of 22,000 people, with a mean age of 24 ($SD = 10$). For the avoidance subscale the mean score for the sample was 2.93 ($SD = 1.18$) and for the anxiety subscale the mean score was 3.64 ($SD = 1.33$).

2.4.1.4 Justification for using the measure.

As outlined above, the ECR-R has demonstrated good psychometric properties, including high internal consistency, good temporal stability across a six-week time period and significant correlations with other questionnaire measures of related constructs. The ECR and ECR-R have been widely used, in a number of countries within Eastern and Western Europe, America and Asia. A recent meta-analysis of sex differences within romantic attachment (Del Giudice, 2011) reported that the ECR was the most frequently used measure; of the 112 studies reviewed, 94.6 per cent used the ECR or ECR-R. Therefore, the measure's psychometric properties and utility have been demonstrated across a variety of cultures and settings.

The ECR-R uses a dimensional model of attachment (Brennan et al., 1998) which is appropriate for a normal population sample where we would expect a high frequency of secure attachment patterns, and so power and precision to detect more subtle differences in attachment may be lost if a categorical rather than a continuous scale was used. However, it is important to acknowledge that, despite the improvement in the psychometric properties of the revised version of the measure, the ECR-R has shown increased measurement precision for the insecure end of the continuum rather than the secure end

(Fraley, 2010). This remains a limitation of the measure due to difficulties developing items which assess different aspects of secure attachment.

Some previous studies have used interview measures of attachment, such as the Adult Attachment Interview (George et al., 1985). However these are time-consuming to complete and require training to administer, which was felt to be impractical for a project of this nature. It was also anticipated that staff might be reluctant to participate in interviews that asked about early childhood experiences and this may have affected the recruitment process. Since there are a limited number of psychological therapists currently working within specialist personality disorder services, a questionnaire measure focusing on current relationships was chosen as this would present less burden to participants, and therefore maximise recruitment within a relatively small population.

Self-report measures of attachment have received criticism, such as the lack of correlation with interview measures and the requirement for a certain level of self-awareness on the part of participants. However, a recent meta-analytic review (Roisman et al., 2007) concluded that these different attachment measures have different uses, predict different outcomes and are used by different groups of researchers. They argued that there was a use for self-report measures which focused on explicit feelings and behaviours within current relationships, rather than implicit or unconscious cognitive representations of childhood relationships. In the present study, although some therapists may have insecure representations of their early childhood experiences, it is possible that personal awareness of these patterns could be developed through personal therapy or psychotherapy training, resulting in more secure beliefs about current relationships and affecting behaviour within therapy. The focus of the ECR-R on

beliefs about current relationships was, therefore, seen to be relevant to a therapist's interpersonal beliefs and behaviour, both within and outside of their work.

2.4.2 Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004).

2.4.2.1 Overview.

The DERS is a 36-item self-report measure designed to assess various difficulties in emotion regulation. The measure yields a total score of emotion dysregulation (ranging from 36 to 180) in addition to scores on six subscales: nonacceptance of emotional responses, difficulties engaging in goal-directed behaviour, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies and lack of emotional clarity. Items are rated on a five-point Likert scale according to the extent that each item is applicable to the participant, where 1 is *almost never* (0-10%), 2 is *sometimes* (11-35%), 3 is *about half the time* (36-65%), 4 is *most of the time* (66-90%), and 5 is *almost always* (91-100%). Higher scores are associated with a greater severity of emotional regulation difficulties.

The nonacceptance of emotional responses scale includes items reflecting a tendency to have negative secondary emotional responses to personal distress. It contains six items such as 'when I'm upset, I feel ashamed with myself for feeling that way'. The difficulties engaging in goal-directed behaviour scale describes difficulties accomplishing tasks or maintaining concentration when distressed. The scale includes five items such as 'when I'm upset, I have difficulty getting work done'. The impulse control difficulties scale comprises six items reflecting difficulties maintaining control of behaviour when

experiencing negative emotions, including ‘when I’m upset, I have difficulty controlling my behaviours’. The lack of emotional awareness scale reflects difficulties attending to one’s emotions and contains six items such as ‘when I’m upset, I acknowledge my emotions’, which is reverse scored. The limited access to emotion regulation strategies scale reflects a belief that negative emotions cannot be regulated once one is upset. The scale includes eight items such as ‘when I’m upset, it takes me a long time to feel better’. The lack of emotional clarity scale comprises five items referring to difficulties understanding emotions such as ‘I have difficulty making sense out of my feelings’.

2.4.2.2 Development of the measure.

The authors (Gratz & Roemer, 2004) initially identified 41 items for the measure, developed from conversations with experts from the field and using the structure of the Generalised Expectancy for Negative Mood Regulation Scale (NMR; Catanzaro & Mearns, 1990) as a template. These items were selected to encompass the following four domains of emotion regulation: ‘awareness and understanding of emotions’, ‘acceptance of emotions’, ‘the ability to engage in goal-directed behaviour, and refrain from impulsive behaviour when experiencing negative emotions’, and ‘access to emotion regulation strategies’. On the basis of preliminary analyses, one item was excluded as it demonstrated low correlations with the overall scale score and other items. A factor analysis using the scree test (see Floyd & Widaman, 1995) identified that retaining a six- or seven-factor solution would be most appropriate. Subsequent analyses, therefore, tested the utility of a six- or seven-factor solution, and it was found that a six-factor solution was most interpretable. Items were selected for the six factors based upon a minimum loading of .40 and items scoring below this were

excluded. Items that had high loadings on two factors were also excluded. A factor analysis using the remaining 36 items confirmed that all items had factor loadings of at least .40.

2.4.2.3 Psychometric properties.

The DERS total score and subscale scores have demonstrated high internal consistency within clinical (Fox, Axelrod, Paliwal, Sleeper, & Sinha, 2007; Gratz, Tull, Baruch, Bornovalova & Lejeuz, 2008;) and non-clinical populations (Gratz & Roemer, 2004; Johnson et al., 2008). For example, Gratz and Roemer (2004) calculated Cronbach's alpha of 0.93 for the DERS within a university student sample. High levels of internal consistency ($\alpha = .89$) have also been reported in research using the measure in a student population from a diverse range of ethnic backgrounds (Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006). The DERS has been translated into German and this version has also demonstrated good internal consistency, good temporal stability over a period of 2 weeks and significant correlations with similar measures (Ehring, Fischer, Schnulle, Bösterling & Tuschen-Caffier, 2008). In terms of test-retest reliability, Gratz and Roemer (2004) found that DERS total scores remained relatively stable over a 4-8 week time period ($\sigma = .88$, $p < .01$).

Research has found that scores on the DERS correlate with other measures of related constructs (Tull, Stipelman, Salters-Pedneault, & Gratz, 2009) and a range of behaviours thought to serve an emotion regulatory function such as binge-eating (Whiteside et al., 2007), self-harm (Gratz & Chapman, 2007) and substance misuse (Fox et al., 2007). The DERS has also demonstrated significant associations with behavioural and neurological measures of related constructs. For example, scores on the DERS subscale 'difficulties controlling

impulsive behaviours' has been found to be negatively associated with rostral anterior cingulate cortex activation among cocaine users (Li, Huang, Bhagwager, Milvojevic, & Sinha, 2008). Furthermore, Gratz and Roemer (2004) demonstrated that DERS accounted for a significant level of unique variance in clinical behaviours above that accounted for by an alternative measure of affect regulation, the Generalised Expectancy for Negative Mood Regulation Scale (Catanzaro & Mearns, 1990).

The DERS has also been found to be sensitive to clinical change within a sample of women with a diagnosis of BPD receiving an emotion regulation group intervention (Gratz & Gunderson, 2006) and a sample of substance users receiving inpatient treatment (Fox et al., 2007).

Whilst the DERS is a relatively new measure, the research literature is accruing evidence of standard scores within different clinical and non-clinical populations. Gratz and Tull (2010) suggest that nonclinical samples of students and community adults gain average total scores of 75-80, clinical samples of individuals with Generalised Anxiety Disorder average 95-100 and those with BPD average 125. However, a limitation of the measure is that it is still in its infancy and the original validation study (Gratz & Roemer, 2004) that informed the estimation of these nonclinical standard scores, included a high number of individuals who had experienced a history of domestic violence (24% of women and 17% of men), indicating that the sample might not be typical of a non-clinical population.

2.4.2.4 Justification for using the measure.

The DERS is a relatively new measure but, thus far, has demonstrated excellent psychometric properties within clinical and non-clinical populations. It

has been found to outperform an alternative measure of affect regulation, by accounting for a significant amount of unique variance in clinical behaviours (Gratz & Roemer, 2004). It has also been found to correlate with a range of behavioural variables, demonstrating the measure's validity. Based upon these strengths of the measure, it was felt that it would be appropriate to be used within the present study to investigate the research question regarding the extent that therapist emotion regulation predicts ratings of working alliance within psychotherapy for personality disorder.

2.4.3 Working Alliance Inventory (WAI; Horvath & Greenberg, 1989).

2.4.3.1 Overview.

The WAI is a self-report measure of the therapeutic alliance, which can be used across therapeutic modalities. The WAI has three subscales (Bond, Agreement on Tasks and Agreement on Goals) which correspond to the three dimensions described by Bordin (1979) in his theory of the therapeutic alliance. There are client, therapist and observer versions of the WAI, which all have 36 items in total. A shortened version of the WAI has also been developed which has 12 items (Tracey & Kokotovic, 1989). Items are rated on a seven-point scale ranging from 'never' to 'always' and higher scores are associated with stronger working alliance. The WAI includes a list of statements relating to a specific therapeutic alliance, and in the present study participants were instructed to rate each statement in relation to one of their clients meeting the inclusion criteria. Example items from the bond subscale include 'I feel uncomfortable with _____' and 'I am genuinely concerned for _____'s welfare'. The tasks subscale includes the items '_____ finds what we are doing in

therapy confusing' and 'the things that we are doing in therapy don't make much sense to _____. The goals subscale includes items such as 'I have some concerns about the outcome of these sessions' and 'I have doubts about what we are trying to accomplish in therapy'.

Since scores on these three subscales have been found to be highly correlated (Horvath & Greenberg, 1989), total WAI scores are often used through summing the scores on these three subscales. The WAI is one of the most widely used measures of the therapeutic alliance and has been validated in a variety of settings and populations (Elvins & Green, 2008).

2.4.3.2 Development of the measure.

Horvath and Greenberg (1989) initially developed a pool of 91 items from a content analysis of Bordin's three dimensions of the working alliance. Each item was reviewed by psychologists with different therapeutic orientations, in order to reduce issues of linguistic or conceptual bias. A review of the alliance literature identified seven experts in the field who were asked to evaluate items in terms of their relevance to the construct of working alliance. They were also asked to decide which of Bordin's (1979) three alliance dimensions each item referred to. A five-point Likert scale was used for this process, where 1 indicated that the item was not related to the alliance construct and 5 represented that the item was very relevant. Any items that received a mean rating of less than 4.0 were excluded. A percentage of agreement index (PA) was calculated for each item, in terms of its allocation to one of the three alliance dimensions, and those with less than 70 per cent PA were excluded. The remaining items were then rated by 21 registered psychologists using the same procedure. The remaining items were sorted into meaning clusters in terms of the similarity in content

between items. The final twelve items for each dimension of the measure were identified through selecting the items with the highest ratings within each meaning cluster. A client and a therapist version of the measure were developed from this final pool of items. The scale has undergone some minor adjustments in terms of clarifying the wording and extending the Likert scale from a five-point to a seven-point scale, based upon several validation studies conducted by the authors.

2.4.3.3 Psychometric properties.

A meta-analysis of 79 studies investigating the relationship between therapeutic alliance and outcome (Martin et al., 2000) reported that the WAI demonstrated excellent reliability across studies, with an average Cronbach's alpha of .90, inter-rater reliability of .92 and test-retest reliability of .73. Although the therapist version of the WAI had lower reliability indices than the client version, these were still within an acceptable range (e.g. Cronbach's $\alpha = .81$) and the differences between the reliability statistics were not found to be significant ($z = 1.70$, $p > .05$). Furthermore, Sauer et al. (2003) found significant correlations between client and therapist WAI ratings at the beginning ($r = .42$, $p < .05$) and middle of therapy ($r = .62$, $p < .05$).

The early validation studies conducted by the authors used client groups with various diagnoses undergoing psychotherapy from a range of therapeutic modalities (Horvath and Greenberg, 1989). They found that WAI total scores correlated with clinical outcomes on the Counselor Rating Form and the WAI Task subscale correlated with clinical improvement on the Tennessee Self-Concept Scale and the State-Trait Anxiety Inventory. The three subscales were

found to be highly correlated ($r = .69\text{-.92}$; Horvath & Greenberg, 1989), supporting the existence of one overriding alliance factor (Tracey & Kokotovic, 1989). Bordin's (1979) theory of the therapeutic alliance, upon which the measure is based, does not address this question regarding the independence of the three alliance dimensions. Due to this, subsequent research has tended to use total WAI total scores rather than subscale scores.

The WAI has been used in a number of outcome trials, many of which have controlled for prior patient characteristics, which are known to influence outcome (e.g. Klein et al., 2003). The WAI has been used in research across different therapeutic modalities and client groups (e.g. Raue, Castonguay & Goldfried, 1993), including within clinical trials for psychotherapy for personality disorder (e.g. Verheul et al., 2003).

2.4.3.4 Justification for using the measure.

The WAI is a widely used measure of the therapeutic alliance which has gained good validity and reliability data across a number of populations and settings. In a meta-analysis of 79 empirical studies (Martin et al., 2000), the authors reported that the WAI was used most frequently and they recommended the WAI as an appropriate choice for most research studies due to its applicability across different therapeutic modalities. This is particularly relevant in the present study, as therapists will be using a range of different specialist therapies for personality disorder. Although the client version of the shortened WAI has been well validated in various clinical populations, the therapist version does not have much validation data, and therefore the 36-item version will be used in the present study.

2.5 Ethical considerations

2.5.1 Ethical Approval.

Since the present study recruited NHS staff, but not NHS patients, ethical approval was gained from the University of East Anglia. Following this, contact was made with a number of specialist personality disorder services and subject to the approval of their head of service, applications were made to each of the NHS Research and Development departments for governance purposes. Two NHS trusts made a record of the study on their database but said that it did not need to go through the full research and development process. The remaining five NHS trusts approved the study through the standard research and development processes.

An amendment was made to the original ethics application in order to gain permission to recruit at conferences. Following approval from the ethics committee, permission to recruit at a specialist personality disorder conference was gained from the conference organisers.

2.5.2 Consent.

Information about the study was communicated in a clear, open and sensitive manner. Information sheets were distributed which outlined what participation in the study would involve and provided contact details for the primary researcher and the research supervisor, where further questions or queries could be directed. Participants were encouraged to take time to consider whether they wanted to participate. All participants were assured that their participation in the study was voluntary and they would be able to withdraw from

the study at any time, before submitting their data. If they chose to participate, they were informed at the beginning of the study that their completion of the questionnaire measures would be regarded as their consent.

2.5.3 Confidentiality.

Participants were not asked to provide their names or other personally identifiable information. The study collected limited demographic information, and participants were informed that they were able to choose which demographic information they felt comfortable to provide. Paper copies of completed questionnaires were stored securely in a locked cabinet. Electronic data collected online through the website www.surveymonkey.com could only be viewed by the primary researcher who held details for the online account. During data analysis, participant data were entered into electronic databases, and stored on the primary researcher's password protected personal computer and a USB device. Participants were informed that results from the study would be written up as part of the primary researcher's doctoral thesis which would be submitted to the University of East Anglia and that the research study may also be published at a later date.

2.5.4 Distress evoked during the study.

There was a small possibility that participants may have become distressed during the study. Participants were encouraged to seek support and withdraw from the study if they felt distressed. They were also encouraged to discuss any relevant issues within supervision. Participants were informed that if they wished to make a complaint regarding the research study they could do this through the research supervisor.

2.6 Planned Data Analytic Strategy

Prior to conducting further analyses in order to answer the primary research questions, the planned data analytic strategy was firstly to investigate the main effects of the demographic variables on working alliance. The demographic data were first examined to ascertain whether the assumptions of parametric testing had been met. The assumption of homogeneity of variance was tested through examining the Levene test statistics for each of the demographic variables, with non-significant results indicating that the assumption of homogeneity of variance had been met. Histograms and P-P plots were produced to ascertain whether the data of each demographic variable were normally distributed. If the values of kurtosis and skewness were considerably different from zero and when these values were converted to z -scores, they showed significant skewness and kurtosis, this indicated that the data were not normally distributed. It was planned that if any of these assumptions were violated, then transformation of the data would be considered or non-parametric tests would be undertaken. However, assuming that the assumptions of parametric testing were met, four one way ANOVAs were conducted to examine the main effects of the categorical demographic variables on working alliance (therapist gender, therapist professional background, type of therapy, frequency of therapy sessions). It was planned that four Pearson correlations would be conducted to examine the association between the continuous demographic variables (therapist age, years of experience working with personality disorder, years of therapy experience, length of therapy and time therapist had known the client) and working alliance. The relationship between the independent variables (total

scores on the attachment anxiety and attachment avoidance subscales of the ECR-R and total score on the DERS) were examined using pearson correlation.

The planned data analytic strategy was to explore the four main research questions using linear regression. Prior to conducting these analyses the data were examined to ascertain whether the assumptions of regression had been met. The assumption of independent errors was tested by referring to the Durbin Watson statistic, which Field (2009) states should not be less than 1 or greater than 3. Graphs of the standardised residuals against the standardised predicted values for each of the linear regressions were produced. A fairly random array of data points which are relatively symmetrical around zero, indicate that the assumptions of homoscedacity and linearity have been met. Normal P-P plots and histograms of the residuals were also produced. If the histograms of the residuals are fairly normally distributed and the data points on the normal P-P plots lie close to the line, this indicates that the residuals do not substantially deviate from normality. Field (2009) states that in a standard sample we would expect about 5 per cent of cases to have standardised residuals greater than ± 2 . The percentage of cases in the current sample with standardised residuals greater than ± 2 were examined to see whether this was within the expected range. If there were a large number of cases with standardised residuals outside of this range then further analyses could exclude these cases. Providing the assumptions of regression were met, a series of linear regressions were conducted to answer the following research questions.

1. To what extent does therapist attachment anxiety predict ratings of working alliance?

A linear regression was conducted with therapist total score on the attachment anxiety subscale of the ECR-R entered as the predictor variable and therapist total score on the WAI entered as the outcome variable.

2. To what extent does therapist attachment avoidance predict ratings of working alliance?

In order to answer the second research question, a linear regression was conducted with therapist total score on the attachment avoidance subscale of the ECR-R entered as the predictor variable and therapist total score on the WAI entered as the outcome variable.

3. To what extent does therapist emotion regulation predict ratings of working alliance?

A linear regression was conducted with therapist total score on the DERS entered as the predictor variable and therapist total score on the WAI entered as the outcome variable. The relationship between the six subscales of the DERS and working alliance was examined using pearson correlation. The correlation matrix was then examined to ascertain the strength and direction of each correlation, and whether any of the DERS subscales demonstrated significant correlations with working alliance.

4. If research questions one, two and three are met, does therapist emotion regulation mediate the relationship between attachment variables and working alliance?

If the statistical analyses regarding research questions one, two and three produced significant results, then tests of mediation were explored in order to address research question four. Two separate analyses were conducted, one analysis with therapist attachment anxiety as the predictor variable and another

analysis with therapist attachment avoidance as the predictor variable. The mediator variable was total DERS score and the outcome variable was total WAI score. According to Baron and Kenny (1986), the predictor variable should be correlated with the outcome variable and the proposed mediator variable. The mediator variable should also correlate with the outcome variable. Providing these correlations were significant, the relationship between the predictor variable (therapist attachment anxiety or attachment avoidance on the ECR-R) and the outcome variable (WAI total score) whilst controlling for the mediator variable (DERS total score) were examined through entering these variables into a regression model. If the relationship between therapist attachment and working alliance became non-significant with the inclusion of emotion regulation (DERS), this was interpreted as full mediation. If there was a significant decrease in the relationship between therapist attachment and working alliance with the inclusion of emotion regulation, but the relationship remained significant, this was interpreted as partial mediation.

Chapter 3: Results

3.1 Overview

This purpose of this chapter is to summarise the data collected and outline the results of the statistical analyses conducted to investigate the research questions. Descriptive demographic data will be presented for the sample, alongside inferential statistics examining whether any of the demographic variables are associated with the outcome variable, working alliance. The results of three linear regressions will be presented to investigate research questions 1-3. It will then be justified why tests of mediation are not deemed to be appropriate in relation to research question 4.

3.2 Missing Data

In total, 54 therapists participated in the study. Two participants did not complete over 50 per cent of items on the WAI. As this was the main outcome variable, the data of these two participants were excluded. Three further participants did not complete over 50 per cent of items on both the ECR and DERS, which are the main predictor variables, and so their data were excluded.

Of the 49 remaining participants, five participants did not complete the final 15 items on the DERS. The main reason for this appeared to be that participants did not turn over the final page of the questionnaire, despite all three questionnaires being printed on double-sided paper. One of these participants also did not complete the demographic information sheet. Due to these reasons, it was assumed that these five participants had not maintained sufficient motivation and attention whilst completing the questionnaires. Therefore, the data of these

participants were excluded, in order to maximise validity of the data and reliability of results. The final sample with complete data, therefore, consisted of 44 participants.

3.3 Demographic Characteristics

Demographic information was collected via a standard questionnaire. The average age of participants was 42.37 years, 14 were male and 28 were female, and two participants did not disclose their gender. Therapists were from a range of professional backgrounds including nursing, psychology and social work. Therapists had been working with clients with a diagnosis of personality disorder for a mean of 13.09 years and had a median of 5 years experience providing psychological therapy for this client group. Table 4 presents a summary of demographic information for the study sample.

Since therapists completed the Working Alliance Inventory in relation to their work with one particular client, they were asked to provide some further information about this period of therapy. Table 5 presents a summary of this information. Therapists were offering psychological therapy in a range of modalities including DBT, CBT and psychodynamic approaches. Therapists had known their client for a median of 12 months and had been seeing them for psychological therapy for a median of 6 months (range = 1-72 months). The majority of therapists were offering weekly therapy sessions (N = 36) but five were offering fortnightly sessions, and three did not answer this question.

Table 4

Therapist Demographic Characteristics Descriptive Data (N = 44)

	N (%)	Mean (SD)	Median (Range)
Age (years)		42.37 (10.81)	
Male	14 (31.82)		
Female	28 (63.64)		
Missing data	2 (4.55)		
Nursing	8 (18.18)		
Psychology	15 (34.09)		
Psychiatry	5 (11.36)		
Psychotherapy	2 (4.55)		
Occupational Therapy	3 (6.82)		
Social Work	4 (9.09)		
Art and Drama Therapy	2 (4.55)		
Missing data	5 (11.36)		
Experience working with personality disorder (years)		13.09 (8.26)	
Experience providing therapy for personality disorder (years)			5.00 (29.00)

3.4 Demographic Characteristics and Working Alliance

Prior to conducting parametric tests to examine whether any of the demographic variables were related to working alliance, the data were examined to ascertain whether any of the assumptions of parametric statistical analysis had been violated. For each of the demographic variables, the Levene test statistics were all non-significant, indicating that the assumption of homogeneity of variance had been met. An examination of the histograms and P-P plots demonstrated that most of the demographic variables were normally distributed and values of skewness and kurtosis were non-significant. However, three of

Table 5

Client and Therapy Descriptive Data (N = 44)

	N (%)	Mean (SD)	Median (Range)
CBT	13 (29.55)		
DBT	11 (25.00)		
CAT	1 (2.27)		
Psychodynamic	9 (20.45)		
ACT	1 (2.27)		
Eclectic	2 (4.55)		
Missing data	7 (15.91)		
Known client (months)		12.00 (71.00)	
Current length of therapy (months)		6.00 (71.00)	
Weekly sessions	36 (81.82)		
Fortnightly sessions	5 (11.36)		
Missing data	3 (6.82)		

the demographic variables (years providing therapy for personality disorder, time known client, length of therapy) showed significant skewness and kurtosis. A log transformation was, therefore, applied and the data were then inspected for normality. Following transformation, all three variables showed non-significant skewness and kurtosis and the normality plots showed evidence of a normal distribution.

Since the assumptions of parametric analysis had been met, four one way ANOVAs were conducted to examine whether there were significant group differences between different levels of the categorical demographic variables (therapist gender, therapist professional background, type of therapy, frequency of therapy sessions) on the outcome variable, WAI total scores. Only the three most common therapies (CBT, DBT and psychodynamic therapy) were included in the analysis as the other therapy groups did not have sufficient participants. It

was found that there were no between-group differences for each of the categorical demographic variables in terms of total WAI scores. All F and partial Eta squared values are displayed in Table 6.

Pearson correlations were conducted to examine the relationship between the continuous demographic variables (therapist age, years of experience working with personality disorder, years of therapy experience, length of therapy and time therapist had known the client) and WAI total scores. As can be seen in Table 7, none of the demographic variables were significantly correlated with WAI total scores.

Since none of the demographic variables were significantly related to working alliance scores, these variables were not considered in further analyses.

3.5 Exploration of variables.

The means and standard deviations for attachment anxiety, attachment avoidance, emotion regulation and working alliance are displayed in Table 8.

Table 6

Main Effect of Categorical Demographic Variables on WAI Total Scores

	$F (df)$	η^2
Therapist professional background	$F (2, 25) = .46$	0.04
Therapist gender	$F (1, 40) = .47$	0.01
Type of therapy	$F (2, 30) = 2.35$	0.14
Frequency of therapy sessions	$F (1, 39) = 1.10$	0.03

Table 7

Pearson Correlations between Continuous Demographic Variables and WAI Total Scores

	WAI total score
Age	.16
Experience working with personality disorder	.03
Experience providing therapy for personality disorder	-.19
Known client	-.01
Current length of therapy	.10

* Correlation is significant at the .05 level

Table 8

Descriptive Data for Main Variables

	Mean total score (SD)	Range
ECR-R attachment anxiety	47.95 (19.51)	18-104
ECR-R attachment avoidance	47.93 (16.31)	21-102
Total DERS	66.59 (18.05)	37-112
Total WAI	181.55 (28.43)	119-231

Table 9

Pearson Correlations between Main Predictor Variables

	ECR Attachment Anxiety	ECR Attachment Avoidance	DERS total score
ECR Attachment Anxiety	-	.50**	.55**
ECR Attachment Avoidance	.50**	-	.40*
DERS total score	.55**	.40*	-

* Correlation is significant at the .01 level; ** Correlation is significant at the .001 level

Before conducting further analyses to answer the main research questions, the relationship between the main predictor variables (attachment anxiety, attachment avoidance and emotion regulation) was explored using Pearson correlation. As can be seen in Table 9, almost all of these correlations were significant, indicating a high degree of association between these variables.

The attachment, emotion regulation and working alliance scores in the present study can be compared to those gained in previous research. The mean total score on the WAI in the present study was 181.55 (SD = 28.43, Range = 119-231). A study by Stiles et al. (2002) that assessed working alliance during time-limited psychotherapy for depression reported a mean item rating of 5.82 (SD = .68) for the bond subscale, 5.46 (SD = .85) for the tasks subscale and 5.28 (SD = .95) for the goals subscale. In comparison, the corresponding values in the present study were 5.24 (SD = .76) for the bond subscale, 4.99 (SD = .82) for the tasks subscale, and 4.90 (SD = .93) for the goals subscale. Another previous study comparing manualised psychological interventions for substance use (Fenton, Cecero, Nich, Frankforter & Carroll, 2001) reported a mean total item score of 5.11 (SD= .60). This compares with a mean total item score of 5.04 (SD= .79) for the present study.

Therapist attachment anxiety and avoidance was assessed by the ECR-R scale. The mean total scores were 47.95 (SD = 19.51; Range = 18-104) for attachment anxiety and 47.93 (SD = 16.31; Range = 21-102) for attachment avoidance. The mean item score on the 7-point Likert-scale was 2.66 (SD = 1.08) for attachment anxiety and 2.66 (SD = .91) for attachment avoidance. Fraley (2010) has published some normative data for the ECR-R completed through his website. The sample consisted of 22,000 people, with a mean age of 24 (SD =

10). For the anxiety subscale the mean item score was 3.64 (SD = 1.33) and for the avoidance subscale the mean score was 2.93 (SD = 1.18). A previous study using the ECR-R with trainee psychotherapists obtained mean item scores of 3.32 (SD=.88) for the anxiety subscale and 2.46 (SD = .85) for the avoidance subscale (Romano, Janzen & Fitzpatrick, 2009).

Therapist emotion regulation was measured by the DERS and the mean total score for the present sample was 66.59 (SD = 18.05; Range = 37-112). The DERS is a relatively new measure but Gratz and Tull (2010) suggest that nonclinical samples of students and community adults gain average total scores of 75-80, clinical samples of individuals with Generalised Anxiety Disorder average 95-100 and those with Borderline Personality Disorder average 125. In the present sample, 68% of participants' scores were within the range of between 48 and 85, which is what we'd expect for a community sample.

3.6 Research questions 1-4: Assessing the assumptions of regression

As outlined in the data analytic strategy subsection, linear regression was the planned analysis to investigate the main research questions regarding the extent to which each of the three therapist variables predict working alliance. Separate analyses for each of the predictor variables were employed due to the novel and exploratory nature of the study, focusing on exploring whether any of the predictor variables separately predict working alliance, rather than constructing models informed by previous research.

The data were first examined to ascertain whether the assumptions for regression had been met. The assumption of independent errors was tested by referring to the Durbin-Watson statistic, which Field (2009) states should not be

less than 1 or greater than 3. The Durbin-Watson statistic was 1.91 when attachment anxiety was entered as a predictor variable, 1.92 for attachment avoidance, and 1.78 for emotion regulation, which indicates that the assumption of independent errors had been met.

Another assumption of regression is that residuals are normally distributed. Graphs of the standardised residuals against the standardised predicted values for each of the linear regressions produced a fairly random array of data points which were relatively symmetrical around zero, indicating that the assumptions of homoscedacity and linearity had been met. Normal P-P plots and histogram of the residuals were also produced. The histograms of the residuals were fairly normally distributed and the data points on the normal P-P plots lay close to the line, indicating that the residuals did not substantially deviate from normality. There was a slight bowing on the P-P plot for the regression with emotion regulation as a predictor variable, but this seemed to be well within the realms of what is acceptable for linear regression. Field (2009) states that in a standard sample we would expect about 5 per cent of cases to have standardised residuals greater than ± 2 . In the current data set, when attachment anxiety and attachment avoidance were entered as predictor variables, there were two cases (4.55%) with standardised residuals just outside this range (< 2.24). When emotion regulation was entered as a predictor variable, there were three cases (6.82%) with standardised residuals just outside this range (< 2.47). This seemed to be close to what would be expected in a standard sample, but it was decided that the final analysis would also be run with these cases excluded.

3.7 Research Question 1: Attachment Anxiety as a Predictor of Working Alliance

Since the assumptions of regression were met, three linear regressions were conducted to assess the three main research questions. Table 10 summarises the results of the three regression analyses.

When attachment anxiety on the ECR was entered as a predictor variable and WAI total score was entered as an outcome variable, the regression found that attachment anxiety was not a significant predictor of working alliance ($p = .56$).

3.8 Research Question 2: Attachment Avoidance as a Predictor of Working Alliance

As can be seen in Table 10, the linear regression with attachment anxiety on the ECR entered as a predictor variable and WAI total score entered as an outcome variable found that attachment avoidance was not a significant predictor of working alliance ($p = .36$).

3.9 Research Question 3: Emotion Regulation as a predictor of Working Alliance

The linear regression with total emotion regulation score on the DERS entered as a predictor variable and WAI total score entered as an outcome variable found that therapist emotion regulation was a significant predictor of working alliance ($R^2 = .13, p = .02$). Pearson correlations of each subscale of the DERS with working alliance were also conducted. Since three subscales of the DERS were skewed (Non-acceptance of emotional responses, Impulse Control

Difficulties, Limited access to emotion regulation strategies) a log transformation was applied and following this these variables demonstrated a normal distribution. As can be seen in Table 11, five of the six subscales were significantly correlated with working alliance.

Since there were 3 cases (6.82%) with standardised residuals just outside the acceptable range (± 2), which is slightly above what we would expect in a standard sample, the regression was also run with these cases excluded. It was found that emotion regulation was a significant predictor of working alliance, with a greater proportion of variance in working alliance explained ($R^2 = .24, p = .001$).

3.10 Research Question 4: Emotion Regulation as a Mediator of the Relationship between Attachment Variables and Working Alliance

Mediational analyses can only be undertaken if the necessary assumptions (Baron & Kenny, 1986) are met. According to Baron and Kenny (1986), the predictor variable should be correlated with the outcome variable and the proposed mediator variable. The mediator variable should also correlate with the outcome variable. Finally, the effect of the predictor variable on the outcome variable whilst controlling for the mediator variable should be significantly reduced for partial mediation or zero for full mediation.

Research question 4 could not be investigated since neither of the attachment variables were correlated with working alliance. Therefore, further tests of mediation were abandoned.

3.11 Summary

In relation to the four main research questions, it was found that therapist attachment anxiety and attachment avoidance were not significant predictors of working alliance. However, therapist emotion regulation was found to be a significant predictor of working alliance. A number of parametric and non-parametric tests found that none of the demographic variables, related to the therapist or the period of therapy, were related to working alliance, indicating that these variables were not covariates.

Table 10

Predictors of WAI Total Scores

	B (SE)	Beta	95% CI for β		R^2	<i>P</i>
			Lower	Upper		
Constant	187.82 (11.58)		164.46	211.18		
ECR Attachment Anxiety	-.13 (.22)	-.09	-.58	.32	.01	.56
Constant	193.42 (13.46)		166.25	220.59		
ECR Attachment Avoidance	-.25 (.27)	-.14	-.79	.29	.02	.36
Constant	219.64 (15.62)		188.13	251.15		
DERS total score	-.57 (.23)	-.36	-1.03	-.12	.13	.02

Table 11

Pearson Correlations between DERS Subscales and WAI Total Scores

DERS subscales	WAI total score
Non-acceptance of emotional responses	-.32*
Difficulties engaging in goal directed behaviour	-.38**
Impulse control difficulties	-.34*
Lack of emotional awareness	-.13
Limited access to emotion regulation strategies	-.29*
Lack of emotional clarity	-.35*

* Correlation is significant at the .05 level; ** Correlation is significant at the .01 level

Chapter 4: Discussion

4.1 Overview

The present chapter will firstly consider the methodological strengths and weaknesses of the current study and will then discuss the main findings in relation to the research questions, relevant literature and existing research. Clinical implications of these findings and directions for further research will also be explored.

4.2 Study Strengths

A significant strength of the present study is that, to the author's knowledge, it is the first to investigate therapist attachment style, emotion regulation and working alliance within psychotherapy for personality disorder. There is currently a lack of research exploring factors that influence the alliance within psychotherapy for personality disorder, despite the fact that clinicians frequently experience difficulties developing and maintaining the therapeutic alliance when working with this client group, which limits the effectiveness of interventions. The present study is also one of the first studies to examine the concept of therapist emotion regulation within psychotherapy research, using a new measure of emotion regulation which encapsulates a broader picture of emotion regulation than previous measures whilst demonstrating promising psychometric properties.

Another area of strength is that the study recruited a sample of experienced psychotherapists, with an average of 12.43 years working with a personality disorder client group. Previous studies have often recruited trainee or

inexperienced therapists (Ligiero & Gelso, 2002; Mohr et al., 2005; Romano et al., 2009; Rubino et al., 2000; Sauer et al., 2003), limiting the generalisability of findings, and so the present study extends the research literature in this area.

Therapists were offering a range of psychotherapies, including DBT, CBT and psychodynamic therapy, and so results can be generalised to a range of different psychotherapies.

Arrangements were made for participants to return their responses anonymously, in order to allow them to be more honest about their personal experiences, which are reflected in the relatively wide range of responses on all three measures. Therapists were asked about their alliance with a particular client, who they were currently seeing for individual therapy, enabling the study to assess alliance within a current therapeutic relationship. Previous studies have often asked participants to rate their alliance with an average client or have used vignettes (Black et al., 2005; Rubino et al., 2000), and these methods may have limited the validity or reliability of data collected.

4.3 Study Limitations

One of the reasons that the study did not obtain significant associations between therapist attachment variables and working alliance could be due to the precision and sensitivity of the ECR-R attachment measure. Fraley (2010) acknowledges that the ECR-R does not possess as high measurement precision for the secure end of the continuum (low attachment anxiety or avoidance) as for the insecure end. However, since the measure was developed from a large pool of items from other well-known questionnaire measures, it is unlikely that other self-report attachment measures would perform differently. When the sample

distribution of ECR-R scores from the present study are compared with those reported elsewhere, it is noticeable that scores in the current study are slightly lower, reflecting lower levels of attachment anxiety and avoidance. However, the range is relatively large and the mean scores are within one standard deviation of those obtained in previous research. Similarly, with regards to the distribution of scores on the WAI and DERS, the mean scores are all within one standard deviation of those reported in previous research.

Another limitation of the present study is that the variables were assessed using self-report measures. Self-report measures require therapists to possess a certain level of personal insight, in order to recognise their attachment patterns and assess their capacity for emotion regulation (Judd & McClelland, 1998). Consequently, self-report measures are only able to assess the conscious elements of each construct, rather than the unconscious elements. Therapists may have felt anxious about admitting difficulty in these areas as this may threaten their beliefs about their clinical skills. Since the ECR-R asks about difficulties in relationships with romantic partners, therapists may have found it more anxiety-provoking to admit to having difficulties within this area than to admit to having more generalised difficulties regulating their emotions.

Since the alliance questionnaire was presented alongside the attachment and emotion regulation questionnaires, participants were able to speculate what the research questions might be, which may have biased participant responses. For instance, participants may have underreported their attachment and emotion regulation difficulties due to an assumption that the study was investigating whether therapists with these difficulties experienced greater problems within their clinical work. Since the presentation of the three questionnaires was the

same for all participants (WAI; ECR-R; DERS), concentration or fatigue may have influenced responding on the DERS to a greater extent than the earlier questionnaires. Further research with a larger sample could counterbalance the order of presentation of the different questionnaires and control for this in statistical analyses. Another possible limitation is that we are unsure whether participants followed the procedure of completing the WAI in relation to the client they had seen most recently. Since admitting difficulty within a therapeutic relationship may threaten a therapist's belief about their ability, some participants may have decided not to follow the procedure but instead selected a client with whom they had a particularly positive relationship. Therapists who felt that they had poor alliances with most of their clients, who may have also experienced high levels of attachment and emotion regulation difficulties, may have decided not to participate in the study altogether. Since questionnaires were returned anonymously and potential participants were approached via email, the study did not measure response rates for each service or collect demographic information for those who chose not to participate. Consequently we cannot draw conclusions about the representativeness of the sample. It is possible that some professional groups may have been more willing to participate, or individuals scoring particularly highly on the variables of interest may have been more or less likely to participate in the study.

It would have also been interesting to gain further information about the client which therapists selected, such as their personality disorder diagnosis. Previous studies have demonstrated that therapists experience difficulties working with clients with cluster B presentations, such as BPD (Gunderson, 2001). Research has shown that symptoms of interpersonal sensitivity, which is

high in cluster B presentations, are associated with poorer therapist and client rated alliance (Lingiardi, Filippucci & Baiocco, 2005). Interpersonal sensitivity may result in more frequent therapeutic ruptures, associated with high levels of distress, and a possibility of drop-up increasing the demands on the clinician to maintain alliance. However, obtaining further client information would be associated with ethical issues such as whether to gain client consent, which may require increased time and resources than was possible in the present study.

Although the estimated required sample size was reached for the full sample, after participants were excluded due to missing or incomplete data, the sample size was slightly below the figure produced by the power calculation. The low sample size increases the chances of making a type II error, through incorrectly rejecting the research hypothesis in favour of the null hypothesis due to a lack of statistical power. However, since the effect sizes of both attachment variables were extremely small, and lower than those obtained in previous research, it is unlikely that even if the sample was twice the size as the present sample, there would be sufficient power to detect a significant relationship between attachment and working alliance. An associated limitation is that 18% of participant responses were incomplete and so their data were excluded. This could indicate that some participants were not paying sufficient attention or maintaining motivation whilst completing questionnaires, which may cause their responses to be unreliable. Participants whose responses were incomplete may have scored particularly highly on the 'difficulties engaging in goal-directed behaviour' and 'impulse control difficulties' subscales of the DERS, or they could have scored highly on the two attachment dimensions. Bowlby (1980) described how childhood deprivation could lead to a lack of focus and

concentration and research has shown a link between early attachment experiences and development of executive functioning (Glaser, 2000). Since the majority of participants with incomplete responses did not complete the demographic information sheet, it was not possible to compare participants who completed the questionnaires with those whose responses were incomplete on the demographic variables. We are, therefore, unable to draw conclusions about whether excluding these participants has affected the representativeness of the sample. Since participants completed the questionnaires in an uncontrolled environment, which could have been a busy office space or conference room, this is likely to have influenced their ability to maintain concentration and they could have had concerns about colleagues catching sight of their responses. Participant concentration and motivation levels could also be influenced by a number of other factors, such as stress, time pressures or the emotional demands associated with completing the questionnaires.

Therapist emotion regulation only accounted for a small proportion of variation in alliance ratings, indicating that a number of other factors are involved. For example, client factors such as social adjustment (Beutler et al., 2004), problem severity (Kilmann et al., 1979) and expectations for therapy (Watson & Kalogerakos, 2010) may also be significant predictors of alliance in the present study. Alternative therapist factors such as personal qualities and use of techniques (Ackerman & Hilsenroth, 2001; 2003) or more dynamic factors such as responsiveness between the therapeutic dyad (Stiles, 2009) or the client's attachment to the therapist (Diamond et al., 2003) may also predict alliance. Since we did not assess these factors, we are unsure about the influence of these variables within the current sample.

A final limitation of the study is regarding shared method variance as all the measures were rated by therapists. It is possible that a third variable such as stress, burnout or personality may be operating in the relationship between emotion regulation and working alliance. However, the constructs of stress or burnout are commonly viewed as a state rather than a trait, and the DERS assesses an individual's emotion regulation patterns overall, as a more stable capacity, akin to a trait. Research has shown that DERS total scores remain relatively stable over a 4-8 week time period (Gratz & Roemer, 2004). Furthermore, if the results can be explained by factors relating to personality, such as highly neurotic participants over-reporting their difficulties, this does not explain why significant results were gained for emotion regulation and not the attachment measures.

4.4 Summary of Main Findings

The present study found that neither therapist attachment anxiety nor attachment avoidance were significant predictors of working alliance. However, therapist emotion regulation was a significant predictor of working alliance, explaining 13.2% of the variance in WAI total scores. Furthermore, five of the six subscales of the DERS were correlated with working alliance scores. A number of demographic variables were assessed related to the therapist (e.g. years of experience, age, gender) and the period of therapy (e.g. model of psychotherapy, duration and frequency of therapy). However, none of these demographic variables were related to working alliance. Since there was not found to be a significant relationship between the attachment variables and working alliance, the assumptions of mediational analysis were not met, and thus further analyses to assess the fourth research question were not undertaken.

There were significant correlations between the two attachment scales and emotion regulation, indicating a high degree of association between these constructs. The main findings relating to each research question are discussed below in relation to relevant literature and existing research.

4.5 Discussion of Main Findings in Relation to Relevant Literature and Existing Research

4.5.1 Discussion of non-significant findings.

1. To what extent does therapist attachment anxiety predict ratings of working alliance?
2. To what extent does therapist attachment avoidance predict ratings of working alliance?

The present study found that neither therapist attachment anxiety nor attachment avoidance were significant predictors of working alliance. As outlined in section 4.3, these non-significant findings related to the first two research questions, may be due to a number of factors, such as a lack of statistical power related to having a relatively small sample, the lack of measurement precision or sensitivity of the ECR-R, or the limitations associated with using self-report measures. Alternatively, there may not be a significant association between therapist attachment style and working alliance within psychotherapy for personality disorder. This is contrary to Bowlby's (1988) theory that securely attached individuals are better able to form healthy and supportive relationships than insecurely attached individuals, and that the therapeutic relationship is influenced by the client and therapist's internal working model of relationships.

The present findings are inconsistent with previous studies which have found a significant relationship between therapist attachment style and ratings of the therapeutic alliance (Berry et al., 2008; Black et al., 2005; Bruck et al., 2006; Dinger et al., 2009). However, these studies have used different measures of attachment and working alliance, and alternative samples and study designs, which could explain the differences in findings. For example, three studies used alternative self-report attachment measures (Berry et al., 2008; Black et al., 2005; Bruck et al., 2006) and Dinger et al. (2009) used an interview measure of attachment. These studies also recruited a range of different samples of mental health staff: Berry et al. (2008) recruited keyworkers working in a psychosis service; Bruck et al. (2006) recruited a sample of American psychiatrists, psychologists and social workers; and Dinger et al. (2009) recruited a small sample of psychotherapists working in an inpatient unit in Germany. All four of these studies used alternative measures of the working alliance and Black et al. (2005) adapted their alliance measure so that it became a measure of generalised alliance in relation to an 'average client'. These methodological differences may, therefore, explain why the present study failed to obtain significant results.

The present findings are, however, consistent with Ligiero and Gelso (2002) who also found that the relationship between therapist attachment and working alliance was non-significant. There may also be other unpublished studies which have failed to gain significant findings but are not available for review due to publication bias. As identified in the review of the literature regarding therapist attachment style and psychotherapy, some studies have not found main effects of therapist attachment but have found interaction effects. For example, four studies found that the effects of staff attachment interacted with

client attachment style (Tyrrell et al., 1999; Romano et al., 2009; Dozier et al., 1994; Mohr et al., 2005) and Sauer et al. (2003) found that the influence of staff attachment changed over time. Since Schauenberg et al. (2010) only gained significant associations between therapist attachment style and working alliance in relation to clients with high levels of interpersonal problems, it is surprising that we did not obtain significant results in a client group known to have severe interpersonal problems. The services recruited in the present study work with clients who engage in frequent risk-taking behaviour, enact difficult interpersonal dynamics and are seen for longer-term periods of therapy, which are likely to activate attachment behaviours. However, it is also possible that therapist attachment style may have interacted with client attachment style but due to a lack of resources the present study did not assess the contribution of client attachment style.

One explanation for the significant association between emotion regulation and working alliance, but non-significant association between attachment and working alliance, could be due to the fact that psychotherapy training may be more likely to produce change in therapists' relationship styles than in their emotion regulation capacities. Most psychotherapy training programmes offer teaching regarding developing and maintaining therapeutic relationships and, within supervision, therapists will have opportunities to reflect on relational dynamics. Through their training, therapists with more insecure patterns of relating may learn more about what constitutes healthy relationships, which enables them to make changes to their personal relationships, as well as their relationships with clients. Research has found that therapists who have progressed further through their psychotherapy training form stronger working

alliances with clients than therapists who are nearer the beginning of their training (Mallinckrodt & Nelson, 1991). Some psychotherapy training programmes include teaching on attending to emotion within therapy, but this emphasis will vary between different schools of psychotherapy. Similarly, personal therapy is a requirement of the CAT practitioner training and most schools of psychoanalytic therapy, but is not a component of CBT or DBT training. Research has supported the assumption that personal therapy is associated with change in attachment style (Travis, Blilwise, Binder, & Horne-Moyer, 2001). Since the current study did not ask therapists about whether they had undergone personal therapy, this could be a confounding variable.

4.5.2 Discussion of significant findings.

3. To what extent does therapist emotion regulation predict ratings of working alliance?

Therapist emotion regulation, measured by the DERS, was found to be a significant predictor of working alliance. It was found that 13.2% of the variance in working alliance was predicted by therapist emotion regulation, with higher levels of emotion dysregulation associated with lower working alliance. In addition, five of the six subscales of the DERS (non-acceptance of emotional responses, difficulties engaging in goal directed behaviour, impulse control difficulties, limited access to emotion regulation strategies, lack of emotional clarity) were significantly correlated with working alliance. It is unclear why there was not a significant correlation between scores on the lack of emotional awareness subscale of the DERS and working alliance. This was the only scale for which all items were positively phrased and reverse-scored, which could have affected participant responses, although mean scores on this subscale did not

appear to be significantly different from scores on the other subscales. However, the scale asks participants about their ability to acknowledge and pay attention to their feelings and therapists may have endorsed these items as they perceived this to be a key component of their work, regardless of whether this translated to their personal lives or whether they tended to pay attention to their feelings without prompting from others.

Bowlby (1988) proposed that sensitive caregivers would be able to regulate their behaviour to attune to the person being cared for and respond in a flexible and caring manner, resulting in a sense of security being established. Therefore, the association between emotion regulation and working alliance may be due to the fact that therapists who were better able to regulate their emotions had a greater capacity to remain attuned to the client, and avoid acting impulsively or in a way that might damage the alliance. The DERS may have assessed aspects of attachment behaviour which were easier for therapists to acknowledge than items on the ECR-R which required them to report difficulties within their romantic relationships. There were significant correlations between therapists' scores on the attachment and emotion regulation measures which indicate that there is a high degree of overlap between these constructs.

Bowlby (1977) refers to a style of caregiving associated with insecure attachment, known as compulsive caregiving, where the child focuses on meeting the needs of others and ignores their own. It has been suggested that levels of compulsive caregiving may be particularly high in the helping professions (Malan, 1979). Individuals who exhibit compulsive caregiving are likely to attempt to suppress their emotional experiences, and the present study found that higher scores on the 'non-acceptance of emotional responses' subscale was

correlated with poorer working alliance. The gestalt tradition see emotional avoidance as central to interpersonal difficulties (Perls, Hefferline, & Goodman, 1951) and previous research has found that emotional avoidance, rather than acceptance, has been associated with increased physiological arousal (Gross & Levenson, 1997). This state of increased arousal, which may be exacerbated when working with clients presenting in an extremely distressed state, is likely to make it more difficult to remain reflective and responsive to the needs of the client. According to the MBT model, anxiety inhibits mentalisation, and so therapists who experience increased arousal, due to their avoidance of their emotional experiences, may find it most difficult to maintain their capacity for mentalisation. The DBT model of psychotherapy involves therapists supporting clients to take a more accepting and mindful approach to their emotional experiences, and so therapists who find it difficult to be accepting of their own emotions may find it more difficult to support clients to make changes in this area.

The present finding regarding the association between therapist non-acceptance of emotional responses and working alliance suggests that therapist's discomfort with emotional experience is detrimental to the therapeutic process. This is supported by the results of one previous study which showed that in poor outcome cases therapists used more cognitive verbs during periods of high emotion (Anderson, Bein, Rinnell, & Strupp, 1999). Similarly, Pilerio (2004, as cited in Greenberg & Pascual-Leone, 2006) found that clients' feeling of emotional connectedness with their therapist was associated with positive outcomes. It is possible that therapists who avoid experiencing emotion may appear too aloof for clients to develop an emotional connection to, potentially

damaging the alliance and clinical outcomes. Within the personality disorder client group, therapists who appear particularly aloof may also evoke memories of neglect within clients which are likely to be associated with strong emotions and may create further ruptures.

According to Mikulincer and Shaver (2003), avoidantly-attached individuals are likely to engage in deactivating strategies which involve them denying their emotional needs and avoiding emotional intimacy within relationships. Therapists who scored highly on the 'non-acceptance of emotional responses' subscale of the DERS in the present study reported having poorer working alliances, perhaps due to the fact that they were less able to develop the emotional intimacy required to maintain a positive therapeutic relationship. Previous research has supported this hypothesis, showing that avoidantly-attached individuals experience physiological arousal in response to negative partner behaviour but use distancing strategies and attribute hostile intent regardless of evidence to the contrary (Mikulincer, 1998). It has also been shown that avoidantly-attached therapists exhibit higher levels of hostile countertransference behaviour, particularly when working with anxiously attached clients who express higher levels of distress (Mohr et al., 2005; Rubino et al., 2000). This response is likely to be particularly unhelpful within psychotherapy for personality disorder where clients may express intense negative feelings towards the therapist. These feelings are likely to provoke a distancing response from the therapist, which, if enacted, serves to reinforce the client's negative interpersonal beliefs and expectations.

In contrast, anxiously-attached individuals are thought to engage in hyperactivating strategies which are associated with chronic activation of the

attachment system and an over-reliance on others to regulate emotions (Mikulincer & Shaver, 2003). These individuals may score highly on the 'limited access to emotion regulation strategies', 'impulse control difficulties' and 'difficulties engaging in goal directed behaviour' subscales of the DERS, due to their difficulties managing their emotions without input from others. Therapists with these characteristics may find it difficult to work through the emotions associated with episodes of therapeutic rupture, due to their fears about separation and inability to regulate their emotions without the support of a close interpersonal partner (Mikulincer, 1998). They may internalise the client's criticism through becoming intensely self-critical, which is likely to make it increasingly difficult to maintain therapeutic boundaries, contain the client's distress and, over time, avoid burn-out. Schore (2003) states that, within therapy, distressed clients regain a sense of security through internalising a capacity to self-soothe from a protective other. If therapists do not possess sufficient capacity to self-soothe, and instead rely on external objects to regulate their emotions, it is unlikely that their clients will be able to internalise this capacity during therapy. Individuals with personality disorder lack an ability to self-soothe and instead act out their distress through behaviours such as self-harm or attacking others, and so increasing self-soothing is an important part of psychotherapy for this client group (Linehan, 1993). DBT explicitly teaches skills in self-soothing as a means of distress tolerance for individuals with BPD (Linehan, 1993).

The construct of mentalisation, upon which MBT for BPD is based, has developed from the attachment literature. Mentalisation is the capacity to understand human behaviour in terms of mental states and MBT aims to support

clients to develop their capacity for mentalisation, particularly under conditions of interpersonal anxiety (Fonagy & Bateman, 2008). According to mentalisation theory, secure attachment is associated with a capacity to reflect on and manage internal experiences and emotions. Research has shown that it is beneficial for therapists to maintain a mentalising capacity that is just ahead of the client's in order to promote therapeutic change (Diamond et al., 2003). Challenging the client's current ways of thinking whilst not stretching them beyond what they can tolerate, will also maintain a balance between developing the alliance and encouraging therapeutic gains. Since anxiety is seen to inhibit mentalisation, but anxiety is likely to be high within psychotherapy for personality disorder, therapists who struggle to regulate their own anxieties are likely to find it more difficult to maintain their reflective function during work with clients. Research has shown that individuals experiencing high levels of anxiety, exhibit abnormalities in neural structures that are associated with attachment and mentalisation (Strawn et al., 2013). This reduction in reflective function may affect the therapist's ability to maintain alliance.

A therapist's emotional responses to their clients, in the form of countertransference, can provide useful information about what the client is experiencing but if these feelings are acted out without being thoughtfully processed, there is the potential for unhealthy re-enactments (Sandler, 1976; Safran & Muran, 2000). Those therapists who scored highly on the 'impulse control difficulties' subscale, may be more likely to act on their countertransferrential responses and reinforce the client's negative interpersonal beliefs and expectations. Previous research has found a relationship between low emotional intelligence and poor impulse control (Schutte et al., 1998).

A therapist's ability to emotionally attune to their client's emotional experience is thought to play an important role in the development of the therapeutic alliance and in facilitating therapeutic change (Erskine, 1998; Safran & Muran, 2000). Within psychotherapy, attunement involves the therapist experiencing empathy for the client's position and then sensitively responding in a way that communicates a sense of connectedness, that their needs have been understood and perceived as important (Erskine, 1998). This will involve responding with reciprocal affect, such as compassion in response to the client's sadness, which will be reflected in the therapist's verbal and nonverbal behaviour. Attunement also requires the therapist to maintain the capacity to differentiate between the client's emotional material and their own, in order to remain emotionally present with the client (Erskine, 1998). In the present study, therapists who scored highly on the 'difficulties engaging in goal-directed behaviour' subscale may have developed a poorer working alliance, due to difficulties engaging with the client and working on the goals for therapy, whilst experiencing strong emotions. Those who scored highly on the 'lack of emotional clarity' subscale, reported difficulties making sense of their own emotional experiences. It is likely that this will affect their ability to make sense of the client's emotional experiences, empathise with the client's position and respond in a sensitive manner, particularly when experiencing negative emotions such as anger or anxiety.

Previous research has also linked emotion regulation difficulties to other aspects of well-being including social functioning, coping and problem solving (Haga et al., 2009; Kennedy-Moore & Watson, 1999; Mikulincer et al., 2003). Therapists in the current study who reported more emotion regulation difficulties

may have found it more difficult to support the client to engage in problem-solving, positive coping strategies and working towards therapeutic tasks and goals. Bordin (1979) identified working collaboratively on therapeutic tasks and goals, as two of the three aspects of the therapeutic alliance.

The present findings can also be understood in relation to theories of the therapeutic alliance. Clarkson's (1995) model of the therapeutic alliance describes four key elements: the transferential relationship; the reparative relationship; the person-to-person relationship; and the transpersonal relationship. Within the transferential relationship, a therapist's awareness of their internal experiences is likely to affect their ability to differentiate between the client's material and their own. Their ability to regulate their emotions, and avoid impulsively acting out their countertransferential responses, will also influence their ability to provide a reparative relationship which differs from clients' earlier experiences of criticism, abuse or neglect. A therapist's ability to accept and integrate different emotional experiences and offer sensitive and genuine expressions of their own emotional responses is likely to affect the person-to-person and transpersonal relationship.

The results of the present study can also be linked to Hardy, Cahill and Barkham's (2007) model of the development of the therapeutic relationship. The first stage of establishing a relationship involves the use of empathy and affirmation in order to facilitate engagement and engender hope. Empathy involves an individual being able to match their own emotional experiences to those of the client, which may well be related to their capacity to access their emotions, whilst engaging with the client. The second stage, developing the relationship, involves using exploration and feedback, which again requires the

therapist to have a capacity to engage and reflect upon their own and the client's emotional experiences. The final stage, maintaining a relationship, involves increasing a client's capacity to express their emotions. It is likely that therapists will need to feel sufficiently comfortable expressing emotions themselves, so that they can support clients to do the same. This will be particularly important during periods of rupture, when clients may express intense or painful feelings, which need to be worked through, rather than avoided, so that the therapeutic alliance can continue to develop. Mergenthaler (1996) found that episodes of therapy involving a combination of high emotional arousal and reflection on these emotions were associated with substantial therapeutic gains.

The findings of the present study also support and extend the sparse evidence-base of related research. A small pilot study by Kaplowitz et al. (2011) provided some preliminary evidence that therapist emotional intelligence is related to positive therapeutic outcomes. However, they did not find any significant associations between therapist emotional intelligence and working alliance, which the authors concluded was due to their small sample size ($N = 23$). Furthermore, the association between the 'emotion-management' aspect of emotional intelligence, which seems most similar to the construct of emotion regulation, and client outcomes was only approaching significance ($p = .09$). The present study recruited a sample which was twice as large, which may have enabled us to gain sufficient power to detect the relationship between therapist emotion regulation and working alliance. Another related study by Machado et al. (1999) found that participants' personal awareness of their own emotions was associated with their accuracy of identifying emotions displayed by clients in therapy video tapes. This indicates that therapist emotional awareness may be

closely linked to attunement or empathic responses within psychotherapy, which will support the development and maintenance of the working alliance. The present study extends the findings of Machado et al. (1999) to specialist clinical services for personality disorder and relates the construct of emotion regulation or emotional awareness to working alliance.

4.6 Clinical Implications

The findings of the present study emphasise the importance of therapists developing a capacity to regulate their own emotions in order to maintain therapeutic relationships with clients. This demonstrates the need for psychotherapy training programmes and mental health services to incorporate this into teaching, training and supervision. Clinical supervision should support therapists to reflect on the emotions evoked in them by their clinical work, rather than avoiding difficult emotions, and use these responses to inform the therapeutic work and progress towards therapeutic goals. Within DBT therapists practice mindfulness as part of group supervision and psychoanalytic supervision is likely to involve discussion of the countertransferential experiences of the therapist. Therapists should be encouraged to seek personal therapy, where they can further develop their capacity to engage with, understand and manage their emotional experiences. Since high levels of emotion dysregulation has been shown to be related to poorer working alliance, therapists who are experiencing high levels of stress or burnout, and are therefore struggling to regulate their emotions, should be offered higher levels of support. This is particularly important in personality disorder services as engagement problems commonly limit the effectiveness of interventions (Bennett et al., 2006) and clients who drop out, often due to poor alliances with staff, have negative prognoses

(McMurran, Huband, & Overton, 2010). Staff working in personality disorder services are likely to face high levels of distress on a regular basis (Cleary et al., 2002) and so they will require support to maintain sufficient capacity for emotion regulation, particularly at times of crisis or therapeutic rupture when client distress is likely to be highest and aggressive or self-injurious behaviour may be most severe, causing further strain to the therapeutic alliance.

Almost a third of therapists in the current study obtained emotion regulation difficulties scores within the clinical range, which is cause for concern and indicates that a large proportion of therapists may benefit from support in this area. The need to support this group of therapists is of crucial importance for a number of reasons. Firstly, the current study has demonstrated that therapist emotion regulation is a significant predictor of alliance and the alliance-outcome relationship has been well-documented (Horvath, Del Re, Flückiger, & Symonds, 2011). Therapist-rated alliance has also been shown to be a strong predictor of drop-out from psychotherapy within the personality disorder client group, above client-rated alliance or other factors (Lingiardi, Filippucci & Baiocco, 2005). Finally, drop out remains a common issue within personality disorder services and those who drop-out have been shown to have poor outcomes (McMurran, Huband, & Overton, 2010).

4.7 Directions for Further Research

Given the limited research examining therapist variables within psychotherapy for personality disorder, there are a number of areas to be explored in future research.

Firstly, it would be interesting to extend the findings of the present study through using the DERS in psychotherapy outcome research, to see whether therapist emotion regulation is a significant predictor of clinical outcomes as well as working alliance. Many models of psychotherapy emphasise the importance of emotion regulation and the corrective emotional experience. Coombs, Coleman and Jones (2002) demonstrated that higher levels of emotional exploration within therapy were related to more positive clinical outcomes. Since there is known to be a robust association between alliance and outcomes (Horvath et al., 2011), these findings combined with those of the present study suggest that therapist emotion regulation and emotional exploration within therapy may well mediate the relationship between alliance and outcome. However, further research could explore this hypothesis further.

Since there are high rates of dropout within personality disorder services and episodes of therapeutic ruptures are common, further research could assess therapist emotion regulation and alliance across time, to see whether therapists' emotion regulation capacity affects their ability to deal with therapeutic ruptures.

Since there were concerns that the non-significant finding regarding the relationship between therapist attachment and working alliance was due to methodological weaknesses, such as the limitations of the ECR-R and a low sample size, it would be interesting to replicate the research with a larger sample and an alternative measure of attachment. Client and observer assessments of alliance could also be used in order to reduce the influence of shared method variance, and explore the potential interaction between client and therapist attachment.

Some therapists in the present study will have had personal therapy as part of their training, which is likely to impact on their more unconscious relationship dynamics and their capacity to regulate their emotions. However, therapists were not asked about this, and so it would be useful in future research to control for this in analyses or examine this as a separate variable.

4.8 Conclusion

The present study explored therapist attachment style, emotion regulation and working alliance within psychotherapy for personality disorder. To the author's knowledge, this is the first study to investigate these variables within psychotherapy for personality disorder. In line with Bowlby's (1988) theory that the therapeutic relationship is influenced by the client and therapist's internal working model of relationships, it was hypothesised that therapist attachment anxiety and attachment avoidance would be significant predictors of working alliance. However, this hypothesis was not supported, as the association between therapist attachment and working alliance was not significant. A number of explanations for this non-significant finding have been discussed, including the insensitivity of the attachment measure, the limitations of using self-report attachment measures, and a lack of statistical power. Alternatively, the relationship between therapist attachment style and working alliance may have previously been overestimated, particularly since other studies have struggled to gain significant results (e.g. Ligiero & Gelso, 2002). There may also be unpublished studies that have gained non-significant results.

The second hypothesis regarding therapist emotion regulation was supported, as therapist emotion regulation was a significant predictor of working alliance. This finding is consistent with the view that sensitive caregivers are able

to regulate their behaviour to emotionally attune to the person being cared for and respond in a flexible and caring manner, resulting in a sense of security and alliance being established (Bowlby, 1988). Models of the therapeutic alliance recognise that the exploration and expression of emotion is an important aspect within the therapeutic alliance (Clarkson, 1995; Hardy et al., 2007), indicating that a therapist's capacity for emotion regulation may play a significant role. It has been acknowledged that this capacity will be particularly important within psychotherapy for personality disorder, when strong emotions are often experienced by clients and therapists, particularly at times of therapeutic rupture. Engagement problems commonly limit the effectiveness of interventions in personality disorder services (Bennett et al., 2006).

The relevance of the emotional experiences of the therapist has often been associated with psychodynamic schools of psychotherapy, as other models have emphasised the client's contribution over the contribution of the therapist. Although the main focus within cognitive therapy is not on emotional exploration, Aaron Beck, the father of cognitive therapy, acknowledges the importance of therapist emotion regulation for the therapeutic alliance: "To manage the limits of the therapeutic relationship effectively, and to use their personal reactions in the process of treatment, cognitive therapists must first be sensitive observers of their own thoughts, feelings, and beliefs" (Beck & Freeman, 1990, p.252).

This is the first study to establish a link between therapist emotion regulation and working alliance. Since therapist emotion regulation demonstrated a more robust relationship with working alliance than attachment measures, this suggests that emotion regulation more directly taps at the therapist factors which

impinge on the quality of the therapeutic relationship. This makes it potentially fertile ground for further study.

In summary, the current study opens up an exciting area for potential future research, with some clinical implications as to how therapists might be helped to improve their working alliance with clients. Previously, the quality of attachment has been highlighted as a crucial factor for therapeutic alliance and outcome, a finding that was not supported by the present study. This study instead presents a novel finding and very preliminary evidence for the importance of another factor, at least for those working within personality disorder services, which is the emotion regulation capacity of therapists. This would appear to be a worthy object for the attention of future research, with the clinical aims of improving outcome via alliance in therapy and of shaping support and training for therapists.

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Appendices

Appendix A

APPENDIX A1: Participant information sheet

APPENDIX A2: Demographic information sheet

Appendix A1: Participant Information Sheet

We would like to invite you to take part in a study exploring the influence of therapist characteristics on formation of therapeutic alliances within individual psychotherapy for individuals with a diagnosis of personality disorder. The study is being carried out by Sally Burt, a Trainee Clinical Psychologist from the University of East Anglia as part of her doctoral training. Before you decide whether you would like to take part, we would like to give you some information about what the study is about and what it would involve for you. Please feel free to contact Sally Burt if you have any further questions. Thank you for taking the time to find out more about the study.

What is the research study about?

The aim of the study is to explore how therapist characteristics influence the development of therapeutic alliances with clients who have a primary diagnosis of personality disorder.

What will happen during the study?

We are approaching psychological therapists working with clients with a primary diagnosis of personality disorder to take part in the study. If you are interested in participating we will invite you to complete three short questionnaires which should take approximately 20-30 minutes of your time. We will ask you to randomly select one of your clients who:

- Has a primary diagnosis of personality disorder
- You are seeing for individual psychological therapy
- You are not due to finish therapy within the next four weeks

We will not ask for any personal information about the client you have randomly selected.

Questionnaires and demographic information sheets will not ask for any names or personally identifiable information, therefore all responses will remain anonymous. We will regard completion of the questionnaires as your consent to participate.

Who can take part?

We are interested in approaching all psychological therapists working with service-users with a diagnosis of personality disorder within Cambridgeshire and Peterborough NHS Foundation Trust to take part in the study. Taking part in the study is completely voluntary. You will be able to withdraw from the study at any point without having to give a reason. We will not ask for your name or personal details so that all responses remain anonymous.

What are the benefits of taking part?

We understand that there is limited time for paperwork and participating in research at present but we hope that this study will contribute to the evidence-base regarding therapy with this client group. Participating in the research would also assist a trainee psychologist in completing their clinical training. Those who

participate in the research will be eligible to enter a prize draw to win £25 of Amazon online shopping vouchers.

What are the disadvantages of taking part?

We hope that taking part will be a positive experience. Participation in the study is completely voluntary and you would be able to withdraw from the study at any point if you did not want to continue. We would encourage you to seek support within supervision if you wish to discuss any issues arising from your participation in the study.

What happens if I want to drop-out of the study?

You may withdraw from the study at any time without giving any reason for this. Since all responses will be kept anonymous, we will not be able to remove your data once you have returned the questionnaires.

Will everything I say be kept confidential?

We will not ask for your name or any other personally identifiable information. All completed responses will be stored securely. If you wish to enter the prize draw you will be asked to email Sally Burt separately, to ensure that your questionnaire responses cannot be linked to you personally. Prize draw entry is voluntary.

What should I do if I'm not happy with anything to do with the study?

Please feel free to speak to Sally Burt or Dr Deirdre Williams (Research Supervisor, University of East Anglia) if you have any concerns on the contact details below. If you remain unhappy and wish to complain formally, you can do this by contacting Dr Deirdre Williams.

What will happen with the results of the study?

Results from the study will be written up into a doctoral thesis which will be submitted to the University of East Anglia and it is hoped that the report will also be suitable for publication. A summary of the main research findings will be available on request from Sally Burt.

Who has reviewed this study?

This study has been reviewed and approved by the Faculty of Medicine and Health Sciences Research Ethics Committee at the University of East Anglia.

Further information and contact details

If you are still interested in taking part in the study, you can either proceed to complete the questionnaires at www.surveymonkey.com or contact Sally Burt for paper copies of the questionnaires using the details below. If you require any further information about the study please contact Sally Burt.

Sally Burt (Trainee Clinical Psychologist): sally.r.burt@uea.ac.uk

Supervised by Dr Deirdre Williams (University of East Anglia):

Deirdre.Williams@uea.ac.uk

Appendix A2: Demographic Information Sheet

If you feel comfortable to do so, please complete the following information:

Age:

Gender (please circle): MALE FEMALE

Professional background (e.g. nursing, psychology):

.....

How many years experience do you have working with clients with a diagnosis of personality disorder?.....

How many years experience do you have providing individual psychological therapy for this client group?

In relation to the client you completed the questionnaire about:

What type of therapy are you offering this client?

How long have you known this client for?

How many months have you been doing individual therapy with this client?.....

How frequent are your sessions scheduled to be (e.g. on a weekly basis)?

.....

If you have any questions about the study please contact: Sally Burt.
Email: sally.r.burt@uea.ac.uk Thank you for your time in completing these questionnaires.

Appendix B

APPENDIX B1: Experiences in Close Relationships Scale-Revised (ECR-R;

Fraley, Waller, & Brennan, 2000)

APPENDIX B2: Difficulties in Emotion Regulation Scale (DERS; Gratz &

Roemer, 2004)

APPENDIX B3: Instructions for Working Alliance Inventory (WAI;

Horvath & Greenberg, 1989)

APPENDIX B4: Working Alliance Inventory (WAI; Horvath & Greenberg,

1989)

APPENDIX B1: Experiences in Close Relationships Scale-Revised (ECR-R);**Fraley, Waller, & Brennan, 2000)**

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

1	2	3	4	5	6	7
Strongly Disagree		Neutral/ Mixed			Strongly Agree	

- _____ 1. I'm afraid that I will lose my partner's love.
- _____ 2. It makes me mad that I don't get the affection and support I need from my partner.
- _____ 3. I often worry that my partner doesn't really love me.
- _____ 4. I worry that romantic partners won't care about me as much as I care about them.
- _____ 5. I find it relatively easy to get close to my partner.
- _____ 6. I find it easy to depend on romantic partners.
- _____ 7. I tell my partner just about everything.
- _____ 8. I find it difficult to allow myself to depend on romantic partners.
- _____ 9. I rarely worry about my partner leaving me.
- _____ 10. My romantic partner makes me doubt myself.
- _____ 11. I talk things over with my partner.
- _____ 12. I find that my partner(s) don't want to get as close as I would like.
- _____ 13. Sometimes romantic partners change their feelings about me for no apparent reason.
- _____ 14. My desire to be very close sometimes scares people away.
- _____ 15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.

- ____ 16. I often worry that my partner will not want to stay with me.
- ____ 17. It's easy for me to be affectionate with my partner.
- ____ 18. My partner only seems to notice me when I'm angry.
- ____ 19. I prefer not to show a partner how I feel deep down.
- ____ 20. I feel comfortable sharing my private thoughts and feelings with my partner.
- ____ 21. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
- ____ 22. I am very comfortable being close to romantic partners.
- ____ 23. I don't feel comfortable opening up to romantic partners.
- ____ 24. I prefer not to be too close to romantic partners.
- ____ 25. I get uncomfortable when a romantic partner wants to be very close.
- ____ 26. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
- ____ 27. It's not difficult for me to get close to my partner.
- ____ 28. I usually discuss my problems and concerns with my partner.
- ____ 29. It helps to turn to my romantic partner in times of need.
- ____ 30. When my partner is out of sight, I worry that he or she might become interested in someone else.
- ____ 31. I do not often worry about being abandoned.
- ____ 32. I am nervous when partners get too close to me.
- ____ 33. I feel comfortable depending on romantic partners.
- ____ 34. I worry a lot about my relationships.
- ____ 35. I worry that I won't measure up to other people.
- ____ 36. My partner really understands me and my needs.

APPENDIX B2: Difficulties in Emotion Regulation Scale (DERS; Gratz &**Roemer, 2004)**

Please rate how often the following items apply to you using the response categories:

1 = Almost never (0-10%)

2 = Sometimes (11-35%)

3 = About half the time (36-65%)

4 = Most of the time (66 – 90%)

5 = Almost always (91-100%)

- ____1. I am clear about my feelings.
- ____2. I pay attention to how I feel.
- ____3. I experience my emotions as overwhelming and out of control.
- ____4. I have no idea how I am feeling.
- ____5. I have difficulty making sense out of my feelings.
- ____6. I am attentive to my feelings.
- ____7. I know exactly how I am feeling.
- ____8. I care about what I am feeling.
- ____9. I am confused about how I feel.
- ____10. When I'm upset, I acknowledge my emotions.
- ____11. When I'm upset, I become angry with myself for feeling that way.
- ____12. When I'm upset, I become embarrassed for feeling that way.
- ____13. When I'm upset, I have difficulty getting work done.
- ____14. When I'm upset, I become out of control.
- ____15. When I'm upset, I believe that I will remain that way for a long time.
- ____16. When I'm upset, I believe that I'll end up feeling very depressed.

- ____ 17. When I'm upset, I believe that my feelings are valid and important.
- ____ 18. When I'm upset, I have difficulty focusing on other things.
- ____ 19. When I'm upset, I feel out of control.
- ____ 20. When I'm upset, I can still get things done.
- ____ 21. When I'm upset, I feel ashamed with myself for feeling that way.
- ____ 22. When I'm upset, I know that I can find a way to eventually feel better.
- ____ 23. When I'm upset, I feel like I am weak.
- ____ 24. When I'm upset, I feel like I can remain in control of my behaviour.
- ____ 25. When I'm upset, I feel guilty for feeling that way.
- ____ 26. When I'm upset, I have difficulty concentrating.
- ____ 27. When I'm upset, I have difficulty controlling my behaviour.
- ____ 28. When I'm upset, I believe there is nothing I can do to make myself feel better.
- ____ 29. When I'm upset, I become irritated with myself for feeling that way.
- ____ 30. When I'm upset, I start to feel very bad about myself.
- ____ 31. When I'm upset, I believe that wallowing in it is all I can do.
- ____ 32. When I'm upset, I lose control over my behaviour.
- ____ 33. When I'm upset, I have difficulty thinking about anything else.
- ____ 34. When I'm upset, I take time to figure out what I'm really feeling.
- ____ 35. When I'm upset, it takes me a long time to feel better.
- ____ 36. When I'm upset, my emotions feel overwhelming.

APPENDIX B3: Instructions for Working Alliance Inventory

Please complete the following questionnaire in relation to one of your clients who:

- Has a primary diagnosis of personality disorder
- Is over the age of 18
- You are seeing for individual psychological therapy
- You are not due to finish therapy within the next month

Since therapists are likely to have different relationships with different clients, and we would like to explore a broad range of experiences, please select the client that you saw **most recently** who meets the above criteria.

APPENDIX B4: Working Alliance Inventory (WAI; Horvath & Greenberg, 1989)

Alliance Questionnaire

The following sentences describe some of the different ways a person might think or feel about his or her client. As you read the sentences mentally insert the name of your client in place of _____ in the text.

Rate each statement according to the following seven point scale:

1 2 3 4 5 6 7
Never Rarely Occasionally Sometimes Often Very Often Always

If the statement describes the way you always feel (or think), write the number 7 in the box; if it never applies to you, write the number 1 in the box. Use the numbers in between to describe the variations between these extremes.

Work fast, your first impressions are the ones we would like to see.

1. I feel uncomfortable with _____.

2. _____ and I agree about the steps to be taken to improve his/her situation.

3. I have some concerns about the outcome of these sessions.

4. My client and I both feel confident about the usefulness of our current activity in therapy.

5. I feel I really understand _____.

6. _____ and I have a common perception of her/his goals.

7. _____ finds what we are doing in therapy confusing.

8. I believe _____ likes me.

9. I sense a need to clarify the purpose of our session(s) for _____.

10. I have some disagreements with _____ about the goals of these sessions.

11. I believe the time _____ and I are spending together is not spent efficiently

12. I have doubts about what we are trying to accomplish in therapy.

1 Never	2 Rarely	3 Occasionally	4 Sometimes	5 Often	6 Very Often	7 Always
------------	-------------	-------------------	----------------	------------	-----------------	-------------

13. I am clear and explicit about what _____'s responsibilities are in therapy.

14. The current goals of these sessions are important for _____.

15. I find what _____ and I are doing in therapy is unrelated to her/his current concerns.

16. I feel confident that the things we do in therapy will help _____ to accomplish the changes that he/she desires.

17. I am genuinely concerned for _____'s welfare.

18. I am clear as to what I expect _____ to do in these sessions.

19. _____ and I respect each other.

20. I feel that I am not totally honest about my feelings toward _____.

21. I am confident in my ability to help _____.

22. We are working towards mutually agreed upon goals.

23. I appreciate _____ as a person.

24. We agree on what is important for _____ to work on.

25. As a result of these sessions _____ is clearer as to how she/he might be able to change.

26. _____ and I have built a mutual trust.

27. _____ and I have different ideas on what his/her real problems are.

28. Our relationship is important to _____.

29. _____ has some fears that if she/he says or does the wrong things, I will stop working with him/her.

30. _____ and I have collaborated in setting goals for these session(s).

31. _____ is frustrated by what I am asking her/him to do in therapy.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

32. We have established a good understanding between us of the kind of changes that would be good for _____.

33. The things that we are doing in therapy don't make much sense to _____.

34. _____ doesn't know what to expect as the result of therapy.

35. _____ believes the way we are working with her/his problem is correct.

36. I respect _____ even when he/she does things that I do not approve of.

Appendix C

APPENDIX C1: Ethical Approval Letter from University of East Anglia

Faculty of Medicine and Health Sciences Research Ethics Committee

APPENDIX C2: Amendment to ethics application approval letter

APPENDIX C3: Research and development department approval letters

APPENDIX C1: Ethical Approval Letter from University of East Anglia

Faculty of Medicine and Health Sciences Research Ethics Committee

Faculty of Medicine and Health Sciences Research Ethics Committee



Sally Burt
Doctoral Programme in Clinical Psychology
Room 2.30
Elizabeth Fry Building
University of East Anglia
Norwich
NR4 7TJ

Research & Enterprise Services
West Office (Science Building)
University of East Anglia
Norwich Research Park
Norwich, NR4 7TJ

Telephone: +44 (0) 1603 591574
Fax: 01603 591550
Email: fmh.ethics@uea.ac.uk

Web: www.uea.ac.uk/researchandenterprise

17th August 2012

Dear Sally

Attachment styles, emotion regulation and working alliance in personality disorder services
Reference: 2011/2012-58

The amendments to your above proposal have been considered by the Chair of the Faculty Research Ethics Committee and we can confirm that your proposal has been approved.

Please could you ensure that any further amendments to either the protocol or documents submitted are notified to us in advance and also that any adverse events which occur during your project are reported to the Committee. Please could you also arrange to send us a report once your project is completed.

The Committee would like to wish you good luck with your project

Yours sincerely

A handwritten signature in blue ink that reads 'Yvonne Kirkham'.
Yvonne Kirkham
Project Officer

APPENDIX C2: Amendment to ethics application approval letter

APPENDIX C3: Research and development department approval letters



Bedford House, 3rd Floor
125-133 Camden High Street
London, NW1 0PE

Tel: 020 3317 3045
Fax: 020 7685 5788/5830
www.noclor.nhs.uk

13/11/2012

Miss Sally Burt
Elizabeth Fry Building,
Faculty of Medicine and Health Sciences
University of East Anglia
Norwich, Norfolk NR4 7TJ

Dear Miss Burt

I am pleased to confirm that the following study has now received R&D approval, and you may now start your research in the trust(s) identified below.

Study Title: Attachment styles, emotion regulation and working alliance in personality disorder services
R&D reference: 12MHS69
REC reference: N/A
Camden & Islington NHS Foundation Trust
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<i>If any information on this document is altered after the date of issue, this document will be deemed INVALID</i>

Yours sincerely,

Emmanuel Rollings-Kamara
Senior Research Governance Officer



Joint Research Management Office
 Queen Mary Innovation Centre
 5 Walden Street
 London
 E1 2EF

FINAL R&D APPROVAL

6 March 2013

Mr Tim Mold
 East London NHS FT
 Francis House
 760-762 Barking Road
 Plaistow, LONDON
 E13 9PJ

Tel: 020 7882 7260
 Fax: 020 7882 7276
 Email: Sponsorsrep@bartshealth.nhs.uk

Dear Mr. Mold,

Protocol: Attachment styles, emotion regulation and working alliance in personality disorder services

ReDA Ref: AF1301/2

I am pleased to inform you that the Joint Research Management Office for Barts Health NHS Trust and Queen Mary University of London has approved the above referenced study and in so doing has ensured that there is appropriate indemnity cover against any negligence that may occur during the course of your project, on behalf of East London Foundation Trust. Approved study documents are as follows:

Type	Version	Date
REC approval	UEA REC	17.08.12
Protocol	v.1	October 2012
Email to participants	v.1	October 2012
Participant Information Sheet	v.1	October 2012
Therapist Demographic Information Sheet	v.1	October 2012
Experiences in Close Relationships Inventory	v.1	October 2012
Difficulties in Emotion Regulation Scale	v.1	October 2012

Please note that all research within the NHS is subject to the Research Governance Framework for Health and Social Care, 2005. If you are unfamiliar with the standards contained in this document, or the BH and QMUL policies that reinforce them, you can obtain details from the Joint Research Management Office or go to:
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4108962

You must stay in touch with the Joint Research Management Office during the course of the research project, in particular:

- If there is a change of Principal Investigator
- When the project finishes
- If amendments are made, whether substantial or non-substantial

This is necessary to ensure that your R&D Approval and indemnity cover remain valid. Should any Serious Adverse Events (SAEs) or untoward events occur it is **essential** that you inform the Sponsor within 24 hours. If patients or staff are involved in an incident, you should also follow the Trust

Adverse Incident reporting procedure or contact the Risk Management Unit on 020 7480 4718.

We wish you all the best with your research, and if you need any help or assistance during its course, please do not hesitate to contact the Office.

Yours sincerely



Gerry Leonard, Head of Research Resources

Copy to: University of East Anglia

Providing Partnership Services in Bedfordshire,
Essex and Luton

Our Ref: GK/djt/147.1

16 January 2013



Research Governance
Disability Resource Centre
Poynters House, Poynters Road
Dunstable, Bedfordshire, LU5 4TP

Telephone: (01582) 709072
Fax: (01582) 709057

PRIVATE & CONFIDENTIAL

Sally Burt
Doctoral Programme in Clinical Psychology
Room 2.30
Elizabeth Fry Building
University of East Anglia
Norwich
NR4 7TJ

Chair: Lorraine Cabel
Chief Executive: Dr Patrick Geoghegan OBE

Dear Sally

Re: Attachment Styles, Emotion Regulation And Working Alliance In Personality Disorder Service

Thank you for submitting your research application to the South Essex Partnership University NHS Foundation Trust (SEPT).

The research governance group initially had some concerns about access to a sample of service users with the primary diagnosis of personality disorder who are engaged in weekly psychotherapy. We understand that the criteria for the study has now been extended to accommodate biweekly or monthly appointments. We expect that psychotherapists working in our Essex complex needs service will now meet your criteria. On the basis of the above, I am pleased to confirm that the research governance committee has approved your project. Your trust contact for the study will be Dr William Burbridge-James (Consultant Medical Psychotherapist).

In receiving this letter you are accepting that your study must be conducted in accordance with the research governance framework and in line with the Trust's policy on research conduct processes (CLPG19), health and safety and data protection guidelines. If you are unsure about your obligations in relation to these three areas, please contact me immediately. Throughout the course of your research you will be sent monitoring forms and audits. It is important that you fill these in and return them. A failure to do so may result in your approval being withdrawn.

Additionally, brief details of your project (title, aim and project lead), may be posted on our internal website to give other staff a flavour of the research currently taking place in the organisation. Details of research funded by pharmaceutical companies will not be added but all others may be used, unless you notify me of your objection.

If it should be necessary for any researchers to access SEPT, who are not current employees of SEPT, for the purposes of this research project, they will be required to have a Letter of Access issued beforehand. Please advise this office of any external researchers who may need a Letter of Access at your earliest convenience.

Cont'd

www.SEPT.nhs.uk



South Essex Partnership University **NHS**
NHS Foundation Trust

At the end of your study, please forward a copy of the final report to me, together with presentations or publications relating to the project so that I can keep an accurate record of the outcomes of research in our area.

We wish you every success for your study. Please do not hesitate to contact me if you require any further assistance during the project.

Best wishes.

Yours sincerely



Prof G A Kupshik
Joint Chair of Research Governance Approvals Group

Copy to: William Burbridge-James – Consultant Medical Psychotherapist



Hertfordshire Partnership **NHS**
NHS Foundation Trust

Miss Sally Burt
Elizabeth Fry Building
Faculty of Medicine and Health Sciences
University of East Anglia
Norwich
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NR4 7TJ

R&D Department
Department of Psychiatry
QEII Hospital
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AL7 4HQ

Tel. 01707 369058
Fax. 01707 365169
e-mail t.gale@herts.ac.uk

15th November 2012

Dear Miss Burt,

Research Study: Attachment styles & alliance in personality disorder

I have received the documentation in support of the above project. Following a review by the R&D Department, I am pleased to tell you that the study now has R&D approval on behalf of Hertfordshire Partnership NHS Foundation Trust.

Approval is given on the understanding that you will notify the R&D Office of any further amendments to the study design, that you will carry out the study as specified in the final version of the protocol, and that you will comply fully with the HPFT R&D Policy (copy sent by e-mail).

With kind regards

Tim Gale Ph.D.
Manager, Research and Development Department
Visiting Professor, Dept Psychology, UoH


Research and Development

Bevan House,
Kettering Parkway South,
Northamptonshire, NN15 6XR

Direct Dial: (01536) 480 314
Fax No: (01536) 480 333

Associate Medical Director: Dr Sean Scanlon

Head of Quality Support: Julie Hargreaves

R&D Manager: Stephen Zingwe

8th February 2013

Sally Burt, Trainee Clinical Psychologist
Elizabeth Fry Building, Faculty of Medicines and Health Sciences
University of East Anglia, Norwich,
Norfolk

Dear Sally

NHFT Ref: 178.13

Title: Attachment Styles & Alliance in Personality Disorder

Project Status: Approved

End Date: 1st December 2013

I am pleased to confirm that with effect from the date of this letter, the above named study has been approved;

All documents received by this office have been reviewed and form part of the approval. The documents received and approved are as follows:

Document Title	Version	Date	REC Approval
Insurance and Indemnity letter		24/08/12	N/A
University of East Anglia Ethics approval		17/08/12	N/A
UEA Ethics amendment letter		01/08/13	N/A
Email to participants	1	October 2012	N/A
Questionnaires			
Consent forms			

Please be aware that any changes to these documents after approval may constitute an amendment. The process of approval for amendments should be followed. Failure to do so may invalidate the approval of the study at this trust.

We are aware that undertaking research in the NHS comes with a range of regulatory responsibilities. Attached to this letter is a reminder of your responsibilities during the course of the research. Please ensure that you and the research team are familiar with and understand the roles and responsibilities both collectively and individually.

You are required to submit an annual progress report to the R&D Office and to the Research Ethics Committee.

The R&D Office is keen to support research, researchers and to facilitate approval. If you have any questions regarding this, or other research you wish to undertake in the Trust, please contact this office.

We wish you every success with your research.

Yours sincerely



Stephen Zingwe
Research and Development Manager

CC:

Encs: Researcher Information Sheet

Please note that some of the documents may not apply to your study.

Appendix D

APPENDIX D1: Normality Plots for Demographic Data not requiring Transformation

APPENDIX D2: Skewness and Kurtosis Values for Demographic Data not requiring Transformation

APPENDIX D3: Normality Plots for Demographic Data after Transformation

APPENDIX D4: Skewness and Kurtosis Values for Demographic Data after Transformation

APPENDIX D5: Normality Plots for Residuals of Primary Variables Included in Regression Analyses

APPENDIX D6: Normality Plots for DERS Subscales

APPENDIX D7: Skewness and Kurtosis Values for DERS Subscales

APPENDIX D1: Normality Plots for Demographic Data not requiring transformation

Figure A1 Gender = Female

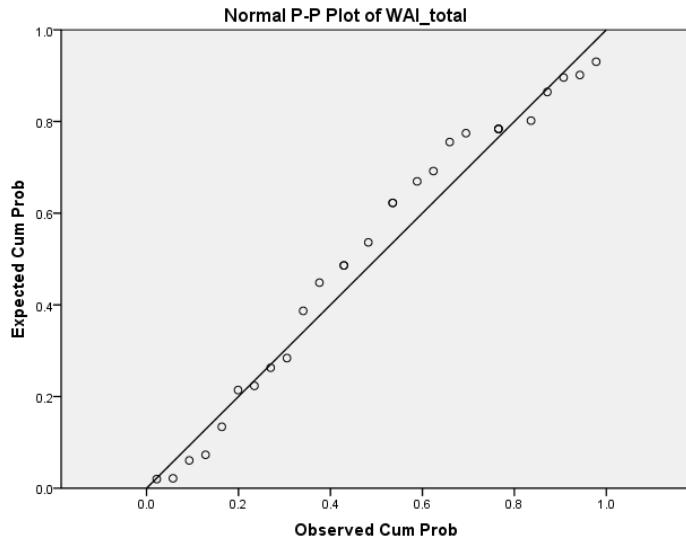


Figure A2 Gender = Male



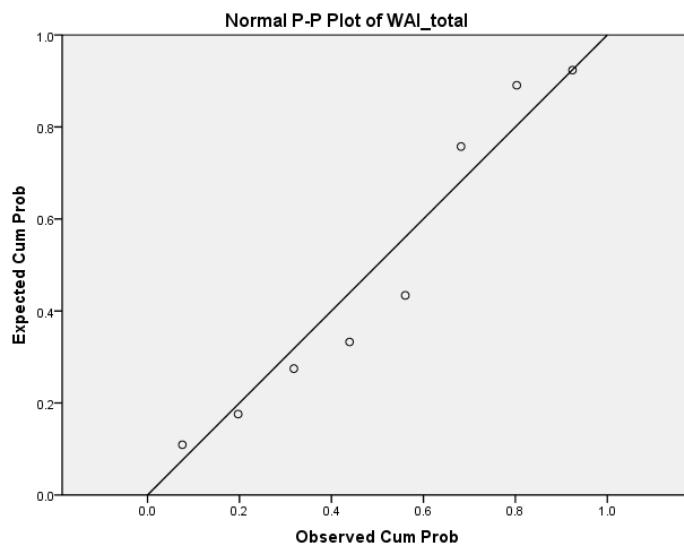
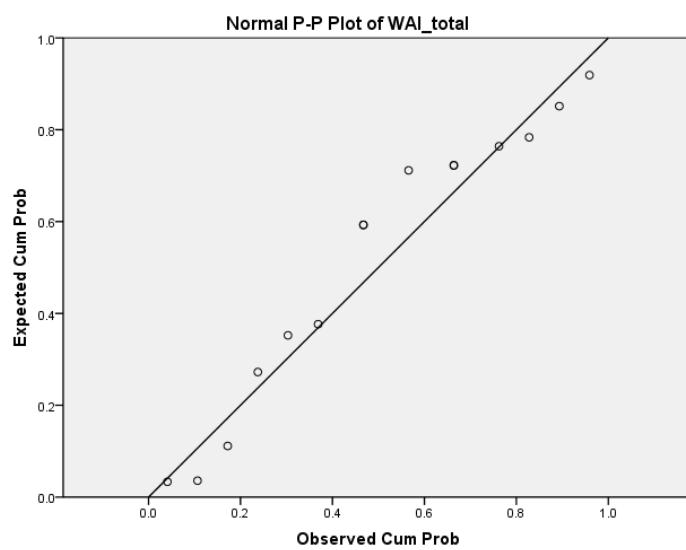
Figure A3 Professional background = Nursing**Figure A4** Professional background = Psychology

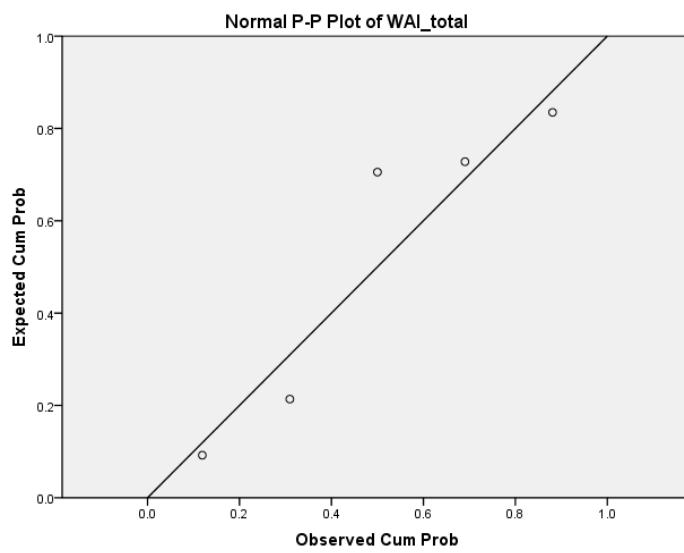
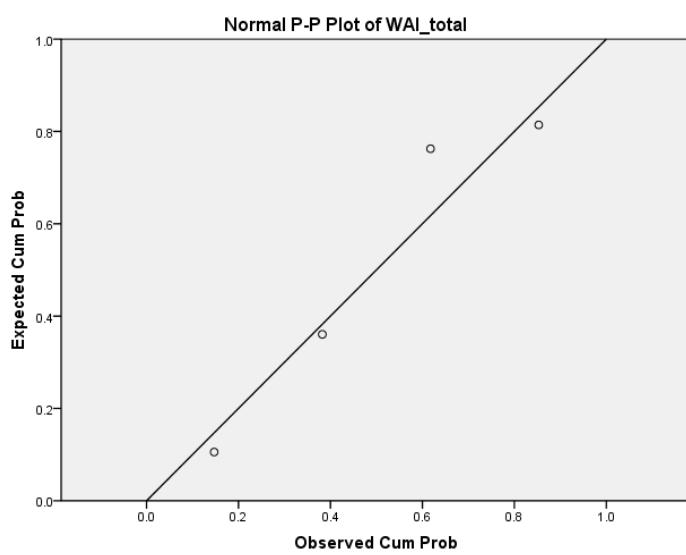
Figure A5 Professional background = Psychiatry**Figure A6** Professional background = Social Work

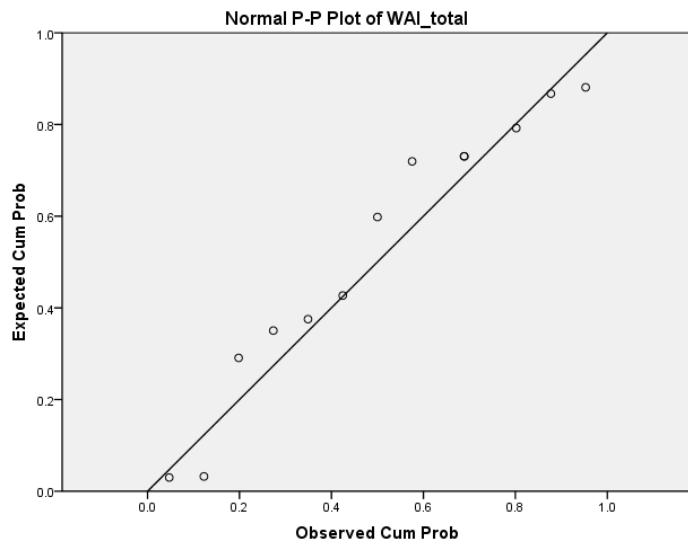
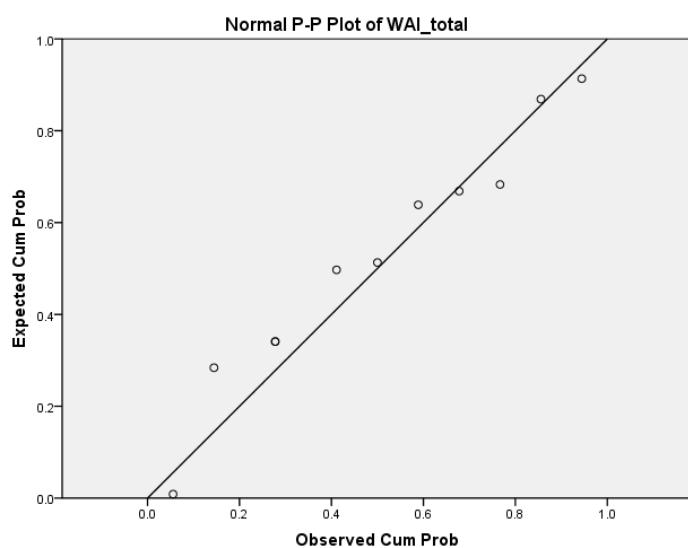
Figure A7 Therapy model = CBT**Figure A8** Therapy model = DBT

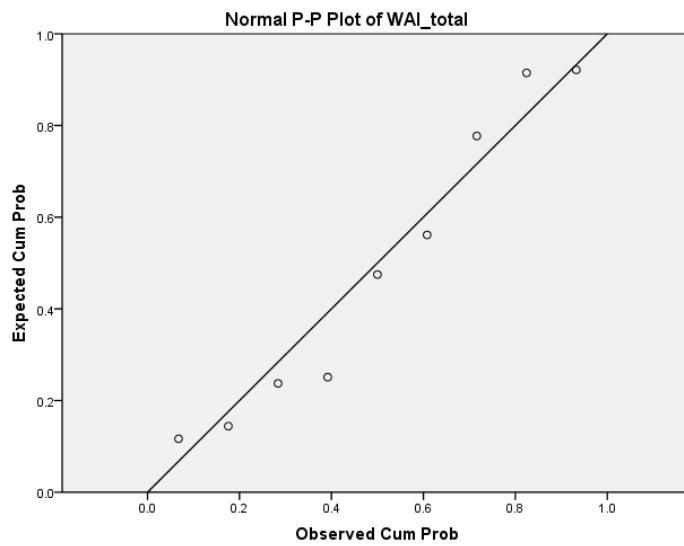
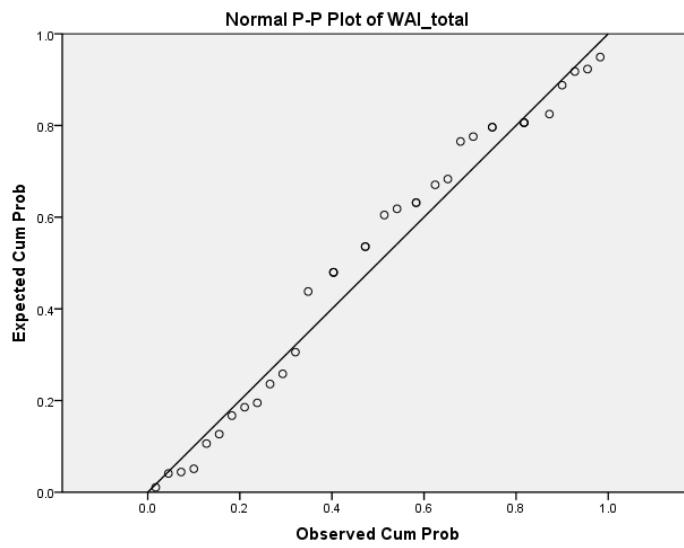
Figure A9 Therapy model = Psychodynamic**Figure A10** Frequency of sessions = Weekly

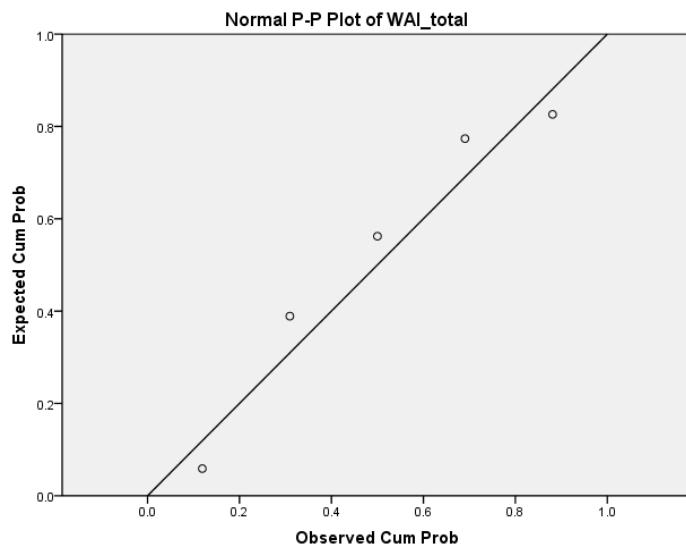
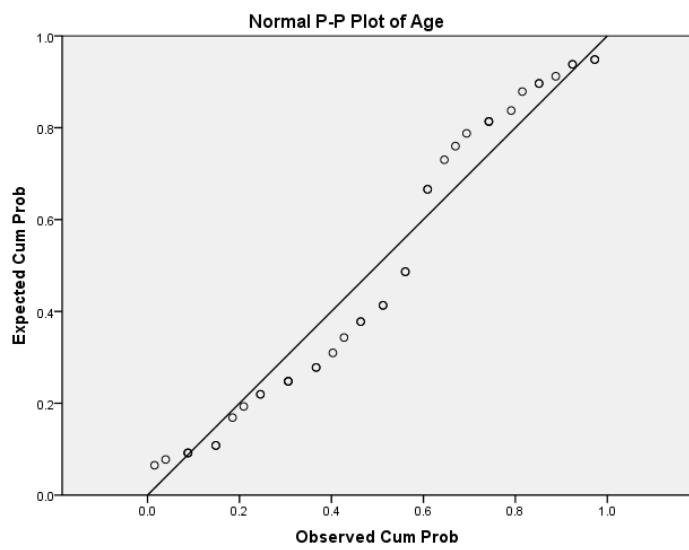
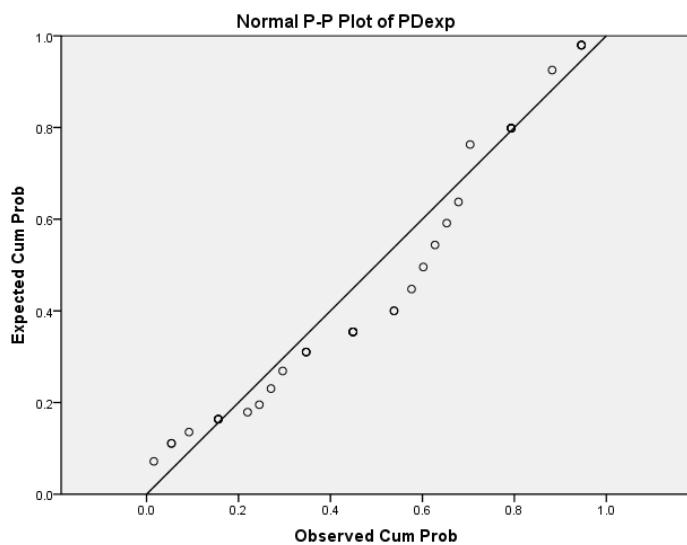
Figure A11 Frequency of sessions = Fortnightly**Figure A12** Age

Figure A13 Experience working in personality disorder services

APPENDIX D2: Skewness and Kurtosis values for Demographic Data not requiring transformation

Table A1 Skewness and Kurtosis for Demographic Data

	Skewness <i>z</i> -score	Kurtosis <i>z</i> -score
Gender = Female	1.33	.79
Gender = Male	.67	-.99
Profession = Nursing	.55	-1.00
Profession = Psychology	-1.25	-.63
Profession = Psychiatry	-.70	-1.05
Profession = Social Work	-.61	-.94
Therapy = CBT	-1.44	.15
Therapy = DBT	-1.79	1.46
Therapy = Psychodynamic	.51	-1.02
Sessions = Weekly	-1.26	-.83
Sessions = Fortnightly	-1.19	.66
Age	.51	-1.35
Experience Working in Personality Disorder Services	1.96	-.69

APPENDIX D3: Normality Plots for Demographic Data after transformation

Figure A14 Experience providing therapy for personality disorder

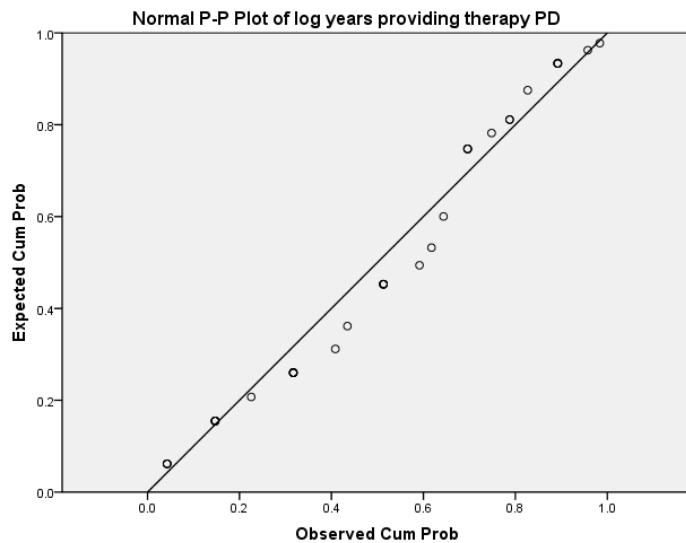


Figure A15 Time known client

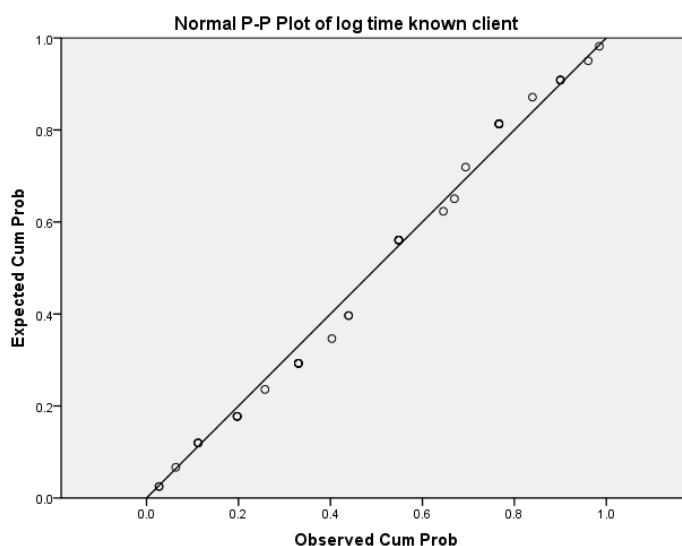
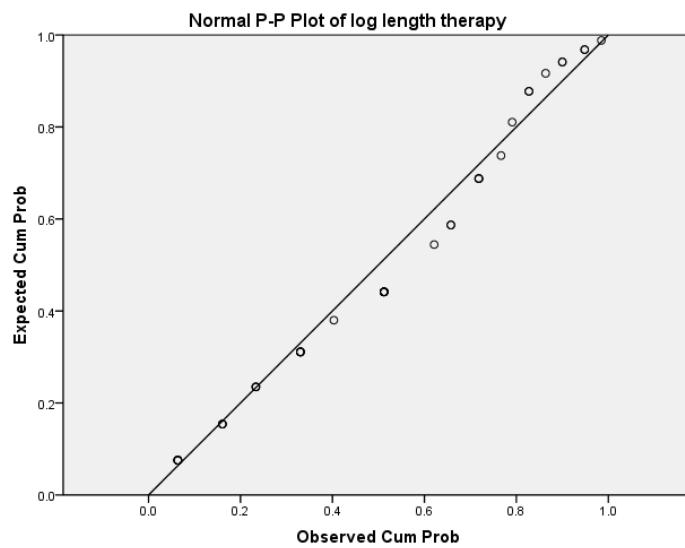


Figure A16 Length of therapy

APPENDIX D4: Skewness and Kurtosis values for Demographic Data after transformation

	Skewness <i>z</i> -score	Kurtosis <i>z</i> -score
Experience providing therapy for personality disorder	0.97	-1.09
Known client	.05	-0.97
Length of therapy	1.38	-.79

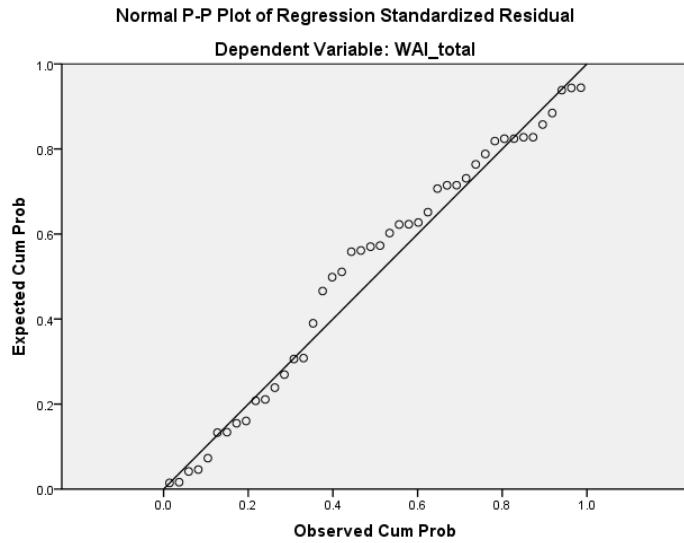
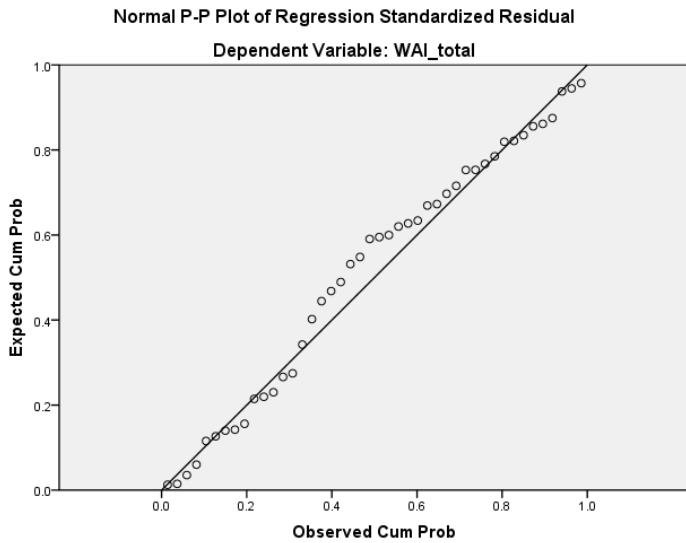
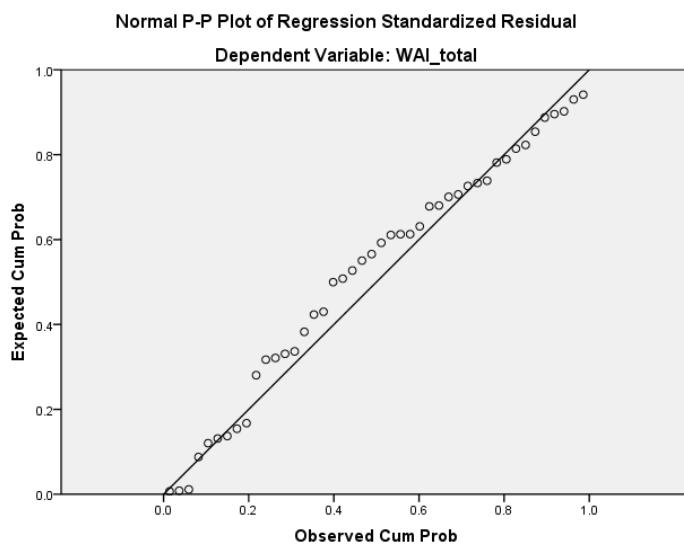
APPENDIX D5: Normality Plots for Residuals of Primary Variables**Included in Regression Analyses****Figure A17** ECR Anxiety as a predictor of Working Alliance**Figure A18** ECR Avoidance as a predictor of Working Alliance

Figure A19 DERS total score as a predictor of Working Alliance

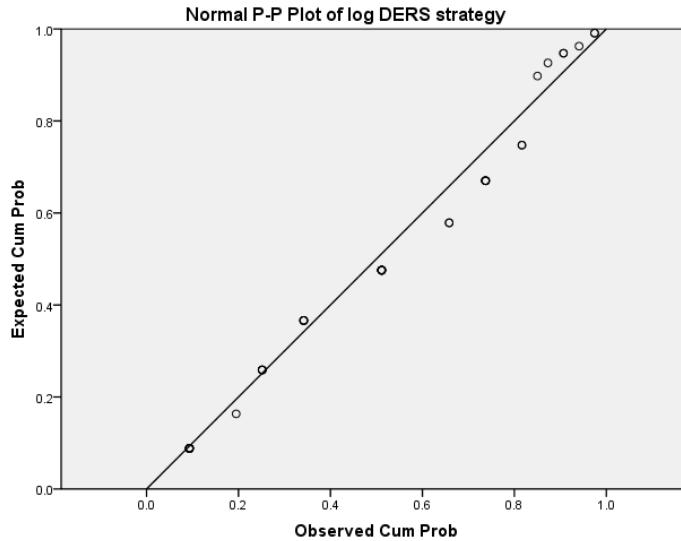
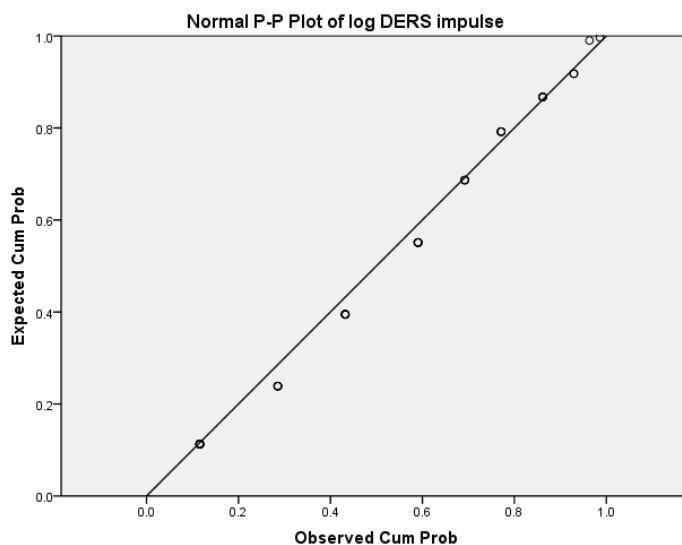
APPENDIX D6: Normality Plots for DERS Subscales**Figure A20** DERS Strategy Subscale (after transformation)**Figure A21** DERS Impulse Subscale (after transformation)

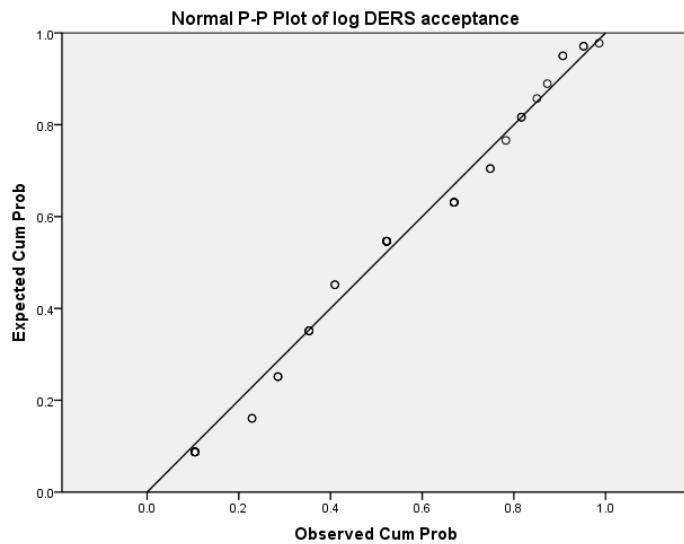
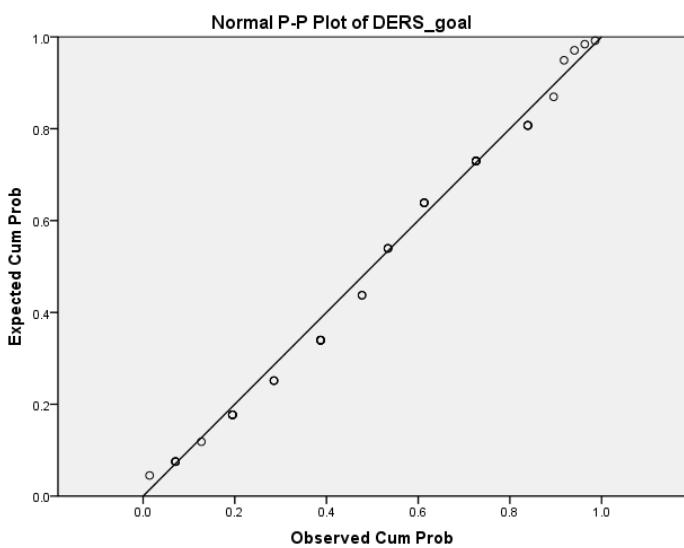
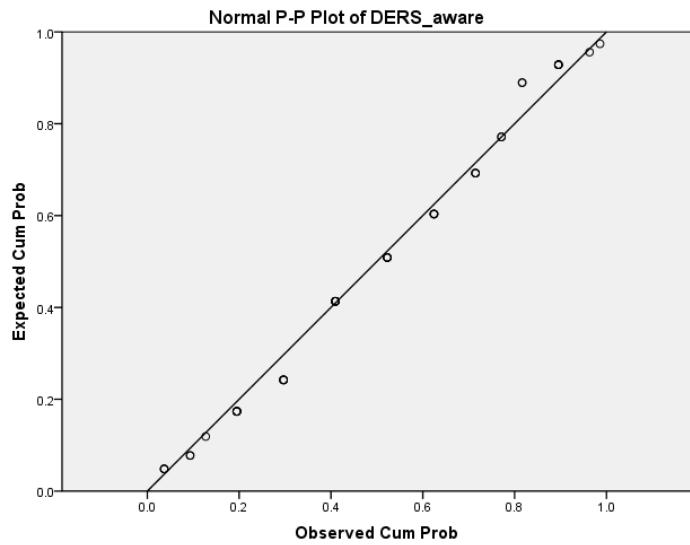
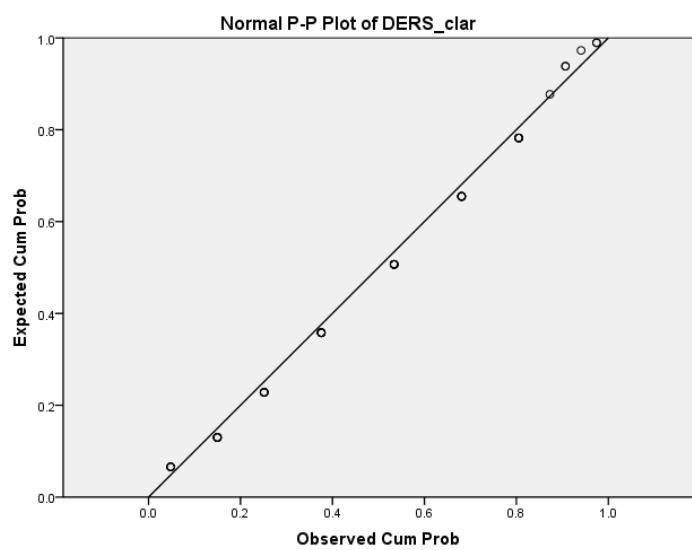
Figure A22 DERS Acceptance Subscale (after transformation)**Figure A23** DERS Goal Subscale

Figure A24 DERS Awareness Subscale**Figure A25** DERS Clarity Subscale

APPENDIX D7: Skewness and Kurtosis values for DERS Subscales

	Skewness <i>z</i> -score	Kurtosis <i>z</i> -score
Non-acceptance of emotional responses (transformed)	.72	-.98
Difficulties engaging in goal directed behaviour	1.15	-.58
Impulse control difficulties (transformed)	1.84	.37
Lack of emotional awareness	.43	-1.10
Limited access to emotion regulation strategies (transformed)	1.70	.28
Lack of emotional clarity	1.39	-.45