

**Adult Attachment Styles and Childhood Experiences of Parenting  
of Men Diagnosed with Personality Disorder, Detained in a High Security  
Psychiatric Hospital: An Exploratory Study**

Thesis submitted as part requirement  
for the fulfilment of the degree of  
Doctorate of Clinical Psychology  
University of Leicester

**by**

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# **Adult Attachment Styles and Childhood Experiences of Parenting of Men Diagnosed with Personality Disorder, Detained in a High Security Psychiatric Hospital: An Exploratory Study**

**Louise Sainsbury**

## **Abstract**

This study examined the relationships between retrospective recall of childhood experiences of parenting and abuse, and self report measures of adult attachment styles and personality disorder, in a sample of men diagnosed with personality disorder and detained in a high security psychiatric hospital for committing serious criminal offences.

The results found predominantly insecure attachment styles within this sample and an association between attachment anxiety and severity of personality disorder. Recalled repeated separations from attachment figures were related to severity of personality disorder. Specific characteristics of parenting and abuse were related to severity of attachment anxiety and avoidance in adult intimate relationships. Furthermore, greater attachment anxiety was found for participants with a history of sex offences against children, compared with participants who had committed violent non-sex offences.

These results suggest that adult attachment styles may play a mediating role between childhood experiences and severity of personality disorder. These results provide further support for the applicability of attachment theory to the understanding of offending. The results highlight clinical implications for individual therapy, ward interventions, patient selection and service organisation. In particular the interaction between staff attachment styles and effectiveness of interventions is discussed. This study suggests areas for future research including more detailed research of childhood experiences, attachment theory and personality disorder.

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# **1 Introduction**

Attachment theory potentially offers an empirically based framework for developing a theoretical understanding of the severe interpersonal difficulties underlying personality disorders (PDs) and their development, including the role of childhood experiences. Recent developments in adult attachment theory have led to studies of the attachment styles of people diagnosed with personality disorders (Sack, Sperling, Fagen & Foelsch, 1996; West, Rose & Sheldon-Keller, 1995). This has resulted in an increased understanding of the underlying core difficulties associated with PD, the role of childhood experiences in its development, as well as contributing to treatment approaches.

This study aims to examine the adult attachment style and childhood experiences of men who have been diagnosed with PDs and detained in a high security psychiatric hospital for committing serious criminal offences. This section will give a brief summary of the current classification of PD and its limitations, followed by a review of the current understanding of attachment theory, in particular the areas of adult attachment styles and PD, and their links with childhood experiences.

## **1.1 Personality Disorder**

### **1.1.1 Definition and Diagnosis**

The majority of research into PD has used the Diagnostic and Statistical Manual (DSM) for its definition and diagnosis. This classification system has undergone several revisions, the last being DSM-IV (APA, 1994). The DSM-IV classification system will be used in this study, as it is the most commonly used system, both in the PD research literature and the high security hospital where this study took place.

DSM-IV defines PD as:

*'an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable overtime and leads to distress or impairment.'*

(APA, 1994: p. 629)

DSM IV divides PD into eleven main categories, which are grouped into three clusters, and a further two categories are described in its appendix. DSM-IV sets out criteria for each category in order of decreasing diagnostic importance as measured by relevant data on diagnostic efficiency when available. The thirteen PDs are outlined below and full criteria for each PD can be seen in appendix one.

*Cluster A:* often appears odd and eccentric:

- *Paranoid:* a pattern of distrust and suspiciousness such that others' motives are interpreted as malevolent;

- *Schizoid*: a pattern of detachment from social relationships and a restricted range of emotional expression;
- *Schizotypal*: a pattern of acute discomfort in close relationships, cognitive or perceptual distortions and eccentricities of behaviour.

*Cluster B*: often appears dramatic, emotional and erratic:

- *Antisocial*: a pattern of disregard for and the violation of the rights of others;
- *Borderline*: a pattern of instability in interpersonal relationships, self-image, affect and marked impulsivity;
- *Histrionic*: a pattern of excessive emotionality and attentions seeking;
- *Narcissistic*: a pattern of grandiosity, need for admiration and lack of empathy.

*Cluster C*: often appears anxious and fearful:

- *Avoidant*: a pattern of social inhibition, feelings of inadequacy and hypersensitivity to negative evaluation;
- *Dependent*: a pattern of submissive and clinging behaviour related to an excessive need to be taken care of;
- *Obsessive-Compulsive*: a pattern of preoccupation with orderliness, perfectionism and control.

Two further types of PD are identified in the appendix of DSM-IV (APA, 1994: p. 723-735) as areas for further study: passive aggressive PD and depressive PD.

- *Passive-aggressive*: a pervasive pattern of negativistic attitudes and passive resistance to demands for adequate performance in social and occupational situations;

- *Depressive*: a pervasive pattern of depressive cognitions and behaviours, including a persistent and pervasive feeling of dejection, gloominess, cheerlessness, joylessness and unhappiness.

The clusters are based on descriptive similarities, however DSM IV (APA, 1994, p. 630) states that the clusters have not been consistently validated and individuals frequently present with co-occurring PDs from different clusters.

DSM IV specifies a further category, personality disorder not otherwise specified and provides this category for two situations:

1. *When an individual's personality pattern meets the general criteria for a personality disorder and traits of several different personality disorders are present, but the criteria for any specific personality disorder are not met;*
2. *When an individual's personality pattern meets the general criteria for a personality disorder, but the individual is considered to have a personality disorder, which is not included in the classification (e.g. passive-aggressive personality disorder).*

(APA, 1994: p. 629)

DSM-IV defines personality traits as enduring patterns of perceiving, relating to and thinking about the environment and oneself, which are exhibited across a wide range of social and personal contexts and are inflexible and maladaptive, causing significant functional impairment or subjective distress (APA, 1994: p. 630). These aspects of the definition of personality traits form the basis of six criteria, which are to be met if a diagnosis of PD is to be made. These criteria can be seen in appendix two.

DSM-IV sets forth a categorical model of PD, although it argues that the three clusters may also be viewed as dimensions representing spectra of personality dysfunction on a continuum with Axis I mental disorders. Although the DSM classification system is widely used, there have been many criticisms of it and of its classification of PD in particular. However, it is not within the scope of this study to explore the limitations of the classification of PD in any detail, other than to acknowledge the main difficulties which have been highlighted in the research. Recent reviews of this area have been conducted by Livesley (1998), Koerner, Kohlenberg and Parker, (1996) and Derksen, (1995). These and other studies have highlighted the main limitations, which are summarised below:

- Lack of a theoretical or empirical rationale for the selection of categories (Derksen, 1995; Livesley, 1998);
- Continued use of a categorical approach, when the evidence consistently shows that the features of PD are continuously distributed and represent the extremes of normal personality variation (Livesley, Schroeder, Jackson, & Jang, 1994; O'Conner, & Dyce, 1998);
- Multivariate statistical analyses indicate that the diagnostic features and traits of PD are not organised into the DSM categories (Livesley, Jackson, & Schroeder, 1992);
- Diagnostic reliability is limited (Widiger & Sanderson, 1995).
- The validity of most diagnoses has not yet been established. The evidence for internal validity (e.g., the extent to which diagnostic criteria form homogeneous clusters) is limited. In terms of external validity (e.g., the extent to which diagnoses are distinct from one

another and the degree to which they predict important external criteria, such as aetiology, and treatment), there is limited evidence that diagnostic concepts predict important external variables (Koerner et al, 1996; Livesley, 1998);

- Diagnostic overlap is extensive, even though the classification seeks to be mutually exclusive (Clarkin, Widiger, Frances, Hurt & Gilmore, 1983; Livesley, Jackson, & Schroeder, 1992).
- The classification system aims to be exhaustive and DSM-IV achieves this through the use of the 'personality disorders not otherwise specified' category, however this is used too frequently in this system to be justified (Livesley, 1998);
- The system appears to have been constructed from a purely clinical perspective, with minimal attention to related fields such as personality, cognitive science and evolutionary psychology (Koerner et al, 1996; Livesley, 1998).

While there are many criticisms of DSM, it does provide the starting point of a clinically based, general description of the presentations associated with PDs. This provides clearly specified terms and definitions to ensure precise, unambiguous communication about the same entities. The limitations described above highlight two areas, which are the focus of this study: the core nature and aetiology of PDs.

The literature emphasises two core features in the conceptualisation of PD: chronic interpersonal difficulties and problems with sense of self. These areas are central to attachment theory and in particular to internal working models, which contain core beliefs

about the self, others and their relationship with each other. This area will be examined in detail in a later section.

Within the area of aetiological factors of PD there is much debate in the literature about the role of childhood trauma in the aetiology of PD (e.g. Paris, 1998; Sabo, 1997). The next section will focus on the role of childhood trauma in the development of PD.

### 1.1.2 Childhood Experiences and the Aetiology of Personality Disorders

Research in behavioural genetics has found that heritable components of personality account for between 0 - 50% of the variance between individuals for PD traits, the rest deriving from a multitude of experiences that are particular to the individual (Livesley, Jang, Schroeder & Jackson, 1993). However, research has failed to show that PDs as defined categorically, are heritable (McGuffin & Thaper, 1992). One hypothesis is that heritable components are a predisposition which is activated by combinations of certain experiences (e.g. family adversity, trauma), which may vary with age (Paris, 1997).

People with PD, particularly those with borderline PD, report a large number of traumatic events during their childhood when compared to those with near neighbour disorders (Paris, 1996). Cross sectional retrospective studies have found that sexual and physical abuse, witnessing domestic violence, disrupted family circumstances and loss and separation are associated with borderline PD, (Herman, Perry & Van der Kolk, 1989; Ogata, Silk, Goodrich, Lohr, Western & Hill, 1990; Patrick, Hobson, Castle, Howard & Maughan, 1994; Zanarini, Williams, Lewis, Reich, Vera, Marino, Levin, Yong & Frankenburg, 1997). Child abuse has been found to be a significant predictor of antisocial and borderline PDs (Luntz & Widom,

1994; Brown & Anderson, 1991). Furthermore, community samples of women who reported being abused as children, report a higher frequency of the symptoms characteristic of borderline PD (Browne & Finklehor, 1986).

However, studies of people with different type of psychopathology have also found significantly higher frequencies of recalled childhood abuse than in controls, e.g. schizophrenia (Hedges, Taylor & Leese, 1997); post traumatic stress disorder (Bremner, Southwick, Johnson, Yehuda & Charney, 1993); depression (Kessler & Margee, 1993). High rates of child abuse have also been found in other types of PD (Laporte & Guttman, 1996; Zanarini et al, 1997) compared to normal population prevalence rates. This indicates that child abuse may be a risk factor for psychopathology in general with the impact of other variables influencing the development of different disorders.

More severe child sexual and physical abuse has been found to differentiate borderline PD from other types of PD and other psychiatric conditions (Goldman, D'Angelo, DeMaso & Mezzacappa, 1992; Laporte & Guttman, 1996). This suggests that the severity of trauma may influence the development of BPD. However, Paris, Zweig-Frank and Guzder (1994) found that severe sexual abuse was reported by only a minority of patients with BPD and that the severity was identical in the borderline PD and other PD groups, with the majority being reports of single incidences, by distant relatives or non-familial perpetrators. Paris et al, (1994) found no aspects of abuse which differentiated the two groups.

The majority of studies have investigated the effects of abuse as if it occurred in a vacuum, which could explain the inconsistent findings regarding the relationship between abuse and PDs (Paris, 1997). Research has found that many types of abuse occur together, often in the context of poor parent-child relationships and that neglect is often a precursor to abuse

(Claussen & Crittenden, 1991; Ney, Fung & Wickett, 1994). It is possible that different combinations and severity of childhood maltreatment influence the development of different PDs.

In recent reviews, Paris (1997; 1998) concluded that the evidence is consistent with the idea that childhood environment plays a major role in the development of PDs, in combination with a number of other variables. Paris (1996) suggested the following possible factors as areas to investigate: family dysfunction; early separation or loss; parental psychopathology; social disintegration; neglect and childhood sexual and physical abuse.

Bi-parental emotional neglect and the absence of a surrogate attachment figure have been found to be more common in the childhood experience of borderline PD patients, compared with normal controls, people with different PDs and other psychiatric disorders (Laporte & Guttman, 1996; Paris & Zweig-Frank, 1993). Chronic harsh, highly negative and inconsistent parenting has been shown to be at least as damaging as child abuse, if not more so (Ney et al, 1994). Van der Kolk, Perry and Herman (1991) concluded that childhood neglect, not trauma was the most powerful predictor of persistent self-destructive behaviour.

Studies have investigated childhood family characteristics of adults with PD. Patients with PD and particularly adults with avoidant PD have reported lower levels of parental care than non-PD patients (Mulder, Joyce & Cloninger, 1994; Truant, 1994). Baker, Capron and Azorlosa (1996) found that family environments low in emphasis on independent functioning and cohesion and high on control were associated with dependent PD in a non-clinical sample. Baker et al (1996) also found that family environments of adults with histrionic PD were characterised by high levels of control and intellectual-cultural orientation, and as high in achievement orientation as the control group.

Studies have found that both male and female BPD participants reported less parental care and more parental control than psychiatric and non-clinical controls (Byrne, Velmoor, Cernovsky, Cortese & Losztyn, 1990; Torgersen & Alnaes, 1992; Zanarini et al, 1997; Zweig-Frank & Paris, 1991). Sack, Sperling, Fagen and Foelsch (1996) found that a sample of patients, with either clear borderline PD or mixed PD with predominantly borderline features, described their parents as: unresponsive; critical; abusive and less attentive, respectful, understanding, loving and affectionate than a college sample. Borderline patients have reported significant disinterest, disapproval and lower parental care in fathers (Frank & Paris, 1981; Melges & Swartz, 1989; Paris & Frank, 1989) and negative over-involvement in mothers (Melges & Swartz, 1989).

Zanarini et al, (1997) investigated the role of childhood sexual abuse and a range of other childhood experiences in a large sample of borderline in-patients and a smaller group of in-patients with other PDs. They found that, consistent with previous research, some form of abuse and neglect were present in all the borderline group participants, including emotional abuse, verbal abuse, physical abuse, sexual abuse, emotional neglect, role reversal of the parent-child relationship, inconsistent parental behaviour towards the child, physical neglect and failure to protect. These experiences were separately reported by between 50 and 92 percent of the borderline group and these levels were significantly higher than the rates reported by the other PD groups. However, the other PD groups reported rates of abuse, were still higher than has been reported by general populations (e.g., Browne & Finklehor, 1986) and higher than a less severe sample of borderline adults (Salzman, Salzman, Wolfson, Albanese, Looper, Ostacher, Schwartz, Chinman, Land & Miyawaki, 1993).

Zanarini et al (1997) found that borderline patients who reported childhood sexual abuse, also reported significantly more chaotic environments, including emotional, verbal and physical abuse, physical, and emotional neglect and inconsistent parenting than the borderline patients who did not report child sexual abuse. Zanarini et al (1997) concluded that sexual abuse, particularly by a non-caretaker, seemed to be an important factor in the aetiology of borderline PD and other childhood experiences also play an important role, especially neglect by both parents.

The majority of studies have focused on borderline PD and there have been very few studies on the childhood experiences of parenting in all the PD types (e.g., Paris, Frank, Buonvino & Bond, 1991; Modestin, Oberson & Erni, 1998; Norder, Klein, Donalson, Pepper & Klein, 1995). Paris et al (1991) found that lower levels of maternal care were reported by both male and female out-patients with cluster A and cluster B PDs, and higher levels of maternal control were reported by patients with PDs from all clusters, than patients without PD. Norder et al (1995) found that antisocial traits were associated with lower levels of parental care and physical abuse and that borderline and self-defeating traits were associated with lower levels of parental care and sexual abuse. Modestin et al, (1998) found that the PD group reported more childhood trauma of all kinds and higher parental control combined with lower parental care, compared to a non-PD psychiatric group. Furthermore, they found that there were no differences in the number of reported traumas between borderline PD and other PDs.

Modestin et al (1998) found very different results according to gender. In men, paternal attitudes were significantly associated with PD pathology of all clusters, especially cluster B. Maternal bonding was not as strongly associated with male PD pathology, although it was significantly associated with cluster B pathology. Cluster B pathology in women was also associated with maternal bonding, while paternal bonding was not associated with any PD

clusters (Modestin et al, 1998). No significant correlations between childhood trauma and any of the PD clusters were found for the men. However, significant correlations between physical abuse and cluster A, sexual abuse and early separations and cluster B, and witnessing domestic violence and cluster C, were found for women.

Overall, Modestin et al, (1998) found that separation from significant others showed little importance and broken homes showed no importance in association to PD pathology.

However, the relationship of the perpetrator to the victim is not specified in the report of this study. It is possible that this is confounded with the association of separation from a significant other, as it is likely for at least some, that the perpetrator would also have been a significant other. Furthermore this study has a relatively small sample size, indicating that further studies examining these findings are needed. Further studies may benefit by including a more detailed method of assessing childhood relationships with parents.

### 1.1.3 Summary

The research has generally found that high levels of abuse, including domestic violence, neglect and poor and harsh parenting in various combinations, are associated with all the PDs. The majority of studies have examined these patterns in terms of their frequencies in different groups, without any discernable theoretical framework as to why these experiences may be more associated with certain types of psychopathology. Studies are now emerging which explore the relationships between childhood experiences and PD from the theoretical perspective of attachment theory (e.g., Alexander, 1992; Brennan & Shaver, 1998; Fonagy, Target, Steele, Steele, Leigh, Levinson, & Kennedy, 1997; Van IJzendoorn, Feldbrugge, Derks, de Ruiter, Verhagen, Philipse, Van der Staak, & Riksen-Walraven, 1997).

Attachment theory provides an empirically based theory through which to explain how childhood experiences may significantly contribute to the development of PDs in some people and not in others. Attachment theory offers the potential for explaining the possible links between beliefs about the self and others developed from childhood experiences, and the interpersonal difficulties which manifest in the form of PD. The following sections will examine attachment theory and the recent research investigating the associations between adult attachments, childhood experiences and personality disorders.

## **1.2 Attachment Theory**

Attachment theory (Bowlby, 1969; 1973; 1980) is a way of conceptualising the propensity of human beings to make strong affectional bonds to significant others and of explaining many forms of emotional distress and personality disturbance, including anxiety, anger, depression and emotional detachment, to which loss and separation gives rise.

Attachment theory proposes that attachment behaviours are biologically determined and function to regulate proximity to their attachment figures with the main aim of protection. This acts as a kind of homeostatic mechanism for modulating anxiety, with the goal of helping the individual learn to modulate their anxiety on their own. Attachment behaviours to a preferred figure develop during the first nine months of life, remaining readily activated until three years old and beyond. A positive attachment figure is best, but failing this any attachment figure will do, a cold unhelpful figure is likely to be seen as being better than nothing (Bowlby, 1973).

Internal working models are theorised to contain core beliefs about the self, others and attachment relationships. Internal working models are formed from an individual's experience of his or her earliest attachments (Main, Kaplan & Cassidy, 1985). These internal models typically concern how trustworthy, accessible, caring and responsive attachment figures are, as well as beliefs about the extent to which the self is worthy of love, care and protection. These structures provide a framework for cognitive and affective processing of perceptions, events and relationships, which underlie and drive subsequent attachment behaviour. Bowlby (1977) proposed that the particular patterns of attachment behaviour shown by an individual will depend partly on their experiences with early attachment figures and partly on their age,

sex and current circumstances. Research indicates that the different models, developed in response to the quality of caregiver availability, are carried forward to affect the creation of new relationships (Main, Kaplan & Cassidy, 1985; Lewis, Feiring, McGuffog & Jaskir, 1984).

During adolescence, early attachments may attenuate and become supplemented by new ones or in some cases replaced by them, although early attachments commonly persist. Marshall (1993) states that adolescence is a complex and probably critical period for later behaviours and attitudes. Although attachment behaviours diminish steadily with age, these behaviours persist as an important part of an adult's behavioural equipment and are evident when a person is distressed, ill or afraid (Bowlby, 1977) and are assuaged by comfort and care-giving (Bowlby, 1988).

Attachment theory has generated a large body of research including attachments across the life span (e.g., Parkes, Stevenson-Hinde & Marris, 1991), methods of investigating parent-child attachments (Strange Situation: Ainsworth, Blehar, Waters & Wall, 1978) and adult attachment styles (Adult Attachment Interview: George, Kaplan & Main, 1985; Relationship Questionnaire: Bartholomew & Horowitz, 1991). These methods have led to research which has found that infant attachment patterns can be predicted prior to the birth by the parent's attachment styles (Fonagy, Steele & Steele, 1991). Reviews of this field have concluded that, although infant temperament may have a role in attachment, the research on stability, concordance and parental influence suggests that attachment status primarily reflects the quality of the relationship between parent and child (Paterson & Moran, 1988; Lyons- Ruth, 1996).

### 1.2.1 Child Attachment Styles

While the focus of this study is on adult attachment style and retrospective recall of childhood experiences of parenting, research into child attachment styles can suggest experiences which may be associated with specific adult attachment styles. This section will briefly review the main findings of this area.

The development of the Strange Situation (Ainsworth, Blehar, Waters & Wall, 1978), to assess the quality of infant-caregiver relationships, provided an empirical method to test some of the propositions of attachment theory. Using this method, Ainsworth and colleagues (1978) initially identified three basic infant-caregiver patterns: secure; insecure-avoidant; insecure-resistant. Subsequent research on high risk and clinical populations of children has led to identification of a fourth attachment pattern, insecure-disorganised (e.g., Main & Solomon, 1990). The definitions of the four attachment patterns can be seen in appendix three.

In normative Western samples, 55-65 percent of infants show a secure attachment pattern, 20-25 percent show an insecure-avoidant pattern, 10-15 percent show an insecure-resistant pattern and 10-20 percent for the disorganised/disoriented attachment style (Goldberg, 1995; Main & Solomon, 1990; Van IJzendoorn & Kroonenberg, 1988). These patterns of infant behaviour are seen as variations within the normal range, rather than pathological, and as an adaptive response to parental behaviour, with the goal of ensuring care and protection.

### 1.2.2 Secure Child Attachment Style

Research has found that securely attached parents generally respond in a correctly attuned way to both positive and negative expressions by their infants, demonstrate firm control, clear communication, warmth and affection, and show consistent and appropriate assertion of power (Belsky, Rovine & Taylor, 1984; Main & Goldwyn, 1984; Patterson & Stouthamer-Leef, 1984).

These caregiver behaviours have been correlated with the following child behaviours: pro-social interaction skills; better problem solving skills and initiative; better impulse control and less aggression; seek help or comfort from others; are engaging, likeable, self-assured, competent and self-directed (e.g. Crittenden, 1992; Grossman & Grossman, 1991; Patterson and Stouthamer-Leef, 1984; Waters, Wippman & Sroufe, 1979). Longitudinal studies have found that secure infants generally do better during preschool and early school age than insecurely attached peers (Belsky et al, 1984; Erickson, Sroufe & Egeland, 1985; Lewis et al, 1984; Renken, Egeland, Marvinney, Mangelsdorf & Sroufe, 1989).

### 1.2.3 Avoidant Child Attachment Style

Studies have found associations between infant avoidance and the following attachment figure behaviours: unresponsiveness; suppressed anger; dislike of physical contact; lack of tenderness in touching and holding; insensitive intrusiveness; rejection of infant's attachment behaviours and rejection of the child (Ainsworth et al, 1978; Belsky et al, 1984; Egeland, Pianta & O'Brien, 1993; Lyons-Ruth, Connell, Zoll & Stahl, 1987; Main, Tomasini & Tolan, 1979). Haft and Slade (1989) found that avoidant mothers attuned to their infant's expressions of mastery, autonomy and separateness, while failing to attune to their infant's bids for comfort and reassurances.

The research suggests that avoidantly attached children are: socially withdrawn; lacking in interpersonal understanding and sensitivity; hesitant and less competent in social interactions; non-compliant; hostile; do not seek social support and are more aggressive (e.g., Crittenden, 1992; Grossman & Grossman, 1991; Main & Goldwyn, 1984). These associations have been found to be stronger in economically disadvantaged families, when compared with economically advantaged families (Lyons-Ruth, 1996).

#### 1.2.4 Resistant Child Attachment Style

Most studies of child attachment styles have found only a few resistant infants and therefore little is known about their history or development. Cassidy and Berlin (1994) reviewed current research on this group and noted that a pattern of low maternal availability, combined with maternal interference in infant exploration, characterised the mother-infant relationship. Belsky et al (1984) found that maternal behaviours including less responsive care, little reciprocal interaction and inconsistent acceptance and rejection, were associated with a resistant child attachment style. Haft and Slade (1989) found that mothers of resistant children randomly attuned to their infant's positive and negative affective states and failed to attune to their infant's expression of initiative play. Egeland and Sroufe (1981) found that infants in their sample who were classified at 12 months old as resistant, had a history of neglect and at 18 months were classified as avoidant. They suggested that by 18 months old the infants may have given up on attempts to elicit attachment behaviour from their caregivers (Egeland & Sroufe, 1981).

### 1.2.5 Disorganised Child Attachment Style

The disorganised attachment style refers to the apparent lack of, or collapse of, a consistent strategy for organising responses to the need for comfort and security when under stress (Lyons-Ruth, 1996). The particular forms and combinations of disorganised attachment behaviours tend to differ from child to child. However they often include some of the following behaviours: apprehensive, helpless or depressed behaviours; unexpected alternations of approach and avoidance towards the attachment figure; prolonged freezing or slowed movements and aspects of the avoidant and ambivalent strategies often mixed in unpredictable ways (Main & Solomon, 1990).

It has been argued that the odd behaviours of the disorganised attachment style only makes sense if one can assume that the child is confused or fearful with respect to their caregiver (Goldberg, 1997). Studies of maltreated children have found that between 70-100 percent display this attachment pattern (e.g., Carlson, Cicchetti, Barnett & Braunwald, 1989; Lyons-Ruth, Connell, Grunebaum & Botein, 1990). Lyons-Ruth, Alpern and Repacholi (1993) found that disorganised infant attachment was the best predictor of teacher ratings of hostile behaviours in five-year old children. Mothers with different forms of psychopathology or unresolved mourning tend to have infants who are classified as disorganised (Schuengel, Bakermans-Kranenburg & Van IJzendoorn, 1999; Van IJzendoorn, 1995).

Research into children who have been abused and/or neglected by their attachment figures have been consistently observed as demonstrating an avoidant and/or ambivalent attachment style or a disorganised attachment style (Carlson et al, 1985; Crittenden, 1992; Lamb, Gaensbauer, Malkin & Schultz, 1985). Crittenden (1992) found that the children's coping strategies were a function of both the type of maltreatment and the child's age and although

the strategies were coherent, they were not necessarily the same across situations and relationships. Lyons-Ruth (1996) in a review of disorganised attachments, concluded that this presentation was associated with: current maternal depression; maternal histories of childhood abuse or violence; maternal inpatient psychiatric histories; documented child maltreatment and more intrusive, negative and role-reversing parenting styles.

Insecure attachments have been suggested as a precursor to and risk factor for abuse (Alexander, 1992). Goldberg (1997) conducted a meta-analysis of several studies of attachment style in children from normal populations, at risk populations and clinical populations. Although there was a relatively small sample size, the meta-analysis showed consistent evidence that the likelihood of insecure attachments, in particular the disorganised pattern, increases along the continuum from normal to at risk, to clinical groups. An inconsistent approach to relationships is likely to exist for the caregiver and this leads to the maltreated child changing their approach style to fit the caregivers in order to obtain security (Crittenden, 1988).

Marshall (1993) using case examples showed how poor attachments help to form internal working models, and how these beliefs and attitudes influence both understanding and behaviour in later events, which can lead to an increasingly negative spiral of experiences. For instance the abuse of small children may render them more hostile and this produces a risk factor for their not finding surrogate parents in other adults (Sabo, 1997), thus maintaining their experiences of negative attachment figures, reinforcing their internal working models. Loos and Alexander's (1997) research findings suggest that emotional neglect simultaneously denies a child the opportunity to develop appropriate social skills and gives the message that he or she is not good enough to warrant the parent's attention. This can then result in loneliness, lack of support and protection and a lack of intimacy in adulthood (Marshall, 1993).

Bowlby (1973) introduced the term 'multiple models' where an individual holds contradictory internal working models of self and others. This helps to explain how troubled and distressed individuals often show incoherence of thought regarding their attachment relationships.

Multiple contradictory models have been linked to the poor development of metacognitive functioning, the ability to think about ones own thinking process (Main, 1991). It has been identified that multiple models of self and others are likely to develop when infants and young children are required to encode experiences that are in fact contradictory, such as maltreatment by their attachment figure (Lynch & Cicchetti, 1991).

### 1.2.2 Summary

The research on child attachment has shown that insecure attachments are consistently linked with poor quality care and that the disorganised child attachment styles is most commonly associated with child maltreatment. Furthermore, research has found that these child attachment styles are strongly linked with caregiver's attachment representations of their own parenting histories. These results indicate that child attachment experiences may have long-term influences on interpersonal relationships. The next section focuses on adult attachment styles and their connections with childhood experiences.

### **1.3 Adult Attachment Theory**

Attachment research has been extended to adults, based on the theory's proposal that the attachment system remains active throughout the life-span and that an individual's early experiences can have long lasting effects on adult relationships, through internal working models (Ainsworth, 1989; Weiss, 1991). Furthermore, research has begun to highlight possible mechanisms by which parent-child relationship factors lead to the development of psychopathology (Holmes, 1993).

Within social psychology, Hazan and Shaver's (1987) seminal paper examined the links between romantic love and attachment styles in adults, using their three-category adult attachment self-report measure: Romantic Attachment Questionnaire (RAQ). Hazan and Shaver (1987) translated Ainsworth's three child attachment styles, secure, avoidant, and resistant, into adult attachment styles; secure, avoidant and preoccupied, respectively. The definitions of these three adult attachment styles can be seen in appendix four. Hazan and Shaver (1987) found theoretically expected differences across the attachment styles in terms of how adults experienced their important love relationships. This includes beliefs about romantic love, levels of loneliness and patterns of childhood relationships with parents, which were consistent with child attachment research.

At approximately the same time George et al, (1985) began to develop the Adult Attachment Interview (AAI), from a clinical and developmental psychology perspective. This system categorises individuals into three adult attachment styles: autonomous; preoccupied and dismissing. These styles mirror those identified in children, secure, resistant and avoidant, respectively. A secondary classification is also made when an individual is observed to appear unresolved with respect to childhood trauma. A fourth category, disorganised, was

later identified from AAI transcripts, which could not easily be classified (Hesse, 1996) and this corresponds to the disorganised child attachment style. Definitions of all four categories can be seen in appendix five. The development of these assessment methods has led to studies examining adult attachment styles in a range of populations, with a range of presenting problems (e.g., Brennan & Shaver, 1998; Patrick et al, 1994; Van IJzendoorn et al, 1997).

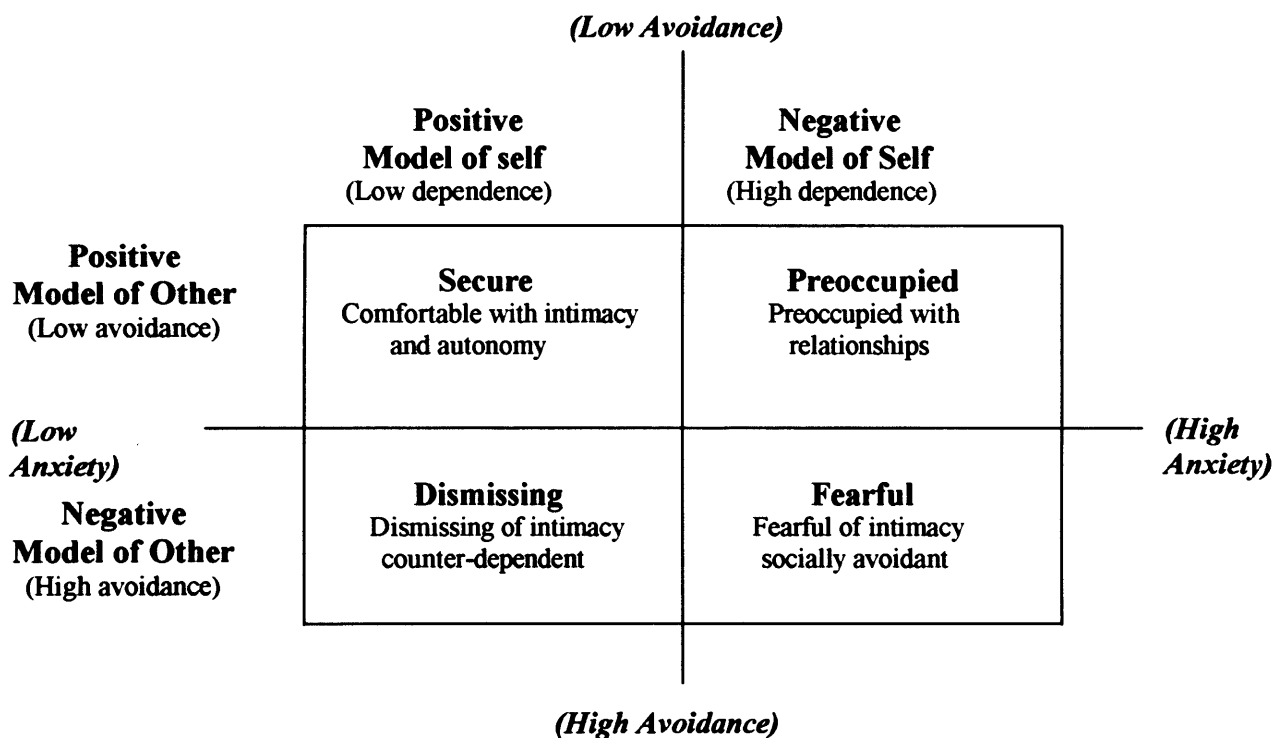
Bartholomew (1990) proposed a four-category model of attachment styles (see figure 1.3a), based on Bowlby's (1969) conception of internal working models. Bartholomew (1990) proposed that internal working models can be dichotomised as either positive or negative, e.g. self is either worthy of love and attention (positive) or unworthy (negative); others are either trustworthy, caring and available (positive) or rejecting, uncaring and distant (negative).

By combining each internal working model of self with each internal working model of other, four adult attachment categories are hypothesised: secure; preoccupied; dismissing; and fearful. Bartholomew and Horowitz (1991) developed the Relationship Questionnaire to assess individuals across the four adult attachment styles. Definitions of each of the adult attachment styles can be seen in appendix six. Figure 1.3a shows the four attachment categories and their relationship to positive and negative internal working models of self and others. These attachment categories are also seen as being similar to the child attachment styles, with the secure, preoccupied, dismissing and fearful adult styles corresponding to secure, resistant, avoidant and disorganised child styles, respectively (Bartholomew, 1990; Brennan, Shaver & Tobey, 1991).

Recent reviews of the measurement of adult attachment styles has shown good validity and reliability for this four-category model (Bartholomew & Shaver, 1998; Brennan, Clark &

Shaver, 1998). Brennan, et al (1998) using principal components analysis of 60 attachment subscales reported in the adult attachment literature, found that two attachment factors underlay all of the measures. Brennan and colleagues (1998) named these two dimensions avoidance and anxiety and showed that they are almost uncorrelated with each other.

Figure 1.3a: Four Category Model of Attachment (Bartholomew, 1990).



Bartholomew and Horowitz (1991) and Brennan et al (1998) both found that: secure attachment style was typically low on both avoidance and anxiety; fearful was typically high on both avoidance and anxiety; preoccupied was typically low in avoidance and high on anxiety; and dismissing was typically high on avoidance and low on anxiety. This can be seen in figure 1.3a. Brennan et al (1998) found further support for the validity of the two underlying dimensions, in Ainsworth et al's (1978, p.102) study, where two dimensions, corresponding to avoidance and anxiety, were found to underlie the strange situation coding scales. Brennan et al, (1998) suggested that the strange situation coding scales primarily assess the avoidance and anxiety attachment dimensions.

### 1.3.1 Measurement of Adult Attachment Style

As stated previously, there are two main methods of measuring adult attachment styles, narrative measures (e.g., AAI; George et al, 1985) and self-report methods (e.g., RQ: Bartholomew & Horowitz, 1991). The AAI assesses adults current representations of their childhood relationships with their parents and whether this affects their ability to parent, based on the analysis of discourse. The RQ asks people to think about their most important romantic relationships and to decide which of the four attachment categories describes them best. Bartholomew and Shaver (1998) highlighted that the AAI and RQ were measuring different aspects of individuals internal working models, specifically parent-child relationships and adult romantic relationships respectively.

The extent to which these two attachment areas, measured by the AAI and the RQ overlap, was reviewed by Bartholomew and Shaver (1998). They found evidence to suggest that there may be core relational tendencies underlying the responses to the various attachment measures and that an individual's specific attachment patterns could be substantially different across different areas, e.g., parenting or close adult relationships. This implies that the choice of measure should be dependent on the attachment domain being investigated, to be optimally powerful in predicting outcome (Bartholomew & Shaver, 1998).

One difficulty with the previous research has been that the measures provide categorical data. Fraley and Waller (1998) reviewed the current research on the nature of adult attachment styles and they concluded that the evidence suggests that attachment styles are dimensional, rather than categorical. The analysis for categorical data requires relatively high numbers of participants from each category, to have sufficient power to detect differences. A recent development is the Experiences in Close Relationships Inventory (Brennan & Shaver, 1998),

which measures the extent of attachment avoidance and anxiety, from which an individual's attachment styles can be calculated. This will allow for the investigation of the degree attachment avoidance and anxiety in areas where there are only small numbers of participants.

### 1.3.2 Secure Attachment Style

A secure adult attachment style appears to provide the resources to attend flexibly and non-defensively to the interpersonal world. Aspects of experience are not habitually shut out to maintain a certain view of relationships. Nor are earlier difficulties experienced as so overwhelming that the individual cannot achieve some distance from them. Furthermore, adults with a secure attachment appear to expect others to be available for them (Koback & Sceery, 1988). This leads them to engage in behaviours that maintain rewarding interpersonal involvement, which confirms their expectations of others and themselves, perpetuating positive internal working models (Bartholomew & Horowitz, 1991).

### 1.3.3 Insecure Attachment Style

Adults with an insecure attachment style have not internalised either the idea that they are loved or loveable, or the idea that others are available and caring, or both. This pattern is maintained through the associated strategies for dealing with the insecurity, including interacting in either overly distancing or overly demanding ways, which push others away (Kobak & Sceery, 1988). Thus an insecure attachment style is not conducive to the development of supportive and rewarding relationships. An absence or lack of supportive relationships has been strongly associated with psychopathology and physical breakdown (e.g., Brown & Harris, 1978, Dozier, Harris & Bergman, 1987).

Since the development of adult attachment measures, normative and clinical data has been gathering. However, both normative and clinical populations have been predominantly from Western countries. Studies of attachment styles in Asia would further the understanding of cultural influences on attachment styles (Van IJzendoorn & Kroonenberg, 1988). However, initial cross-cultural studies have found that intracultural differences are greater than intercultural differences (Van IJzendoorn & Kroonenberg, 1988). Table 1.3.3a shows the distributions of attachment styles across a range of general populations. These studies show fairly consistent distributions, even though they are based on the different methods of measurement described previously.

**Table 1.3.3a: Percentage Distributions of Adult Attachment Styles in Non-Clinical Populations**

Author(s)	Sample	Secure %	Preoccupied %	Dismissing %	Fearful %	Cannot classify/ Unresolved.
Hazen & Shaver (1987) RAQ	US General population	55	20	25 (avoidant)		
Feeney & Noller (1992) RAQ	Australian Students	55	15	30 (avoidant)		
Sack et al (1996) RAQ	US College students	67	8	25 (avoidant)		
Klohn & Bera (1998) RAQ	USA 52 year old women	70	5	25 (avoidant)		
Mickelson et al, (1997) RAQ	US 45-54 year old women	59	11	25 (avoidant)		5
Bartholomew & Horowitz (1991) RQ	US General population	49	12	21	18	
Brennan et al, (1998) ECRI	US college students	30.4	24.4	20.8	24.4	
Fonagy, Steele & Steele (1991) AAI	UK sample	58	12	22 (dismissing)		8
Van IJzendoorn & Bakermans-Kranenburg (1996) AAI – meta analysis (Western Countries)	Normal fathers	57	11	15 (dismissing)		17
	Normal mothers	55	9	16 (dismissing)		19
	Normal, low SES adults	39	8	25 (dismissing)		28

RAQ = Relationship attachment questionnaire (Hazan & Shaver, 1987); RQ = Relationship Questionnaire (Bartholomew & Horowitz, 1991); AAI = adult attachment interview (George et al, 1985); ECRI = Experiences in close relationships inventory (Brennan et al, 1998); SES socio-economic status.

Many studies have examined adult attachment styles in a range of at risk and clinical populations, which can be seen in table 1.3.3b. These studies have generally found significantly more insecure attachment styles than in general populations.

**Table 1.3.3b: Percentage Distributions of Adult Attachment Styles in Clinical Populations**

Author(s) and Method	Sample	Secure %	Preoccupied %	Dismissing %	Fearful %	Cannot Classify / unresolved %
Sperling, Sharp & Fisher (1991) own measure. USA	Borderline patients	33	29	9 (hostile)	29 (avoidant)	
Patrick et al (1994) AAI	Borderline patients	0	100	0		
Stalker & Davis, (1995) AAI, Canada	Women with a history of CSA	12.5	67.5	20 (dismissing)		
Van IJendoorn & Bakermans-Kransburg (1996) AAI, Western Countries	Combined clinical sample	6	29	26 (dismissing)		39
Stalker & Davies (1998) AAI, Canada	Women with histories of CSA, currently in treatment.	10	12.5	10 (Dismissing)		40
McCarthy & Taylor (1999) RAQ, USA	Women with child histories of poor parenting	44	15	41 (avoidant)		
Sack et al (1996) RAQ, USA	PD	9	23	68 (avoidant)		
Alexander (1993) RQ, USA	Women with histories of childhood incest	14	13	16	58	
Ward, Hudson & Marshall (1996) RQ, Canada	Male sex offenders	21	12	35	33	
Van IJendoorn et al (1997) AAI, Holland.	Male PD offenders	5	20	22 (dismissing)		53

RQ = Relationship Questionnaire (Bartholomew & Horowitz, 1991); RAQ = Relationship attachment questionnaire (Hazan & Shaver, 1987); AAI = adult attachment interview (George et al, 1985).

The studies included in table 1.3.3b which have examined adult attachment styles in participants with personality disorders and participants who report childhood abuse, have found predominantly insecure attachment styles. Studies (Alexander, 1993; Van IJzendoorn & Bakermans-Kranenburg, 1996; Stalker & Davies, 1998) which have used the four attachment categories, have found higher rates of the fearful and preoccupied attachment styles than is typically found in general adult populations. The studies which have used the three attachment categories, may have initially confused the pattern of findings, as individuals who were classified as avoidant, may in fact have been either fearful or dismissive (McCarthy & Taylor, 1999; Sack et al, 1996).

It may be that the fearful/cannot classify and preoccupied adult attachment styles are classified as personality disorders when the behavioural manifestation of these styles results in distress or difficulties to the individual or others. Furthermore, the fearful/cannot classify and preoccupied attachment styles are consistent with childhood abuse, which takes place within the context of a relationship and can have long lasting effects on interpersonal relationships (Finkelhor, 1989). As before, these difficulties become labelled as personality disorders when they are seen as being outside the norm of the individual's culture, long-standing, rigid and cause difficulties.

#### 1.3.4 Stability of Adult Attachment Styles

Bowlby (1969) hypothesised that internal working models would be fairly stable. Changes in attachment styles have been shown to be related to new experiences, which have disconfirmed earlier internal working models. For instance, Egeland, Jacobvitz and Sroufe (1988) found that women who did not perpetuate the cycle of abuse were more likely to have spouses or therapists who had been important secure attachment figures. Furthermore changes in children's attachment styles have been shown to be caused by changes in parental

availability, which in turn were related to changes in life stresses for parents (Erickson et al, 1985; Vaughn, Egeland, Sroufe & Waters, 1979)

Although there have been many studies into adult attachment styles, the majority of the research has been cross-sectional, focused on either college or clinical populations. One notable exception to this is Klohnen and Bera (1998), who examined adult attachment styles using Hazen and Shaver's (1987) three category measure, in 52 year old women, who were part of the 31 year Mills longitudinal life path/relationship study (e.g., Helson & Wink, 1992). Klohnen and Bera (1998) found that the distribution across the three attachment styles was fairly consistent with those found in previous studies, although there was a high frequency of secure attachment styles, as can be seen in table 1.3.3a. The study focused on participants classified as secure and avoidant, due to the low number of those classified as preoccupied.

Klohnen and Bera (1998) found that avoidantly attached women scored significantly lower on interpersonal closeness and social confidence and significantly higher on emotional distance, self-reliance and distrust, than securely attached women. No change across these areas were found for either group over 25 years and they concluded that the two groups had distinct internal working models in midlife, when the attachment style was obtained and that these differences existed up to 25 years earlier.

These differences were found to reflect robust psychosocial differences. Avoidant women were found to be significantly less committed to marriage and family at age 21 and less likely to be married or reported significantly more marital tension due to themselves at age 27, than secure women. When examining personality variables at ages 21 and 43, Klohnen and Bera (1998) reported that avoidantly and securely attached women tended to maintain their relative positions across the two assessment periods, according to independent observations.

Klohnen and Bera (1998) found that the early loss of a parent significantly predicted avoidant attachment at midlife. Avoidantly attached women had, at age 21, reported significantly higher perceived parent-child conflict, including open conflict, less closeness and a generally unpleasant atmosphere, than securely attached women. They concluded that early differences in rearing environment could have long lasting effects on later-life attachment styles. These results from a longitudinal study are highly consistent with findings from cross-sectional studies of adult attachment styles, current relationship functioning and childhood experiences (e.g., Belsky et al, 1984; Collins & Read, 1990; Hazen & Shaver, 1987; Shaver & Hazen, 1993; Simpson, 1990).

Klohnen and Bera's (1998) findings allowed for reliable statements about sample effects, however they did not highlight those individuals who had not followed the typical trend. Klohnen and Bera (1998) stated that while some individuals showed consistency over time, others showed marked change in their ratings across the 25-year period. This highlights that, while attachment styles can have long lasting influence, change does occur. As mentioned previously, there is initial evidence to suggest that change in attachment style and related behaviour follows significant change in life circumstances or experiences (Egeland et al, 1988; Vaughn et al, 1979), further research in this area is needed.

Although Klohnen and Bera (1998) acknowledge that a limitation of their study was that it focused on women, they cited initial evidence to suggest that their findings can be generalised to men (Koback & Sceery, 1988). Further limitations include the measurement of attachment style at the end of the study only and that the study was restricted to secure and avoidant attachment styles. Further research is required to investigate whether ambivalent (preoccupied) adult attachment styles are associated with the same degree of stability and influence on interpersonal outcomes.

### 1.3.5 Adult Attachment Styles and Childhood Experiences

While the effects of childhood adversity and abuse have been fairly well documented (e.g., Briere, 1992, 1996; Watkins & Bentovim, 1992), there is still little understanding of why only certain individuals go on to have significant difficulties in later life (Alexander, 1992).

Attachment theory provides a framework for understanding how childhood experiences may exert long term effects on an individual's life, how these are maintained and how they can change.

Recently there have been a number of studies, which have examined mediating variables between CSA and later adult psychological adjustment (e.g., Conte & Schuerman, 1987; Runtz & Schallow, 1997). One area, which has begun to receive attention, is interpersonal relationships as a mediating variable (Runtz & Schallow, 1997). It has been argued that because CSA occurs within the context of relationships, it can cause a disruption in the normal process of learning to trust, act autonomously and form stable secure relationships (Elliott, 1994).

Alexander (1992) reviewed attachment relationships as mediators of the long-term effects of child sexual abuse (CSA). She concluded that attachment history, in particular the actual relationships at the time of the abuse, appear to exert a direct influence on mediating the long-term effects of CSA. Three general areas were identified: subsequent intimate relationships, with both partner and own child; the development of disturbances in intrapsychic strategies for dealing with attachment-related anxieties; and disturbances of self (Alexander, 1992). These areas are similar to those highlighted as the core features of personality disorder.

A few studies have investigated childhood factors and adult attachment orientations and the results have been mixed (Stalker & Davis, 1995, 1998; Klohnen & Bera, 1998; McCarthy & Taylor, 1999; Roche, Runtz & Hunter, 1999). As described previously, Klohnen and Bera (1998) found that an early loss of a parent from death and a high degree of perceived child-parent conflict as rated by the participants at age 21, predicted adult attachment style at age 52. They concluded that these early experiences and the considerable long-term continuity of a wide range of attachment-related behaviours and experiences in adulthood, highlighted the powerful effects of attachment processes on interpersonal functioning across the life span.

Stalker and Davis (1995) found that in a sample of women with histories of CSA, 67.5 percent were rated as preoccupied on the adult attachment interview and that for 84 percent of the preoccupied group, this was the best fitting alternative to the unresolved classification. In a later study, Stalker and Davies (1998) found that 60 percent of women, who were receiving psychiatric treatment for CSA, were classified as either 'unresolved' in respect to previous trauma or as 'cannot classify' showing a distinct mixture of insecure attachment patterns, mainly dismissing and preoccupied. Stalker and Davis (1998) also noted that out of the 24 women who were classified as 'unresolved', 22 met the criteria for various personality disorders.

McCarthy and Taylor (1999) found that abusive childhood experiences were significantly associated with avoidant and ambivalent attachment patterns, which in turn were significantly associated with difficulties in intimate adult relationships. When these relationships were controlled for, only the relationship between the attachment patterns and difficulties in adult intimate relationships was significant. McCarthy and Taylor, (1999) suggested that child abuse may increase the risk of developing an attachment style characterised by high levels of both avoidant and ambivalent attachment behaviours. This combination of avoidance and

ambivalence is consistent with findings that maltreated children tend to have a disorganised attachment style (e.g. Lyons-Ruth, 1996).

McCarthy and Taylor (1999) used Hazan and Shaver's (1987) three-category measure. It is possible that had they used the four-category measure, the combination of avoidant and ambivalent attachment behaviours may have been identified as the fearful attachment style. It would also have been beneficial to have examined participant's recollections of their relationship with their parents, to investigate possible consistencies with the child attachment research.

Roche, et al (1999) examined adult attachment style using the Relationship Questionnaire (Bartholomew & Horowitz, 1991), as a possible mediator between CSA and adult psychological functioning. They found that CSA predicted both adult attachment style and psychological adjustment, and that attachment style predicted psychological adjustment. Further analyses showed that when the effects of CSA were partialled out, attachment style continued to predict psychological functioning, whereas CSA no longer predicted psychological adjustment when attachment style was partialled out. These results were independent of age and marital status (Roche et al, 1999).

Roche, et al (1999) found that significantly different patterns of adult psychological functioning were related to the following three categories: no abuse; intrafamilial abuse; extrafamilial abuse. They found that women who had not suffered CSA reported significantly better psychological functioning than women with a history of CSA and women who had suffered intrafamilial abuse reported significantly more difficulties than those women who were abused by a non-family member (Roche et al, 1999).

Roche et al (1999) found that women who had not suffered CSA were the most secure and least fearful. Women who had suffered extrafamilial abuse were less secure and displayed more dismissing attachment styles, reflecting a more negative model of others. Women who had suffered intrafamilial abuse were the least secure and displayed more fearful and preoccupied attachment styles, reflecting a more negative sense of self.

The degree to which Roche, et al's (1999) results are generalisable to a clinical population is limited, as their participants were all undergraduates, indicating at least a reasonable level of functioning. However, as Roche et al (1999) pointed out, it is likely that the relationships will be stronger in clinical populations. It is also important to include information on childhood experiences of care as well as CSA. This would allow the impacts of the type of care and CSA and any interaction between them to be investigated.

### 1.3.6 Summary

Research into adult attachment styles of general, at risk and clinical populations have shown that insecure attachment styles predominate in at risk and clinical populations. Longitudinal research suggests that attachment styles can be very stable (Klohn & Bera, 1998).

Furthermore, research has found that retrospective recollections of childhood experiences associated with adult attachment styles has been found to be generally consistent with those found to be associated with child attachment styles. This area of research indicates that the development of internal working models about self and others can influence later development, including the development of psychopathology. The next section examines the current research on personality disorders from an attachment perspective.

## **1.4 Adult Attachments and Personality Disorder**

Consideration of psychopathology was integral to the development of attachment theory (Bowlby, 1944). However it is only relatively recently that research into attachment in adults with psychopathology has emerged again. This re-emergence has coincided with a rapid growth in empirical evidence that personality disorders (PDs) are primarily disturbances of interpersonal relatedness (e.g., McLemore & Brokaw, 1987; Widiger & Frances, 1985). Interpersonal traits figure prominently in all diagnostic criteria for PD (West, Rose & Sheldon-Keller, 1995; Widiger & Frances 1985). Research in this area has been extended by examining PD from an attachment theory perspective (e.g. Brennan & Shaver, 1998; Melges & Schwartz, 1989). Studies have found empirical evidence of the importance of attachment to the understanding of personality disorder (e.g., West, Rose & Sheldon-Keller, 1994; Van IJzendoorn et al, 1997).

Brennan and Shaver (1998) highlighted how some PDs are characterised by patterns of disordered cognitions, such as schizotypal and obsessive-compulsive disorder and that others are characterised by problems of emotions, such as histrionic, borderline and antisocial disorders. This resembles Crittenden's (1995) proposal that: an avoidant attachment style reflects a reliance on cognition rather than affect; an ambivalent attachment style reflects a reliance on affect rather than cognition; and a secure attachment style reflects a balance in which cognition and affect have equal weight. Is it possible that PD reflects the extremes of this balance, whereas a well-integrated personality relies on an equal balance between cognition and affect?

West, Rose and Sheldon-Keller (1994: p. 250) suggested that the dysfunctional interpersonal styles underlying PD, may have their origins in *'repeated adverse family interactions that posed a relentless threat to the consistent availability of parental care and emotional support'*. They further suggest that for adults with PD, the continued failure to achieve felt security reinforces their negative beliefs about attachment figures and themselves. These 'affectively charged' beliefs form the basis of their internal working models, which influences their interpersonal behaviour. These hypotheses have gained considerable support from the research into childhood experiences of individuals with PDs and from the research on experiences associated with the child and adult insecure attachment styles, as described in the previous sections.

#### 1.4.1 Borderline Personality Disorder (BPD)

Reviews of the research have concluded that having unstable and intense relationships is one of the most sensitive diagnostic criteria for and a key symptom of BPD (e.g., Dahl, 1990; Sperling, Sharp & Fishler, 1991). For instance, Melges and Swartz (1989) stated that the problem of regulation of interpersonal disturbance is at the core of borderline personality disorder. Sack et al, (1996) described the primary features of BPD as *'maladaptive interpersonal relations, especially intense, unstable relationships with oscillations between idealisation and devaluation'*.

Sperling et al, (1991), used their own self-report measure, the Attachment Style Inventory (Sperling & Berman, 1991) to assess attachment styles (dependent, avoidant, resistant/ambivalent and hostile). They found that borderline patients manifested greater insecure friendships and intimate attachments than a normal sample, and had predominantly a resistant/ambivalent attachment style. Sperling et al (1991) concluded this was compatible

with the splitting and affective extremes associated with borderline patterns of relatedness. This is consistent with the findings of other studies (e.g., Sack et al, 1996; Patrick et al, 1994).

West, Keller, Links and Patrick (1993) found that a high level of feared loss and a low sense of a secure base, manifesting in an oscillation between a combination of compulsive care seeking and angry withdrawal, were most characteristic of a group of female outpatients with BPD. Furthermore, feared loss was found to distinguish female borderline outpatients from female outpatients with other PDs and those without PD. West et al (1993) also found that scales measuring more global interpersonal/social functioning including; age; marital status; and mental health did not differentiate between degrees of severity of BPD. West et al (1993) suggested that these results demonstrate that criteria specific to adult attachment can provide a clinically useful description of the interpersonal problems of female borderline patients.

Patrick et al, (1994) compared borderline participants with individuals with dysthymia. They argued that this control group might prove to be comparable to the borderline group in terms of current depressive mood, which could significantly influence participant's reports of childhood histories, thus excluding a potential confounding variable. Patrick et al (1994) found that the participants with BPD reported significantly lower maternal care and higher maternal overprotection. All of the borderline participants were classified as having a preoccupied adult attachment style on the AAI, which was significantly different from that found in a group of dysthymic participants.

Patrick et al (1994) also found that there was little difference between the two groups in terms of the severity of the trauma reported. However, the context within which the trauma occurred was not assessed and this could represent one of several factors, which may explain

the different presentations of distress. For instance, the poor childhood attachments of BPD patients may render trauma more likely to exert a lasting effect, as there was a lack of support to facilitate the recovery from the psychological disturbance caused by the trauma (Sabo, 1997).

Livesley, Schroeder and Jackson (1990) found two factors, labelled 'insecure attachment' and 'dependency' accounted for 71% of the variance in a borderline sample. This appears to correspond with the two underlying attachment dimensions, anxiety and avoidance (Bartholomew, 1990; Brennan et al, 1998).

Overall the studies suggest that individuals with BPD are more likely to be classified as having a preoccupied adult attachment style, indicating internal working models of themselves as not worthy of love and care, and of others as able to provide love and care. However, insecure attachments have been found in psychiatric outpatients without BPD (West et al, 1993), indicating that insecure attachments may be a potential risk factor for psychopathology in general.

#### 1.4.2 Dependent Personality Disorder (DPD)

Livesley et al, (1990) found that a group of selected psychiatrists identified two dimensions labelled insecure attachment and dependency, underlying the salient characteristics of DPD as defined in the literature. These underlying dimensions appear to be the same as the attachment dimensions identified by Brennan et al (1998), anxiety and avoidance respectively. Livesley, et al (1990) concluded that insecure attachment is an important causal factor in the development of DPD.

West et al (1994) found that participants with DPD had significantly higher scores on a compulsive care seeking attachment style and that participants with schizoid PD reported significantly higher scores on a compulsive self-reliance attachment style. They concluded that insecure attachment patterns offer a clinically useful system for characterising the different interpersonal difficulties of DPD and schizoid PD.

The results of these studies can also be examined in terms of indicating the likely content of individual's internal working models. It is likely that the dependency and attachment behaviours associated with DPD reflect negative core beliefs about the self, and positive core beliefs about others. These beliefs then manifest as a fear of rejection and abandonment and a need to be looked after. This description is consistent with a preoccupied adult attachment style (Bartholomew & Horowitz, 1991), where the individual relies predominantly on compulsive compliance and angry withdrawal as means of ensuring the attachment figures continued availability.

#### 1.4.3 Schizoid Personality Disorder (SPD)

Paterson and Moran (1988) proposed that compulsively self-reliant individuals have lost hope of finding an adequate attachment figure, avoid close relationships because of their fear of attachments and anticipated consequences, and that this description suggests the DSM-III-R diagnosis of SPD. West et al (1994) proposed that individuals with SPD have an internal working model of others as not providing support and therefore they can only rely on themselves to provide security.

Since these hypothesis were put forward, some initial evidence has emerged. Livesley (1987) found that clinicians considered an avoidant attachment to be a typical feature of SPD. As described previously, West et al (1994) found that patients with SPD reported significantly higher compulsive self-reliance than patients with DPD and a control group. These findings suggest a dismissing or a fearful attachment style. However, further research in this area is required before any conclusions can be drawn.

#### 1.4.4 Avoidant Personality Disorder (APD)

It has been proposed that APD is characterised by social withdrawal (Trull, Widiger & Frances, 1987; Livesley, Jackson & Schroeder, 1992). Literature review and clinical consensus placed avoidant attachment patterns as the second most characteristic feature of APD (Livesley, 1987). Trull et al (1987) found a positive correlation between the avoidant and dependent features, except for social withdrawal. They concluded that this reflected an interpersonal insecurity characteristic of APD and DPD. Furthermore, they suggested that this represented a shared underlying dynamic of feared loss of attachment relationships, with the extent of social withdrawal differentiating APD and DPD.

Although the criterion of desire for affection and acceptance was eliminated from the definition of APD in the DSM-III-R, Sheldon and West (1990) showed that the desire for and fear of an attachment relationship were more characteristic of APD, than either lack of social skills or social discomfort. Furthermore, they found that attachment security was distinct from general sociability.

West, Rose and Sheldon-Keller (1995) assessed avoidant attachment style in individuals with APD, using their own avoidant attachment questionnaire (AAQ: West & Sheldon-Keller, 1994). West et al (1995) found that the 'desire for affectional bonds' did not differentiate between avoidant, schizoid and other PDs. However, they did find that, 'maintaining distance in relationships', 'high priority on self-sufficiency' and 'attachment relationship is a threat to security,' differentiated schizoid and avoidant PDs from the other PDs. West and colleagues (1995) concluded that it is the tension between wanting an attachment relationship and its threat to their security that lies at the heart of SPD and APD. This is suggestive of fearful and possibly dismissing adult attachment styles.

#### 1.4.5 Antisocial Personality Disorder (ASPD)

Sheldon and West (1990) found that ASPD was characterised more by a desire for and fear of, attachment relationships, than by poor social skills and that attachment difficulties were independent of general social skills. This combination of a desire for and fear of attachment relationships is characteristic of preoccupied and fearful attachment styles. These results suggest that attachment difficulties, rather than difficulties with interpersonal skills, are a key feature in ASPD, although more research is needed in this area.

#### 1.4.6 Other Personality Disorders

Brennan and Shaver (1998) examined the links between adult romantic relationships, DSM-III-R (APA, 1987) PDs and three childhood variables, in a large sample of college students, using self-report measures of PD and attachment style. In their sample 75 percent reported at least one PD. They found that securely attachment individuals were least likely to

have a PD and individuals with a fearful attachment style were most likely to have a PD. Individuals with a preoccupied attachment style were more likely to have a PD than those with a dismissing attachment style. Furthermore, Brennan and Shaver (1998) found that while all attachment styles were represented across all 13 PDs, certain attachment styles were more frequent with certain PDs. In particular, the fearful attachment style was associated more with schizotypal, paranoid, avoidant, self-defeating, narcissistic, borderline and antisocial PDs. The preoccupied attachment style was associated more with dependent and self-defeating PDs and the dismissing attachment style was associated more with schizoid PD. The secure attachment style was associated more with histrionic PD. Sadistic PD was fairly evenly distributed across the four attachment styles.

This study provides evidence of the association between attachment and PD in a normal sample, which is fairly consistent with findings from clinical populations. The limitations of this study include the relatively young age (mean = 18 years) and the reliance on a single self-report measure for both PD and attachment style. Furthermore, they used DSM-III-R (APA, 1987), even though DSM-IV (APA, 1994) had been available for some time. Seventy five percent of their sample reported at least one PD. However when the sample was reclassified using more stringent scoring which focused on the PDs resulting in distress for the individual, approximately 11 percent of the sample were classified as having PD, which is consistent with previous prevalence figures. However, Brennan and Shaver (1998) stated that this did not alter the pattern of the results.

#### 1.4.7 Adult Attachment Styles in Forensic Populations with Personality Disorder

There has been very little research examining adult attachment styles and PD with people from forensic populations. West, Rose, McDonald and Hashman (1996) assessed a range of factors contributing to an insecure attachment, using the Reciprocal Attachment Questionnaire (West, Sheldon & Reiffer, 1987) in borderline forensic outpatients and forensic outpatients with features of both avoidant and schizoid PD. They found that the borderline group had a distinctive attachment organisation, consisting of high scores on separation protest and feared loss of the attachment figure. West et al (1996) suggested that this pattern of insecure attachment is the underlying dynamic of borderline pathology in BPD forensic patients and reflects the individual's defensive response to their inability to experience a secure attachment relationship. These results are consistent with those found in studies of clinical non-forensic populations and suggest a preoccupied adult attachment style (e.g., Sack et al, 1996).

Van IJzendoorn et al, (1997) examined attachment representations using the AAI in adult men with PD, who had committed serious criminal offences. They found that the autonomous (secure) attachment style was significantly underrepresented, and the unresolved and cannot classify categories were strongly overrepresented, compared to a non-clinical sample. However the distribution of this forensic sample was not significantly different from a combined clinical sample and Van IJzendoorn et al (1997) concluded that attachment insecurity may be a general mental health risk factor, rather than a specific determinant of severe criminal behaviour. Van IJzendoorn et al (1997) also found that the total number of PD symptoms was significantly related to attachment insecurity; in particular, that participants identified as having a 'cannot classify' adult attachment style contained the most PDs and that this category seemed to represent the most personality disturbance. This is consistent with the results of the Brennan et al (1998) study.

Van IJzendoorn et al (1997) found that the majority of men in the cluster C PDs were classified as demonstrating a preoccupied adult attachment style. Furthermore, men with less severe personality disturbance tended to have dismissing adult attachment styles. Individuals with a dismissing attachment style generally minimise any relationship difficulties and the importance of relationships and therefore would not necessarily report many of the diagnostic criteria of PD.

#### 1.4.8 Adult Attachment Styles in Forensic Populations

Recent studies have begun to explore attachment styles within general forensic populations. There is growing evidence that sexual offenders report significantly more insecure attachments than non-sexual offenders (Ward, Hudson & Marshall, 1996; Smallbone & Dadds, 1998).

Ward, Hudson and Marshall, (1996) found that child molesters were more likely to report preoccupied or fearful attachment styles; that rapists and violent offenders were more likely to report dismissing attachments; and non-violent non-sexual offenders were more likely to report secure attachments. Smallbone and Dadds (1998) found that sex offenders reported significantly less secure parental attachments styles than non-sex offenders. Hudson and Ward (1997) found that attachment styles were not related to age, length of time since first conviction, or sentence length in a forensic sample.

Hudson and Ward (1997) examined the relationship of loneliness, fear of intimacy, anger and hostile attitudes towards women (dependent variables) with the independent variables of offender type (child molesters, rapists, violent and non-violent offenders) and adult attachment style (secure, preoccupied and dismissive). They found no relationship between

the dependent variables and offender type, with the exception of anger. However, significant relationships were found between adult attachment style and all the dependent measures.

Hudson and Ward (1997) suggested that, as the relationship between the dependent variables and attachment style seemed more fundamental than between offender type and the dependent variables, there may be more utility in categorising by attachment style rather than offence.

#### 1.4.9 Adult Attachment Styles, Personality Disorder and Childhood Experiences of Parenting

Only a few studies have examined both adult attachment styles and childhood experiences of parenting in adults diagnosed with PDs. Brennan and Shaver (1998) found that attachment style and PDs were both associated with parental death and current representations of childhood relationships with parents. In particular, secure participants reported more parental acceptance, parents who fostered independence, and more idealisation of both parents, than preoccupied and fearful participants. The preoccupied group reported equally negative relationships with both parents, while the fearful group reported negative father and more negative mother. They also found that, while the dismissing group reported parental rejection, they also displayed the same level of idealisation of parents as the secure group. Their sample consisted of males and females and no gender differences were found. However they sampled college students, who were relatively young, which may limit the extent to which their findings can be generalised.

Van IJzendoorn et al (1997) in a sample of PD offenders, found that only child-rearing history, gathered from clinical records, made a difference on a continuous AAI insecurity scale, compared to age when detained, hospital they reside in or degree to which they had previously experienced psychotherapy. Furthermore, it was found that participants with a

history of discontinuous and institutionalised child-rearing experiences were more insecure than subjects who had more stable backgrounds and who were raised in families.

Wekerle and Wolfe (1998), in a sample of offenders, found that child maltreatment was significantly associated with: avoidant attachment style; ambivalent attachment style; conflict in close relationships; offender abuse; offender negative communication; and victim abuse. Wekerle and Wolfe (1998) concluded that childhood maltreatment is an important risk factor for offending behaviours in close relationships for males and this risk is significantly increased if male adolescents rate themselves as either highly ambivalent or highly avoidant in attachment style. The main limitation of Wekerle and Wolfe's (1998) study is the use of Hazen and Shaver's 1987 three-category model of attachment styles. Wekerle and Wolfe (1998) stated that had the Hazen and Shaver (1987) model included the disorganised attachment style, further significant results may have emerged.

#### 1.4.10 Summary

The research has shown that insecure adult attachments are consistently associated with PD and the results suggest that specific PDs differ on the two underlying attachment dimensions (Brennan et al, 1998). In particular, the research has so far found considerable evidence that a preoccupied adult attachment style is strongly associated with BPD. There is initial evidence that DPD is also associated with a preoccupied attachment style. Research has also found initial evidence to suggest that schizoid, avoidant and antisocial PDs are associated with fearful adult attachment style. Furthermore, initial evidence suggests that more severe disturbances in personality are associated with the disorganised (and therefore possibly the fearful) adult attachment style, which is consistent with studies of at risk and clinical child populations. Although, patterns have been identified between specific personality disorders

and adult attachment styles, a clear overlap between PD classification and attachment styles has not been identified. This may be due to the difficulties in the current classification system for PD, as highlighted at the beginning of the introduction. From this perspective, attachment theory may facilitate the development of a more appropriate classification of PD. The previous section has highlighted how attachment theory can refine current understanding of the different PDs and initial work has been started to develop an overall understanding of PD from an adult attachment (Crittenden, 1997).

A limitation of the research is the predominantly female participants, although the small number of studies on men have found similar results. Further research on male PD populations is needed to explore any potential gender differences in attachment styles. A further limitation results from the changing DSM classification of PD. Although DSM-IV has been published since 1994, some of the subsequent studies have used DSM-III-R (APA, 1987). This highlights the ongoing debate as to the number and types of specific PDs and the criteria for each PD. A further limitation is the selection of participants in the majority of studies cited above, where participants have been carefully selected so that they have only one specific PD or predominantly display one specific PD. However, as stated previously, the majority of people diagnosed with PD, are classified as having several PDs. This may limit the generalisability of those findings.

Several different methods have been used to assess the adult attachments of people with PD. It appears that several researchers in the PD field have developed their own questionnaires, from Bowlby's original work (e.g. Sperling & Berman, 1991; West et al, 1994) and do not appear to be aware of the developments in attachment theory, in both clinical and social psychology fields. This has had a positive outcome, as fairly consistent results have been found, across different assessment measures. However, the disadvantages include the

development of different conceptualisations of insecure adult attachment styles in isolation, making it more difficult to compare between studies within the same area and to share developments across different fields of research.

A consistent framework for evaluating adult attachment patterns, which includes hypotheses about the underlying internal working models, would contribute considerably to the understanding of PD (West et al, 1993). Also, given the validity difficulties with the current classification of PD, attachment theory may lead to a greater understanding of this area (Livesley et al, 1990). This may be facilitated by the recent development of Brennan et al's (1998) meta-questionnaire to assess adult attachment styles. This questionnaire provides scores on the two underlying attachment dimensions, from which the attachment categories are calculated. This dimensional measure will enable researchers to investigate specialist populations which have small sample sizes

### **1.5 Clinical Implications**

The application of attachment theory to PD has furthered the understanding of the core features of this disorder and of how childhood experiences may influence development of PD (Alexander, 1992, 1993). This is likely to lead to increases in the validity and reliability of diagnosis and the understanding of its aetiology, which, in turn may provide further treatment options.

Initial studies have found that attachment style mediates between childhood abuse and later psychological functioning (e.g., Alexander, 1993). This contributes to the current understanding of how only some people who have experienced child abuse go on to develop mental health difficulties. Furthermore, this highlights opportunities for therapeutic

interventions, through the development of a secure attachment to the therapist, within which to facilitate the exploration of the patient's attachment style and underlying models of self and others.

Studies have suggested that PDs may be responsive to treatment approaches, which take account of attachment needs, behaviours and bonds (West et al, 1996). It has been suggested that a therapeutic relationship between staff and patients may be compared to the development of an attachment relationship, within which childhood attachment patterns are likely to be replicated (Bowlby, 1988; Adshead, 1998). Adshead (1998) concluded that assessing the childhood attachment histories of people with PD would provide a meaningful understanding of their current behaviour and guide treatment. This may also inform the understanding of attachment organisation more generally (Dozier, 1990).

A few studies have found that individuals with specific attachment styles show different responses to treatment (Dozier, 1990; Van IJzendoorn et al, 1997). Dozier (1990) found that a high degree of preoccupation was significantly correlated with less use of treatment and that the secure/anxious dimension was not significantly correlated with use of treatment. Dozier (1990) concluded that the results suggested a link between internal representations of attachment figures and actual approaches to attachment figures. Sack et al, (1996) found that there was no significant correlation between the patient's and the therapist's ratings of the patient's attachment style within the therapeutic relationship.

Hudson and Ward (1997) proposed that there may be more utility in using attachment style as a categorising variable, rather than offending type. They suggested that an attachment approach to treatment of offenders could offer possible enhancement of interventions by clarifying offender's long-term interpersonal strategies as well as their implicit views of others. This could equally apply to offenders diagnosed with personality disorders.

## **1.6 Rationale**

Research has found strong empirical evidence that disturbances in interpersonal relationships and a sense of self are core features of PD. Attachment theory has furthered the understanding of this area by providing an empirically based theory of personal relationships, which suggests the meaning of these disturbances (e.g., negative models of self and others), possible etiological factors and interventions. Furthermore, research into the factors influencing the development of attachment styles in both children and adults has provided suggestions of how childhood experiences can contribute to the development of PD.

The application of attachment theory to people within a forensic population, with and without PD, has just begun. Attachment theory offers the potential of contributing to the understanding in this area, in particular where people have committed offences which are relationship based, e.g., violence towards self or another person. Attachment theory also offers the potential to further the understanding of the links between childhood experiences and this type of offending, through the development of internal working models and affect regulation.

This study aims to investigate the adult attachment styles and childhood experiences of men diagnosed with PD, who have been detained in a high security psychiatric hospital for committing serious criminal offences. This sample was selected because they represent a group of individuals with a relatively clear diagnosis of PD.

This sample has clear attachment figures, for example, named nurses, psychologists and psychiatrists. These professionals have varying degrees of influence over the participants' treatment, release and day-to-day life, indicating a large power difference within the

relationship. Furthermore, participants are expected to have weekly individual sessions with their named nurses, covering such issues as thoughts and feelings related to offending, relationships with other patients and staff, etc. The relationship between participants and their named nurses have the potential to be very close, depending on the attachment style of both the participant and the named nurse. This highlights the clinical relevance of attachment theory to understanding, treatment and care of the client group in this study.

## **1.7 Research Hypotheses**

The aim of this study is to investigate the links between three areas: personality disorder; adult attachment styles and childhood experiences of parenting, in men diagnosed with personality disorder and detained in an English high security psychiatric hospital. These participants are a highly selected group with severe personality disorders.

### **1.7.1 Hypothesis One**

It is hypothesised that predominantly insecure attachment styles will be found within this group of participants, compared to the distribution found in non-clinical populations, which has been reported in the literature.

### **1.7.2 Hypothesis Two**

The second aim of this study is to explore any associations between the degree of personality disturbance and degree of insecure attachment.

*Hypothesis Two a* It is hypothesised that more severe personality disturbance will be associated with high scores on one or both of the attachment dimensions.

*Hypothesis Two b* It is hypothesised that cluster A PDs will be associated with attachment avoidance, cluster B PD will be associated with attachment anxiety and cluster C PD will be associated with attachment anxiety and avoidance.

### 1.7.3 Hypothesis Three

The third aim of this study is to explore associations between personality disorder and childhood experiences of parenting. It is hypothesised that more severe personality disorder will be associated with more negative childhood experiences of parenting.

### 1.7.4 Hypothesis Four

The fourth aim of this study is to explore associations between childhood experience of parenting and attachment style. It is hypothesised that negative childhood experiences of parenting will be associated with higher scores on one or both of the attachment dimensions.

### 1.7.5 Hypothesis Five

The fifth aim of this study is to explore any associations between adult attachment styles and type of offending. It is hypothesised that there will be specific links between offence type and one or both of the attachment dimensions.

## **2 Method**

### **2.1 Design**

This was a cross-sectional quantitative study, investigating the associations between childhood experiences of parenting, adult attachment styles and personality disorder (PD) in male patients at an English high security psychiatric hospital. The variables included:

- personality disorder type;
- adult attachment style;
- childhood experiences of parenting, in particular: parental physical availability; parental psychological availability; parental attachment behaviour; parental disorder; psychological abuse; physical abuse; sexual abuse.

The data was collected as part of a standard clinical assessment within a specialised Personality Disorder Service.

### **2.2 Participants**

The participants were male patients on the Personality Disorder Service, at an English High Security Psychiatric Hospital. They had all been diagnosed with PD by Consultant Forensic Psychiatrists, before being admitted onto the Personality Disorder Service. The service consists of three wards: an assessment ward; an intensive treatment ward and a rehabilitation ward.

The patients were all detained under the Mental Health Act (1983) as having a psychopathic disorder. In all cases, they have committed a serious criminal offence.

The following demographic information was collected from patient files:

- Age;
- Relationship history;
- Ethnic status;
- Age when first hospitalised
- Length of current stay at the hospital;
- Ward;
- Type(s) of offending history.

There were 35 men on the PD Service at the time of the data collection. All were asked to take part in this part of the assessment process. Thirty-one of the men agreed (88.6%) and completed this part of the assessment process.

The participants ranged in age from 20 to 62 years old, (mean = 38.5, median = 41, S.D. = 11.20). Twelve participants (38.7 %) reported never having had a sexual relationship, 8 participants (25.8 %) reported having had only casual sexual relationships, 6 participants (16.1 %) reported having had stable partners and 6 participants (19.4 %) were or have been married. Twenty seven of the participants (87%) were white, one participant (3.2 %) was black-Caribbean and three participants (14.8 %) were of mixed race. All the participants had been born and brought up in England. The mean length of current detention at the hospital was 8.2 years (S.D. = 7.8 years, range = 0.6 to 25 years). The mean age of participants when first hospitalized was 21.5 years (S.D. = 6.0 years, range = 11 to 40 years). All of the participant's index offences were characterised by violence towards others. Seven participants (22.6 %) have committed violent non-sexual offences against others, 16 participants (48.4 %) have committed sexual offences against adults and 9 participants (29 %) have committed sexual offences against children.

## **2.3 Materials**

### **2.3.1 Personality Disorder**

As mentioned previously, all the patients had been diagnosed with having a PD by a Consultant Forensic Psychiatrist. Further assessment of the type of PD was undertaken to provide dimensional data on the total number of PD symptoms and the number of symptoms for each PD. A self-report measure was chosen due to time constraints. The Personality Diagnostic Questionnaire-4+ (PDQ-4+; Hyler, 1994: appendix seven) was chosen due to its wide use in the literature (Brennan & Shaver, 1998; Dolan, Evans & Norton, 1995) and because it is consistent with DSM-IV (APA, 1994). The construct validity of the PDQ-4+ was assessed through inter-test agreement with the International Personality Disorder Examination-self report version (IPDE; WHO, 1995: appendix eight). Although there is mixed reliability and validity findings for previous versions of the PDQ-4+ and the PDQ-4+, this has generally been in terms of its ability to diagnose PDs. In this study the PDQ-4+ was used to measure the severity of personality disorder.

#### *2.3.1.1 Personality Diagnostic Questionnaire – 4+ (Hyler, 1994)*

The PDQ-4+ is a self-report measure, which assesses personality disorder using the diagnostic criteria from DSM-IV (APA, 1994). It provides dimensional and categorical measures for the 10 personality disorders (paranoid, histrionic, antisocial, obsessive-compulsive, schizoid, narcissistic, avoidant, schizo-typal, borderline, and dependent) and the additional diagnoses of passive-aggressive and depressive personality disorders included in the appendix of DSM-IV.

There have been a number of revisions of the Personality Diagnostic Questionnaire, including the Personality Diagnostic Questionnaire (PDQ: Hyler, Reider, Williams, Spitzer, Hendler & Lyons, 1988), the Personality Diagnostic Questionnaire – Revised (PDQ-R: Hyler & Reider, 1987) and the Personality Diagnostic Questionnaire 4+ (PDQ-4+). Several studies have assessed the reliability and validity of the PDQ and the PDQ-R. The PDQ-4+ was developed partly in response to development of DSM-IV and partly to address reliability and validity difficulties of the PDQ-R. As with all of the previous versions of the PDQ, the PDQ-4+ was developed directly from DSM criteria for diagnosing PD, and therefore has the same degree of face validity as DSM-IV. Studies have found that the PDQ-R has high sensitivity and moderate specificity to most Axis II disorders, using the Structured Clinical Interview for DSM-III-R (APA, 1987) and the Personality Disorder Examination (Loranger, Susman, Oldham & Russakof, 1987) as a bench mark for comparison (Hyler & Rieder, 1987; Hyler, Rieder, Williams, Spitzer, Lyons & Hendler, 1989). These studies were carried out with patients on a residential unit for treatment for severe personality psychopathology. Further studies were carried out with different populations to establish validity (Hyler, Skodol, Oldham, Kellman & Doidge, 1992; Patrick, Links, Van Reekum & Mitton, 1995). Furthermore the PDQ-R has been used to establish norms (Dolan et al, 1995).

Hurt, Hyler and Frances (1984) have shown that the original PDQ has moderate test-retest reliability (mean kappa 0.58) which compares favourably with the inter-rater reliability found for both clinical and semi-structured interviews. Hyler, et al, (1989) reported reasonable internal consistencies ranging from 0.56 – 0.84 for the scales of the PDQ. However, Hunt and Andrews (1992) compared the PDQ-R with the Personality Disorder Examination (PDE: Loranger et al, 1987) and found that, while the PDQ-R had very high sensitivity, it had very low specificity in both a ‘normal’ relatively high functioning sample and an outpatient sample

of people with anxiety. However, as mentioned previously, the participants had all been previously diagnosed with PD, therefore false positives as unlikely in this study.

The PDQ-4+ consists of 99 items, comprising of statements concerning the participant's general thoughts, feelings or actions over the last five or more years. The respondent indicates whether each item is true or false, depending on whether they considered the item to be generally true or generally false as a description of themselves. The PDQ-4+ has three validity scales. The first is a 'too good scale' designed to detect under-reporting. The second is a 'suspect questionnaire' designed to identify individuals who are either lying, responding randomly or not taking the questionnaire seriously. The final validity scale is a clinical significance scale, which is a structured interview administered by the clinician, and investigates whether:

- mistakes were made in endorsing the items;
- the traits have been present since the age of about 18 years, or for the past several years;
- the traits are not primarily due to Axis I conditions, such as anxiety disorder, mood disorder, substance/alcohol abuse, or to a physical condition;
- the traits have caused significant difficulty for the patient at home, work, or within his/her relationships;
- the patient is distressed by the presence of these traits.

Only if these conditions are met, is the PD considered to be clinically significant. The clinical significance scale aims to approximate the diagnosis of structured interviews, with a significant saving of time. The scale also aims to minimize the number of false positives. Previous versions of the PDQ4-+ were found to report a high number of false positives without this additional clinical check (Hyer & Rieder, 1987; Hyer et al, 1989).

*2.3.1.2. International Personality Disorder Examination-Screening Questionnaire (IPDE-SQ: WHO, 1995)*

The IPDE-SQ is a screening questionnaire developed from the International Personality Disorder Examination (IPDE), which is a semi-structured interview to assess personality disorders in the DSM-IV (APA, 1994) and ICD-10 classification systems (WHO, 1993). The IPDE was developed by an international committee of psychiatrists and subject to several pilot trials and an international field trial, (Loranger, Hirschfeld, Sartorius & Regier, 1991).

Reliability and validity is only available for the semi-structured interview. However, the validity of the screening questionnaire can be inferred as it was developed directly from the interview. The validity of the IPDE was acknowledged as difficult in establishing due to the lack of an acceptable gold standard assessment method for personality disorder. The manual (WHO, 1995, p. 22) states that the opinion of most of the clinicians (psychiatrist and clinical psychologists) who participated in the field trial, was that the IPDE was a useful and essentially valid method of assessing PDs for research purposes.

The international field trials of the IPDE found that the reliability and stability were similar to those reported on other psychiatric instruments (Loranger, Sartorius, Andreoli, Berger, Buchheim, Channabasavanna, Coid, Dahl, Diekstra, Ferguson, Jacobsberg, Mombour, Pull, Ono & Regier; 1994). The manual (WHO, 1995, p. 22) states that the screening questionnaire is expected to produce a considerable number of false positives, but relatively few false negatives, compared with the interview format. Furthermore, the rates of misidentification are likely to vary depending on the base rates of the disorders in the population in which it is employed (WHO, 1995). The IPDE-SQ was used in this study to assess the construct validity of the PDQ-4+ through inter-test agreement.

### 2.3.2 Adult Attachment Styles

Adult attachment style was assessed using the Experiences in Close Relationships Inventory (ECRI: Brennan et al, 1998: appendix nine), a self report questionnaire. The construct validity of the ECRI was assessed through inter-test agreement with the Relationship Questionnaire (RQ: Bartholomew & Horowitz, 1991: appendix ten), a self-report questionnaire. Furthermore the ECRI and the RQ were adapted to be completed the participant's named nurse.

#### *2.3.2.1 Experiences in Close Relationships Inventory*

The ECRI is a new measure of adult attachment style, which has been developed through factor analysis of other self-report measures of adult attachment style. This measure was developed to bring together current self-report measures of adult romantic attachment style and to develop a more valid and detailed measure than the two main measures currently used (Romantic Attachment Questionnaire: Hazan & Shaver, 1987; Relationship Questionnaire: Bartholomew & Horowitz, 1991).

The ECRI is a 36-item questionnaire, which assesses attachment anxiety and attachment avoidance in close relationships, across 18 items each. Each item is scored on a seven point likert rating scale, ranging from 1 = strongly disagree, to 7 = strongly agree. Several items are reversed scored. Mean scores for each dimension were used to calculate which of the four attachment categories, secure, preoccupied, dismissing and fearful (Bartholomew, 1990), the participant fitted. The ERCI was chosen as it provides both dimensional scores across the two attachment dimensions and the overall attachment category. As highlighted in the introduction, this is currently the most conceptually valid method of investigating this

conceptualisation of adult attachments (Bartholomew & Shaver, 1998; Fraley & Waller, 1998). The major limitation of the ECRI, is that it relies on self-report, therefore potentially providing a measure of perceived attachment style, which may or may not be accurate, depending on the degree of self-awareness of the client. However, the ECRI is an improvement on previous self-report measures, as it focuses on specific behaviours and does not require an interpretation of these behaviours to fit a specific attachment style. Overall, narrative methods of assessing adult attachment style, such as the Adult Attachment Interview, may prove to be a more valid method of assessment, however, due to resource constraints it was not possible to use this method in the present study.

The ECRI has been shown to have good construct validity, in particular the two attachment dimensions have been consistently found to underlie previous adult attachment styles and to account for the majority of the variance within and between adult attachment styles.

However, there is little information on the reliability of this measure. Brennan et al (1998) reported good inter-test agreement with the RQ in a student sample. There have been no other published studies to date on its reliability with other populations.

The reliability and validity of the ECRI with this client group was established using two methods. Firstly, construct validity of the ECRI was assessed through inter-test agreement with the Relationship Questionnaire. Secondly, the inter-rater reliability of the attachment style was assessed by having the participant's named nurses complete the ECRI, based on their knowledge of the participant and their own experience of getting to know the participant.

#### *2.3.2.2 The Relationship Questionnaire*

The Relationship Questionnaire (Bartholomew & Horowitz, 1991) is a self-report instrument designed to assess adult attachment within Bartholomew's (1990) four-category framework. Participants are asked to rate the extent to which each style describes them on a seven likert-type rating scale and to indicate which style most accurately describes them.

The Relationship Questionnaire has been used in several studies, which have suggested moderate to good reliability and validity (Bartholomew & Horowitz, 1991; Bartholomew & Shaver, 1998; Brennan et al, 1998; Sack et al, 1996; Ward et al, 1996). The RQ was used to assess the reliability and validity of ECRI.

#### *2.3.2.3 Observer Ratings*

As mentioned previously both the ECRI and the Relationship Questionnaire were altered to enable them to be completed by participants' named nurses (appendix eleven and twelve, respectively). The construct validity of the named nurse rating of the participants on the ECRI was assessed by inter-test agreement with RQ. It should be noted that, although the staff were asked to rate the participant's attachment style with respect to general intimate attachments, they may have inadvertently rated the participant according to the specifics of their own relationship with the participant.

### 2.3.3 Current Mental Health Status

In an attempt to control for current mental health functioning, each patient was assessed using the Brief Symptom Inventory (BSI: Derogatis, & Melisarotos, 1982 appendix thirteen). This has been shown to be a reliable and valid measure (Boulet & Boss, 1991) and there are community norms available for the area local to the hospital (Francis, Rajan & Turner, 1990).

### 2.3.4 Childhood Experiences of Parenting

#### *2.3.4.1 Child Maltreatment Schedule (Briere, 1992)*

Childhood experiences of parenting and abuse were assessed using the Child Maltreatment Schedule (Briere, 1992: appendix fourteen), which is a structured interview schedule. The schedule was developed for use as a clinical interview and a research tool. The schedule examines six areas:

- Parental Physical Availability;
- Parental Psychological Availability;
- Parental Disorder;
- Psychological Abuse;
- Physical Abuse
- Sexual Abuse

This schedule was chosen because of the broad range of childhood experiences of care and abuse, which are covered. Although the focus is mainly on experiences of child abuse, it also includes questions on the following areas: separation from parents; other parent figures,

(e.g., foster parents; carer in a residential home); degree to which the person felt loved and cared for by their parents and any other parental figures.

This schedule has good face validity in terms of the range of experiences it covers. As with all retrospective measures, there are problems with the reliability and validity of the recall of long term memories (Brewin, 1988 p.17). Studies have shown that there is better reliability where questions focus on behaviour rather than feelings (Brewin, Andrews & Gotlib, 1993). This schedule generally asks about specific behaviour, indicating good reliability for those areas. However, there are questions about feelings, which are more likely to be affected by recall biases and this limits the interpretation of the results of these questions. No previous studies, to date, were found which reported the reliability of this measure, therefore this must be considered when interpreting the results.

The schedule was minimally adapted for use for this project. The first adaptation involved changing the dividing age between childhood and adolescence from 8 years old to 11 years old, for the section on parental psychological availability, as this is consistent with current thinking. The second adaptation was made to provide an estimation of the extent to which the behaviour of parent figures was consistent, i.e., predictable, as this has been found to be associated with an ambivalent child attachment style, as highlighted in the introduction. This involved adding a likert-type scale to each of the six areas examined within the interview. The likert scale was a five-point scale ranging from: 1 = never knew when the caregiver would or would not do X, to 5 = always knew when the caregiver would and would not do X.

#### *2.3.4.2 Parental Caregiving Questionnaire*

This was assessed using a three-category model of caregiver attachment styles devised by Hazan and Shaver (1987: appendix fifteen). The three categories are secure, avoidant and ambivalent, and are synonymous with the secure, avoidant and resistant infant attachment patterns (Ainsworth et al, 1978). Participants were asked to rate the extent to which each style describes first their mother and then their father on a seven point likert-type rating scale and to indicate which style most accurately describes them.

This measure has good face validity and content validity from child attachment studies (Ainsworth et al, 1978; Cassidy & Berlin, 1994). However it was devised prior to the identification of the disorganised and fearful adult attachment styles. Unfortunately it was beyond the resources of this study to adequately devise a fourth category corresponding to a disorganised and/or fearful caregiver attachment style. This measure has never been formally published and is used in this study with permission from the author. No published research to date was found on the reliability or validity of this measure and this limitation should be taken into account when interpreting the results.

## **2.4 Procedure**

All patients on the Personality Disorder Service were asked to complete the self-report measures and structured interviews described above, as part of the clinical psychology assessment programme. The PDQ-4+ was given out to all patients over a six-month period prior to the remaining data collection. An interview was arranged with each patient on the Personality Disorder Service to discuss this part of the assessment process and further interviews were arranged if they agreed to complete the assessments.

The measures were administered in the following order:

1. Brief Symptom Inventory (Derogatis & Melisarotos, 1982)
2. Child Maltreatment Schedule (Briere, 1992);
3. Parental Caregiving Questionnaire (Hazan & Shaver, 1987);
4. Experiences in Close Relationships Inventory (Brennan et al, 1998);
5. Relationship Questionnaire (Bartholomew & Horowitz, 1991)

The questionnaires were completed in the order presented above to control for possible confounding order effects. They were completed in this order so that the potentially distressing child maltreatment schedule was in the first half of the interview, with possibly less distressing questionnaires following it. Furthermore, it was thought that the patients were more likely to be cued into their childhood having completed the childhood maltreatment schedule and that this would increase the recall of their parent's behaviour towards them. After each patient had completed these questionnaires, they were asked for permission for their named nurse to complete the ECRI and the RQ.

Although it was not possible to conduct a pilot study, it was planned prior to the start of data collection that the process would be reviewed after the first three interviews. Additionally, after each of the first three interviews, the researcher made notes on the process, including any alterations to the process. Procedural changes were minimal and focused on issues such as adapting the scoring system of the child maltreatment schedule.

All the interviews were conducted by the author, to increase the reliability of the data collection. Experimenter effects were considered prior to the data collection. Unfortunately it was not possible to collect all the data prior to scoring all the questionnaires. However all the

attachment measures were scored after the data collection had been completed, so the author remained 'blind' to attachment style. Furthermore, the childhood maltreatment schedule was carefully conducted, so that all the questions were asked and extra questions were avoided as much as possible.

As the interview contains potentially sensitive questions, in particular the childhood maltreatment schedule, several precautions were taken. The participants were informed prior to the start of the interview that it contained questions about childhood and abuse, which may be difficult and that they could terminate the interview or take a break at anytime. They were informed that the assessment session would be noted in the multidisciplinary notes, so that the ward staff would be aware that they had participated in a potentially distressing session and that this would be discussed with staff at the time. This is consistent with the procedure for psychology sessions within the setting that the interviews were conducted.

## **2.5 Data Analysis**

The data collected in this study were ordinal and not normally distributed, therefore non-parametric statistics were used. Where the analysis investigates associations between variables, Spearman's Rank correlation test was used. Where agreement on categories is assessed, Chi-square Likelihood Ratios was used, as this is less affected by small sample size than Pearson's chi-square (Howell, 1992, p.144). Where comparisons between groups are made, Kruskal Wallis non-parametric analysis of variance and Mann Whitney U non-parametric test were used. A significance level of  $p \leq 0.05$  was taken throughout the analysis. Furthermore, as directional hypotheses were investigated, significance testing was one-tailed, with the exception of hypothesis two b, which does not predict a direction, therefore significance testing was two-tailed.

Multiple correlations were conducted, however, a Bonferroni correction to guard against type one errors was not used, as there was already a low likelihood of type one errors due to the small sample size and the limited power of non-parametric analysis (Howell, 1992, p.141).

Multiple regression analysis was used in the additional analyses to investigate the extent to which childhood and attachment variables are predictive of the severity of PD and the extent to which childhood variables are predictive of the attachment dimensions. A stepwise procedure ( $p \leq 0.05$  for the variables to be entered and  $p \geq 0.10$  to be removed) was used as it assesses whether each variable is contributing something new to the prediction compared to those variables entered before and after each variable and this has been argued to be the most appropriate method (Howell, 1992, p.516).

### 3 Results

Preliminary analysis including the reliability of the adult attachment style and PD measures, and potential co-varying variables will first be reported, followed by the data analysis for each hypothesis.

#### 3.1 Preliminary Analysis

The adult attachment dimension scores were not significantly correlated with age (anxiety:  $r = -0.017, p = 0.930$ ; avoidance:  $r = 0.013, p = 0.945$ ), age at which participant left education (anxiety:  $r = -0.092, p = 0.635$ ; avoidance:  $r = -0.019, p = 0.923$ ), length of time at the hospital (anxiety:  $r = 0.296, p = 0.113$ ; avoidance:  $r = -0.054, p = 0.778$ ), or ward (anxiety:  $F = 0.415, df = 2, 27, p = 0.664$ ; avoidance:  $F = 0.733, df = 2, 27, p = 0.490$ ). However non-parametric one-way analysis of variance showed that participant's scores on the avoidance attachment dimension did significantly differ according to relationship history ( $\chi^2 = 8.610, p = 0.014$ ). Further analysis found that those participants who were single reported significantly higher scores on the avoidance attachment dimension ( $u = 9.000, p = 0.006$ ), than participant who reported with stable relationships or marriage.

### 3.1.1 Validity and Reliability

#### 3.1.1.1 Attachment Measure

The construct validity of the Experience in Close Relationships Inventory (ECRI: Brennan et al, 1998) completed by the participants was assessed through inter-test agreement with the Relationship Questionnaire (RQ: Bartholomew & Horowitz, 1991) and the reliability was assessed through inter-rater agreement with named nurse's scores on the ECRI.

Table 3.1.1.1a shows the cross-tabulation of participant-rated attachment style categories assessed by the ECRI and the RQ. A likelihood ratio chi-square analysis of the two assessment measures found a significant level of association between the distributions of scores on the same measure ( $\chi^2 = 18.703$ ,  $df = 9$ ,  $p = 0.028$ ). Overall there was a 60 percent agreement between the two measures as to whether participants were classified as having a secure or an insecure attachment style. None of the participants were classified as secure on both measures. Of those participants classified as insecure on the ECRI (76.7%), the RQ classified 21.7 percent as secure. The RQ classified 83.3 percent of participants as insecure, of which 28 percent were classified as secure on the ECRI. A likelihood ratio chi-square analysis showed a non-significant level of agreement between the two measures on whether the participant had a secure or an insecure attachment style ( $\chi^2 = 2.949$ ,  $df = 1$ ,  $p = 0.086$ ).

Table 3.1.1.1a: Inter-Test Agreement Between the Participant-Rated ECRI and RQ

Relationship Questionnaire	Experiences In Close Relationships Inventory				Row total
	Secure	Preoccupied	Dismissing	Fearful	
Secure	0	2	1	2	5 (16.65%)
Preoccupied	0	4	0	1	5 (16.65%)
Dismissing	4	1	1	0	6 (20%)
Fearful	3	3	1	7	14 (46.7%)
Column total:	7 (23.3%)	10 (33.35%)	3 (10%)	10 (33.35%)	30 (100%)

The construct validity of the staff-rated ECRI classification of participant's attachment style was assessed through inter-test agreement with staff-ratings on the RQ. Table 3.1.1.1b shows the cross-tabulation of attachment style categories. A likelihood ratio chi-square analysis found that the agreement between the two measures was non significant ( $\chi^2 = 15.183$ ,  $df = 9$ ,  $p = 0.086$ ). There was a 90 per cent agreement on the security of participant's attachment style. However this agreement was not found to be statistically significant ( $\chi^2 = 0.140$ ,  $df = 1$ ,  $p = 0.708$ ). None of the participants were rated as secure by staff on both measures.

Table 3.1.1.1b: Agreement Between Staff Ratings of Participant's Attachment Style on the ECRI and the RQ.

Relationship Questionnaire	Experiences In Close Relationships Inventory				Row total
	Secure	Preoccupied	Dismissing	Fearful	
Secure	0	1	0	1	2 (6.7%)
Preoccupied	0	3	0	6	9 (30.0%)
Dismissing	1	0	3	3	7 (23.3%)
Fearful	0	1	1	10	12 (40.0%)
Column total:	1 (3.3%)	5 (16.7%)	4 (13.3%)	21 (70.0%)	30 (100%)

#### *Staff and Participant Rated Attachment Styles*

The participant-rated adult attachment scores were compared with the staff-rated adult attachment scores on both the ECRI and the RQ. There was no significant agreement between the participant-rated and staff-rated adult attachment styles on either measure (ECRI:  $k = 0.131$ ,  $p = 0.167$ ; RQ:  $k = 0.055$ ,  $p = 0.609$ ). There was no significant agreement between participants and staff on the secure-insecure classification on either measure (ECRI:  $k = -0.064$ ,  $p = 0.566$ ; RQ:  $k = 0.211$ ,  $p = 0.190$ ), indicating poor reliability. However, on the ECRI, the participant-rated and staff-rated attachment dimensions were significantly correlated (anxiety:  $r = 0.450$ ,  $p = 0.014$ ; avoidance:  $r = 0.405$ ,  $p = 0.029$ ).

Overall, the analysis found limited reliability for the participant-rated attachment categories. The reliability of staff-rated attachment categories was not significant, although there was a very high percentage agreement on the security of the attachment style. The inter-rater reliability between participant-rated and staff-rated attachment categories on the ECRI was poor. However there was significant reliability between participant and staff on the attachment dimensions. The participant's scores on the ECRI attachment dimensions and the subsequent attachment categories will be used in the analysis of each relevant hypothesis, with the exception of hypothesis one, where both the participant-rated and staff-rated ECRI scores will be used.

#### *3.1.1.2 Personality Disorder Measure*

The construct validity of the Personality Disorder Questionnaire – 4+ (PDQ-4+: Hyler, 1994) was assessed using inter-test agreement with the International Personality Disorder Examination –Screening Questionnaire (IPDE-SQ: WHO, 1995). As the PDQ-4+ includes two PDs, which are not included in the IPDE-SQ, total scores for both measures were converted to percentages. Highly significant correlations were found between the percentage totals ( $r = 0.815$ ,  $p = 0.000$ ) and the total number of PDs ( $r = 0.770$ ,  $p \leq 0.0005$ ) of each measure.

The agreement between the two measures on the presence of each PD was assessed (i.e., categorical agreement). Furthermore, the agreement between the two measures on the number of criteria met for each PD was assessed (i.e., the extent of dimensional agreement). Table 3.1.1.2a, column one, shows that there was significant agreement on the presence of: schizotypal ( $\chi^2 = 8.488$ ,  $p = 0.004$ ); anti-social ( $\chi^2 = 5.922$ ,  $p = 0.015$ ); borderline ( $\chi^2 = 7.991$ ,

$p = 0.005$ ); obsessive-compulsive ( $\chi^2 = 6.946, p = 0.008$ ); dependent ( $\chi^2 = 4.84, p = 0.028$ ); and avoidant ( $\chi^2 = 8.382, p = 0.004$ ) PDs. Table 3.1.1.2a column two shows that the dimensional scores of all the PDs were significantly correlated across the two measures.

**Table 3.1.1.2a: Category and Dimensional Agreement Between the PDQ-4+ and IPDE-SQ**

Personality Disorder	Category Agreement (Likelihood Ratios)	Dimensional Agreement (Correlation)
Paranoid	$\chi^2 = 3.220, p = 0.073$	$r = 0.706, p = 0.000$
Schizoid	$\chi^2 = 0.026, p = 0.871$	$r = 0.365, p = 0.043$
Schizotypal	$\chi^2 = 8.488, p = 0.004$	$r = 0.617, p = 0.000$
Anti-social	$\chi^2 = 5.922, p = 0.015$	$r = 0.646, p = 0.000$
Borderline	$\chi^2 = 7.991, p = 0.005$	$r = 0.698, p = 0.000$
Histrionic	$\chi^2 = 0.698, p = 0.403$	$r = 0.551, p = 0.001$
Narcissistic	$\chi^2 = 1.149, p = 0.284$	$r = 0.462, p = 0.009$
Obsessive-compulsive	$\chi^2 = 6.946, p = 0.008$	$r = 0.555, p = 0.001$
Dependent	$\chi^2 = 4.840, p = 0.028$	$r = 0.686, p = 0.000$
Avoidant	$\chi^2 = 8.382, p = 0.004$	$r = 0.750, p = 0.000$

The total score on the PDQ-4+ will be used as the measure of severity of PD. This method has been chosen, because it showed greater validity with the IPDE-SQ than the total number of PDs and because the PDQ-4+ total was highly significantly correlated with the total number of PDs ( $r = 0.970, p = 0.000$ ). Furthermore, this method was chosen because of the relatively poor validity and reliability of specific PDs and because the PDQ-4+ total has been shown to be a valid measure of overall personality disturbance (Hyler et al, 1988).

These results indicate mixed validity for the measurement of the presence of the ten specific PDs and good validity for the measurement of the extent to which participants display the specific PDs. Further analysis involving specific PDs will use the dimensional scores, rather than categories, due to the greater degree of validity found here and highlighted in the literature (O'Conner & Dyce, 1998).

### 3.1.2 Co-Variation of Mental Health

The Brief Symptom Inventory (BSI; Derogatis & Melisarotos, 1982) was used to investigate concurrent mental health as a potential confounding variable of participant-rated ECRI adult attachment style. The results found a mean total score of 42.03, with a standard deviation of 28.04 and a range of 0-116. Overall, there was a wide spread of scores. The data analysis investigated whether there was any difference in the degree of reported mental health symptoms according to attachment style. Table 3.1.2a shows the descriptive statistics for the BSI total scores across the four adult attachment styles.

Table 3.1.2a: Descriptive Statistics For the BSI Total Scores Across Attachment Styles

	Number of Participants	Mean BSI Total	Standard Deviation	Range of BSI Totals
Secure	7	24.14	21.30	1 – 58
Preoccupied	10	56.30	33.59	0 – 116
Dismissing	3	50.33	4.16	47 – 55
Fearful	10	37.00	25.54	3 - 68

Non-parametric analysis of variance found that participant's total scores on the BSI did not differ according to attachment style. However, significant differences between attachment styles were found for the interpersonal sensitivity ( $\chi^2 = 9.088$ ,  $df = 3$ ,  $p = 0.028$ ) and the somatisation ( $\chi^2 = 9.644$ ,  $df = 3$ ,  $p = 0.022$ ) subscales of the BSI. Further analysis found that the participants rated as secure reported significantly lower rates of interpersonal sensitivity ( $u = 10.5$ ,  $p = 0.016$ ), and somatisation ( $u = 12.0$ ,  $p = 0.021$ ) than those participants classified as preoccupied. The participants classified as secure also reported significantly lower rates of interpersonal sensitivity ( $u = 0.00$ ,  $p = 0.017$ ) and somatisation ( $u = 0.50$ ,  $p = 0.017$ ), than the dismissing group. The remaining eight subscales of the BSI did not significantly differ according to attachment style.

As the total reported mental health symptoms and eight of the ten subtypes were not related to attachment styles, overall concurrent mental health symptomology is not considered to be a confounding variable and therefore will not be included in the subsequent analysis.

### **3.2 Hypothesis One**

The first hypothesis stated that predominantly insecure attachments would be found within this group of participants, compared to the distribution across attachment styles found in general populations. Seventy-seven percent of the participant's scores and 96.6 percent of the staff's scores indicated an insecure adult attachment style, which is considerably higher than the 30 - 69.6 percent found in general populations (Klohn & Bera, 1998; Brennan et al, 1998).

Table 3.2a shows the distribution of participants across the four adult attachment styles as measured by the ECRI and the distribution found across a general population, a clinical population and a PD offender population. In this sample, there were more preoccupied and fearful insecure adult attachment styles and fewer dismissing adult attachment styles, as rated by participants, than found in the general population samples. The staff-rated attachment styles showed a far higher proportion of fearful attachment styles. Table 3.2a shows that the participant-rated distribution is different to that found in both the clinical self-rated sample and the PD offender sample. However the staff-rated distribution is similar to that found in the PD offender sample, which used the AAI to assess attachment style.

Table 3.2a: The Distribution of Adult Attachment Styles Across Participants and General Populations.

	Secure %	Insecure		
		Preoccupied %	Dismissing %	Fearful %
Participants ECRI	23.3	33.35	10.00	33.35
Staff-rated ECRI	3.3	16.7	13.3	66.7
General population norms RQ (a)	49	12	21	18
Clinical PD population RAQ (b)	9	23	68 (avoidant)	
PD offender populations AAI (c)	5	20	22	53
(cannot classify)				

(a) Bartholomew & Horowitz (1991); (b) Sack et al (1996); (c) Van IJzendoorn et al (1997).

Table 3.2b shows the mean scores for the participant's and the staff's ratings on the avoidance and anxiety attachment dimensions, across the adult attachment styles and those found by Brennan et al (1998) in a US student population using the ECRI.

**Table 3.2b: Descriptive Statistics of the Participant-Rated and Staff-Rated Attachment Dimensions**

	Secure		Preoccupied		Dismissing		Fearful	
	Anxiety	Avoid- ance	Anxiety	Avoid- ance	Anxiety	Avoid- ance	Anxiety	Avoid- ance
Participants Means (S.D.)	2.14 (0.69)	1.87 (0.66)	4.76 (0.83)	2.65 (0.65)	2.87 (0.23)	3.95 (0.67)	4.70 (0.78)	4.52 (0.85)
Staff-rated Means (S.D.)	3.22	3.33	5.04 (0.80)	3.04 (0.64)	3.16 (0.21)	5.15 (1.37)	4.75 (0.66)	4.43 (0.81)
US Student Means*	2.64	1.88	4.60	2.40	2.60	3.87	4.06	3.96

(\* Brennan et al, 1998)

The results support the hypothesis that predominantly insecure adult attachment styles would be found in this sample of men diagnosed with PD and detained for serious offences.

### 3.3 Hypothesis Two

The second hypothesis consisted of two parts. First, that more severe PD would be associated with higher scores on one or both of the attachment dimensions of the ECRI. Second, that there would links between specific PDs and adult attachment styles.

### 3.3.1 Hypothesis Two (a)

The mean number of PDs per participant was 4.7 (S.D. = 3.64; range = 0 - 12). Previous studies have found a mean number of PDs per person of between 2.8 and 4.6 (Widiger, Frances, Warner & Bluhm, 1986; Skodol, Rosnick, Kellman, Oldham & Hyler, 1991) using structured interview and self-report methods. The mean PDQ-4+ total was 40.3 out of a possible total score of 99 (S.D. = 21.67; range = 3 - 72). Kolmogorov-Smirnov test indicated that the PDQ-4+ totals were not normal distributed and therefore, as stated in the data analysis section (p. 66), non-parametric correlation was used to examine the hypotheses.

Table 3.3.1a shows that the PDQ-4+ total was significantly correlated with anxiety attachment dimension ( $r = 0.484$ ,  $p = 0.003$ ). No significant association was found between the PDQ-4+ total and the avoidance attachment dimension.

**Table 3.3.1a: Associations Between the PDQ-4+ Total and the Attachment Dimensions**

	Anxiety	Avoidance
Participants Ratings	$r = 0.484$ , $p = 0.003$	$r = 0.246$ , $p = 0.095$

Table 3.3.1b shows the mean PDQ-4+ totals for each attachment style. Non parametric analysis of variance found no significant difference in PDQ-4+ totals by attachment styles ( $\chi^2 = 2.177$ ,  $df = 3$ ,  $p = 0.536$ ).

**Table 3.3.1b: Mean PDQ-4+ Totals Across Attachment Styles**

Participants	Secure	Preoccupied	Dismissing	Fearful
Mean PDQ-4+ Total	29.3	44.2	42.3	43.8
(S.D.)	(24.6)	(18.5)	(6.8)	(24.6)

Overall, these results show partial support for hypothesis two (a), indicating that attachment anxiety within close relationships is associated with severity of PD within this population.

### 3.3.2 Hypothesis Two (b)

The links between specific PDs and attachment dimensions were first examined by investigating the associations between the total scores for each PD cluster and the attachment dimensions, followed by analysis of the associations between specific PDs and the attachment dimensions.

The results found that the scores on the anxiety attachment dimension were significantly correlated with cluster B scores ( $r = 0.435, p = 0.008$ ) and cluster C scores ( $r = 0.540, p = 0.001$ ). The scores on the avoidance attachment dimension was not significantly correlated with any of the PD cluster scores. Table 3.3.2a column one, shows that scores on the anxiety attachment dimension were significantly correlated with scores on all of the PDs, except schizoid ( $r = 0.118, p = 0.267$ ) and schizotypal ( $r = 0.178, p = 0.173$ ) PDs. Scores on the avoidance attachment dimension were only significantly correlated with scores for schizoid ( $r = 0.319, p = 0.043$ ) and avoidant ( $r = 0.365, p = 0.024$ ) PDs, as can be seen in the second column of table 3.3.2a.

**Table 3.3.2a: Associations Between Personality Disorders and the Attachment Dimensions**

Personality Disorder	Anxiety	Avoidance
Paranoid vs. No Paranoid	$r = 0.308, p = 0.049$	$r = 0.229, p = 0.112$
Schizoid vs. No Schizoid	$r = 0.118, p = 0.267$	$r = 0.319, p = 0.043$
Schizotypal vs. No Schizotypal	$r = 0.178, p = 0.173$	$r = 0.066, p = 0.365$
Antisocial vs. No Antisocial	$r = 0.336, p = 0.035$	$r = 0.142, p = 0.227$
Histrionic vs. No Histrionic	$r = 0.380, p = 0.019$	$r = 0.285, p = 0.064$
Narcissistic vs. No Narcissistic	$r = 0.398, p = 0.015$	$r = 0.189, p = 0.158$
Borderline vs. No Borderline	$r = 0.420, p = 0.010$	$r = 0.290, p = 0.060$
Obsessive-Compulsive vs. No Obsessive-compulsive	$r = 0.343, p = 0.032$	$r = 0.107, p = 0.287$
Dependent vs. No Dependent	$r = 0.510, p = 0.002$	$r = 0.217, p = 0.124$
Avoidant vs. No Avoidant	$r = 0.555, p = 0.001$	$r = 0.365, p = 0.024$
Passive-aggressive vs. No Passive-aggressive	$r = 0.491, p = 0.003$	$r = 0.253, p = 0.089$
Depressive vs. No Depressive	$r = 0.444, p = 0.007$	$r = 0.233, p = 0.108$

Overall, the results found that the extent to which participants displayed PDs was related to the degree of attachment anxiety. In particular, clusters B and C were significantly correlated with the anxiety attachment dimension. This is consistent with the hypothesis that cluster B would only be significantly associated with the anxiety attachment dimensions. However, cluster C was not significantly correlated with the avoidance attachment dimension, which does not support the hypothesis that cluster C would be significantly associated with both the anxiety and avoidance attachment dimensions. Furthermore, cluster A was not significantly associated with either of the attachment dimensions, therefore not supporting the hypothesis.

When the relationship between specific PDs and the attachment dimensions were examined, the expected patterns were not found. The majority of specific PDs were significantly associated with the anxiety attachment dimension, whereas only two specific PDs were significantly associated with the avoidance attachment dimension. These results only partially support the hypothesis of specific links between PDs and adult attachment dimensions.

### 3.4 Hypothesis Three

The third hypothesis stated that there would be higher rates of childhood abuse than those reported in the literature and that more negative childhood experiences would be associated with more severe PD.

The rates of reported child abuse were higher than those reported by community samples of men and women and were higher than those reported by an inpatient PD sample (Zanarini et al, 1997) and prison samples (Fondacaro, Holt & Powell, 1999; McClellan, Farabee & Crouch, 1997). Table 3.4a shows the reported rates of child abuse found in this sample and norms from the recent literature.

**Table 3.4a: Reported Rates of Child Abuse and Population Prevalence Rates**

	Emotional Abuse by caregiver %	Physical Abuse by caregiver %	Any sexual abuse %
Participants	93.5	83.9	64.5
Norms	24-40	5.3	4-25
	clinical child samples (a)	male community sample (d)	male community sample (d)
	68	53	55
	inpatient PD sample (b)	inpatient PD sample (b)	inpatient PD sample (b)
		31 - 80	4.5-40
		male offenders (e)	male prison sample (c)

(a) Glaser & Prior, (1997) – Thompson & Kaplan (1999); (b) Zanarini et al (1997); (c) McClellan, Farabee & Crouch (1997) – Fondacaro, Holt & Powell (1999); (d) Silverman, Reinherz & Giaconia (1996); (e) Dutton & Hart, (1994) - Stein & Lewis (1992).

Overall the majority of participant's experienced multiple forms of abuse: 2 participants (6.5 %) reported no abuse; 1 participant (3.2 %) reported only emotional abuse; 8 participants (25.8 %) reported emotional and physical abuse; 2 participants (6.5 %) reported emotional abuse and child sexual abuse; and 18 participants (58.1 %) reported emotional, physical and sexual abuse. Table 3.4b shows the means for the characteristics of each type of abuse.

**Table 3.4b: Reported Rates of Specific Characteristics of Child Abuse**

	Participants %	Mean Number of Types	Mean Age at Start	Mean Duration (Months)	Mean Frequency	Mean Predictability
Emotional Abuse by caregiver	93.5	6.86	3.66	134	3.73	3.88
Physical Abuse by Caregiver	83.9	3.04	4.50	101	3.12	3.65
Threats by caregiver	83.9	3.32	4.68	91	3.04	3.26
Restraint by caregiver	80.6	2.64	4.76	100	3.32	3.24
Sexual abuse by caregiver	19.4	9.00	7.00	56	3.17	3.33
Sexual abuse by non caregiver	61.3	7.58	9.37	28	2.32	2.21
Any sexual abuse	64.5	9.4	9.00	36	2.33	2.25

A cumulative score of abuse experiences was calculated by summing the total number of types of emotional abuse, threats, restraint, physical abuse, and child sexual abuse for each participant (mean = 19.5, S.D. = 13.4, range = 0 - 56). There was no significant correlation between the cumulative abuse score and severity of PD ( $r = 0.052$ ,  $p = 0.392$ ).

### 3.4.1 Parental Physical Availability

The results found that: 74 percent of participants had been separated from one or both natural parents; 68 percent of the participants had been separated from their natural mother; 74 percent had been separated from their natural father; and 64 percent had been separated from both parents. The mean age of separation was 6.4 years (S.D. = 5.46; median = 5;

range = 0 - 15). Of those participants whose primary carers were not their natural parents, 70 percent reported separations from their primary female carer and 95.6 percent reported separations from their primary male carer. Reasons for separation included: adoption or long term fostering within two years after birth; divorce or separation; removal by social services for child abuse; parents having the child removed; repeated hospitalisation for physical health problems during first four years.

Forty five percent of participants lived in one or more children's home or approved school or juvenile detention centre, during some part of their childhood. Approximately half of those participants lived in two or more residential facilities, usually a combination of children's homes and secure facilities for children. Twenty percent of participants reported living in one or two foster homes. The mean number of attachment figures was 2.6 (S.D. = 0.95; range = 2 - 5).

Parental physical availability was measured in three ways. The first measure was the total number of separations from caregivers. The second measure consisted of asking participants to rate how predictable their caregivers physical presence in the home was during their childhood. The third measure was a cumulative score of separations, number of children's homes etc, number of foster homes and predictability. Table 3.4.1a shows the descriptive statistics for the three measures.

Table 3.4.1a: Descriptive Statistics for Parental Physical Availability Measures.

	Separations from Primary Caregivers	Cumulative Availability Score	Predictability of Physical Availability (0-5)*		
			Female	Male	Both
Mean	1.55	6.94	2.16	2.19	4.35
(S.D.)	(1.09)	(3.79)	(1.34)	(1.45)	(2.47)
Range	0 - 4	2 - 16	1 - 5	1 - 5	2 - 10

\* 1 = always predictable, to 5 = not at all predictable.

The PDQ-4+ total was found to be significantly correlated with the total number of separations ( $r = 0.346, p = 0.028$ ). The PDQ-4+ total was not correlated with either the cumulative parental physical availability score or the predictability of caregiver physical availability.

### 3.4.2 Parental Psychiatric Difficulties

Parental psychiatric difficulties refers to caregivers having received psychiatric services, having drug or alcohol problems, or domestic violence. The total number of psychiatric difficulties for each caregiver and a combined total for caregivers were calculated. Domestic violence was scored as a psychiatric difficulty for the violent caregiver.

The results showed that 30 percent of the participants reported that their female caregiver had one or more psychiatric difficulties and 52 percent reported that their male caregiver had one or more psychiatric difficulties, the majority being domestic violence and alcohol abuse.

When domestic violence was examined separately, it was found that 41.9 percent of participants recalled domestic violence between their caregivers.

The PDQ-4+ total was found to be significantly higher for those participants who reported female caregiver psychiatric difficulties compared with those who reported none ( $u = 51.5, p = 0.019$ ). The PDQ-4+ total did not differ according the reported presence or absence of male caregiver psychiatric difficulties ( $u = 114.0, p = 0.430$ ) or combined caregiver psychiatric difficulties ( $u = 95.5, p = 0.229$ ). The PDQ-4+ total did not differ according to the presence or absence of domestic violence ( $u = 109.5, p = 0.384$ ).

### 3.4.3 Parental Psychological Availability

#### 3.4.3.1 *Parental Love and Care*

Participants rated the extent to which they felt loved and cared for by each caregiver, during their childhood (0 - 11 years old) and their adolescence (12 - 16 years old) and the extent to which this was predictable. Table 3.4.3.1a shows that the mean rating for the female caregiver was between not loving and caring and loving and caring, and that this decreased slightly at adolescence. The mean rating for the male caregiver was in the loving and caring section of the scale and there was a slight decrease at adolescence. The mean ratings of predictability love and care by the caregivers indicated some consistency.

Table 3.4.3.1a: Descriptive Statistics for Parental Psychological Availability

	Mean	Standard Deviation	Range
Female Caregiver 0 - 11 (a)	3	1.60	1 - 5
Female Caregiver 12 - 16 (a)	2.72	1.58	1 - 5
Female Caregiver Predictability (b)	3.63	1.43	3 - 5
Male Caregiver 0 - 11 (a)	3.97	1.33	1 - 5
Male Caregiver 12 - 16 (a)	3.7	1.47	1 - 5
Male Caregiver Predictability (b)	3.93	1.28	1 - 5

(a) Parental love and care was rated on a 1 - 5 likert-scale, where 1 = not at all, to 5 = very much.

(b) Predictability of parental love and care was rated on a 1 - 5 likert-scale, where 1 = not at all predictable, to 5 = always predictable.

None of the measures of parental love and care, or its predictability, were significantly correlated with the total PDQ-4+ score.

### 3.4.3.2 *Parental Attachment Behaviour*

Parental attachment behaviour was measured using the Parental Caregiving Questionnaire (Hazen & Shaver, 1987). The participant's mean ratings of each caregiver on the extent to which they displayed secure, avoidant, and ambivalent attachment styles are shown in table 3.4.3.2a.

Table 3.4.3.2a: Descriptive Statistics for Parental Attachment Behaviour

	Secure	Avoidant	Ambivalent
Female caregiver mean ratings (S.D.)*	6.32, (2.93)	3.55 (3.30)	4.55 (2.93)
Male caregiver mean Ratings (S.D.)*	4.19 (3.18)	4.19, (3.30)	4.03 (3.10)

\* 1 = not at all characteristic, to 7 = very characteristic.

The PDQ-4+ total was not significantly correlated with any of the participant's rating of caregiver attachment behaviour.

### 3.4.4 Emotional Abuse

Ninety-three percent of participants reported at least one form of emotional abuse by their female caregiver. Ninety-three percent reported at least one form of emotional abuse by their male caregiver. Table 3.4b (p. 81) shows the means for the characteristics of emotional abuse. The results found that none of the measures of emotional abuse were significantly correlated with the PDQ-4+ total, as can be seen in table 3.4.4a.

**Table 3.4.4a: Associations Between Severity of Personality Disorder and Emotional Abuse**

	Female Caregiver	Male Caregiver	Combined Caregiver	
Number of Types n = 31	r = -0.123, p = 0.254	r = 0.002, p = 0.496	r = -0.065, p = 0.365	
	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 29	r = 0.098, p = 0.306	r = -0.160, p = 0.204	r = 0.149, p = 0.219	r = 0.020, p = 0.459
Female Caregiver n = 29	r = 0.231, p = 0.114	r = -0.240, p = 0.105	r = 0.034, p = 0.430	r = -0.117, p = 0.276
Male Caregiver n = 29	r = 0.105, p = 0.293	r = -0.036, p = 0.427	r = 0.248, p = 0.097	r = 0.145, p = 0.277

Threats by a caregiver as a form of emotional abuse, was considered separately, and included threats to abandon, hurt or kill the child. The results found that 67.7 percent of participants recalled receiving one or more types of threats from their female caregiver and 77.4 percent recalled receiving one or more types of threats from their male caregiver. Overall 83.9 percent of participants reported receiving threats from any caregiver. Table 3.4.4b shows a significant negative correlation between the PDQ-4+ total and the age of the participant when threats by the female caregiver began ( $r = -0.499, p = 0.041$ ). This indicates that the younger the participant was when threats by a caregiver started is associated with more severe PD in adulthood.

**Table 3.4.4b: Associations Between Severity of Personality Disorder and Threats**

	Female Caregiver	Male Caregiver	Combined Caregiver
Number of Types n = 31	$r = 0.005, p = 0.490$	$r = 0.088, p = 0.318$	$r = 0.073, p = 0.349$
	Age at Start	Duration (Months)	Frequency
Combined Caregivers n = 26	$r = -0.339, p = 0.078$	$r = 0.170, p = 0.244$	$r = -0.247, p = 0.162$
Female Caregiver n = 21	$r = -0.499, p = 0.041$	$r = 0.132, p = 0.333$	$r = -0.145, p = 0.318$
Male Caregiver n = 24	$r = -0.251, p = 0.158$	$r = 0.332, p = 0.089$	$r = -0.331, p = 0.090$
			Predictability
			$r = -0.068, p = 0.391$
			$r = -0.077, p = 0.406$
			$r = -0.012, p = 0.481$

### 3.4.5 Restraint

Forty eight percent of participants reported restraint by their female caregiver and 71 percent reported restraint by their male caregiver. Table 3.4b (p. 81) shows the descriptive statistics for the characteristics of restraint. None of the measures of restraint were found to be correlated with the PDQ-4+ total, as can be seen in table 3.4.5a.

**Table 3.4.5a: Associations Between Severity of Personality Disorder and Restraint**

	Female Caregiver	Male Caregiver	Combined Caregiver
Number of Types n = 31	$r = -0.019, p = 0.459$	$r = 0.079, p = 0.336$	$r = 0.069, p = 0.357$
	Age at Start	Duration (Months)	Frequency
Combined Caregivers n = 25	$r = -0.212, p = 0.155$	$r = 0.120, p = 0.284$	$r = 0.019, p = 0.463$
Female Caregiver n = 18	$r = -0.186, p = 0.230$	$r = 0.016, p = 0.262$	$r = -0.042, p = 0.434$
Male Caregiver n = 22	$r = -0.066, p = 0.386$	$r = 0.013, p = 0.478$	$r = 0.174, p = 0.219$
			Predictability
			$r = 0.029, p = 0.446$
			$r = -0.164, p = 0.258$
			$r = 0.072, p = 0.375$

### 3.4.6 Physical Abuse

Sixty-eight percent of participants reported childhood physical abuse by the female caregiver. This ranged from being ‘lightly tapped/hit’ for being naughty, to being hit with the buckle end of a belt. Seventy-seven percent of participants reported childhood physical abuse by their male caregiver, with a similar range of types of abuse, although it tended to be more severe. Overall 83.9 percent of participants reported childhood physical abuse. Table 3.4b (p. 81) shows the means for the characteristics of physical abuse.

Table 3.4.6a shows that none of the measures of physical abuse were significantly correlated with PDQ-4+ total.

**Table 3.4.6a: Associations Between Severity of Personality Disorder and Physical Abuse**

	Female Caregiver	Male Caregiver	Combined Caregiver	
Number of Types n = 31	r = -0.298, p = 0.052	r = 0.089, p = 0.317	r = -0.203, p = 0.137	
	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 26	r = 0.042, p = 0.419	r = -0.035, p = 0.433	r = 0.185, p = 0.182	r = -0.141, p = 0.246
Female Caregiver n = 21	r = -0.096, p = 0.339	r = 0.149, p = 0.260	r = 0.341, p = 0.065	r = -0.347, p = 0.062
Male Caregiver n = 24	r = 0.188, p = 0.189	r = -0.188, p = 0.190	r = 0.029, p = 0.446	r = -0.000, p = 0.500

### 3.4.7 Childhood Sexual Abuse

One participant reported childhood sexual abuse (CSA) by their primary female caregiver, 19.4 percent reported CSA by their primary male carer, 41.9 percent reported CSA by a male adult and 25.8 percent reported CSA by a female adult. Forty-five percent of participants reported CSA by two or more perpetrators (mean = 3, range = 2 – 5). Of those who reported CSA, 25 percent reported CSA by a caregiver and by an adult non-caregiver. Table 3.4b (p.81) shows the means for the characteristics of CSA. Overall 64.5 percent of participants reported CSA. As only one participant reported sexual abuse by a female caregiver, the relationship of sexual abuse by a female caregiver to severity of PD can not be examined. Table 3.4.7a shows that none of the measures of CSA were correlated with the PDQ-4+ totals.

**Table 3.4.7a : Associations Between Severity of Personality Disorder and Sexual Abuse**

	Any	Male Caregiver	Male Non-Caregiver	Female Non-Caregiver	Non-Caregiver
Number of Types n = 31	$r = 0.119,$ $p = 0.261$	$r = -0.040,$ $p = 0.415$	$r = 0.235,$ $p = 0.102$	$r = -0.062,$ $p = 0.371$	$r = 0.110,$ $p = 0.277$
	Age at Start	Duration (Months)	Frequency	Predictability	
Any n = 20	$r = -0.140,$ $p = 0.278$	$r = -0.038,$ $p = 0.437$	$r = -0.157,$ $p = 0.254$	$r = -0.276,$ $p = 0.120$	
Male Caregiver n = 6	$r = -0.116,$ $p = 0.413$	$r = 0.177,$ $p = 0.369$	$r = -0.093,$ $p = 0.431$	$r = 0.000,$ $p = 0.500$	
Non-Caregiver n = 19	$r = -0.186,$ $p = 0.233$	$r = 0.000,$ $p = 0.499$	$r = -0.114,$ $p = 0.226$	$r = -0.253,$ $p = 0.148$	
Female Non-Caregiver n = 8	$r = -0.133,$ $p = 0.376$	$r = -0.300,$ $p = 0.241$	$r = 0.300,$ $p = 0.235$	$r = -0.544,$ $p = 0.082$	
Male Non-Caregiver n = 14	$r = -0.216,$ $p = 0.229$	$r = 0.238,$ $p = 0.206$	$r = -0.055,$ $p = 0.429$	$r = -0.078,$ $p = 0.400$	

### **3.4.8. Summary**

Overall the results showed limited support for hypothesis three. The results highlighted specific aspects of parenting which were associated with more severe PD, in the expected direction. The total number of separations, female caregiver psychiatric difficulties and the age at which threats by female caregiver began, were all significantly associated with the severity of PD.

## **3.5 Hypothesis Four**

The fourth hypothesis stated that negative childhood experiences would be associated with higher scores on one or both of the attachment dimensions. The cumulative abuse total was not correlated with either of the attachment dimensions.

### **3.5.1 Parental Physical Availability**

No significant correlations were found between either of the attachment dimensions and the three physical availability measures: total number of separations, cumulative caregiver physical availability score and predictability of caregiver physical availability, as can be seen in table

3.5.1a.

Table 3.5.1a: Associations Between Attachment Dimensions and Parental Physical Availability.

	Anxiety		Avoidance	
Total Number of Separations	$r = 0.253,$	$p = 0.088$	$r = 0.200,$	$p = 0.144$
Cumulative Physical Availability	$r = 0.236,$	$p = 0.104$	$r = 0.202,$	$p = 0.142$
Predictability of Female Caregiver	$r = -0.046,$	$p = 0.405$	$r = -0.165,$	$p = 0.192$
Predictability of Male Caregiver	$r = 0.018,$	$p = 0.461$	$r = 0.086,$	$p = 0.325$
Combined Caregiver Availability	$r = -0.019,$	$p = 0.461$	$r = -0.053,$	$p = 0.390$

### 3.5.2 Parental Psychiatric Difficulties

The anxiety attachment dimension score was found to be significantly higher for those participants who recalled no male caregiver psychiatric difficulties compared with those who reported male caregiver psychiatric difficulties ( $u = 70.5, p = 0.043$ ). However this result is in the unexpected direction and is therefore rejected. Furthermore it is not significant at the two-tailed level. The anxiety attachment dimension did not differ according to the presence or absence of female caregiver psychiatric difficulties ( $u = 90.0, p = 0.429$ ) or domestic violence ( $u = 79.5, p = 0.116$ ).

The avoidance attachment dimension did not significantly differ according to the presence or absence of male caregiver psychiatric difficulties ( $u = 93.5, p = 0.224$ ) or female caregiver psychiatric difficulties ( $u = 80.5, p = 0.216$ ). Those participants who recalled domestic violence had significantly lower avoidance attachment dimension scores than those who recalled no domestic violence ( $u = 55, p = 0.013$ ). This result is not in the predicted direction and should be rejected. However, it remains significant at the two-tailed level of probability and is of clinical interest.

### 3.5.3 Parental Psychological Availability

#### 3.5.3.1 *Parental Love and Care*

Table 3.5.3.1a column one shows that the anxiety attachment dimension was not correlated with any of the measures of parental love and care or its predictability. Table 3.5.3.1a column two shows a significant negative correlation between combined caregiver love and care and the avoidance attachment dimension ( $r = -0.332, p = 0.039$ ). No other measures of caregiver psychological availability, including predictability, were found to correlate with either of the attachment dimensions.

**Table 3.5.3.1a: Associations Between Attachment Dimensions and Parental Psychological Availability**

	Anxiety	Avoidance
Female caregiver 0-11 years (a)	$r = -0.161, p = 0.202$	$r = -0.279, p = 0.071$
Female caregiver 12-16 years (a)	$r = -0.274, p = 0.075$	$r = -0.299, p = 0.058$
Total female caregiver	$r = -0.246, p = 0.099$	$r = -0.300, p = 0.057$
Female caregiver predictability (b)	$r = 0.017, p = 0.465$	$r = 0.114, p = 0.278$
Male caregiver 0-11 years (a)	$r = -0.143, p = 0.230$	$r = -0.276, p = 0.074$
Male caregiver 12-16 years (a)	$r = -0.068, p = 0.366$	$r = -0.176, p = 0.184$
Total male caregiver	$r = -0.120, p = 0.267$	$r = -0.267, p = 0.081$
Male caregiver predictability (b)	$r = 0.089, p = 0.324$	$r = 0.187, p = 0.165$
Combined caregiver	$r = -0.213, p = 0.134$	$r = -0.332, p = 0.039$
Combined caregiver predictability	$r = 0.073, p = 0.354$	$r = 0.016, p = 0.468$

(a) Parental love and care was rated on a 1 - 5 likert-scale, where 1 = not at all, to 5 = very much.

(b) Predictability of parental love and care was rated on a 1 - 5 likert-scale, where 1 = not at all predictable, to 5 = always predictable.

### 3.5.3.2. *Parental Attachment Behaviour*

The anxiety and avoidance attachment dimensions were not significantly correlated with any of the ratings of caregiver attachment behaviours.

## 3.5.4 Emotional Abuse

Table 3.5.4a shows significant negative correlations between the anxiety attachment dimension and the combined total of emotional abuse by caregivers ( $r = -0.325, p = 0.040$ ) and the total of emotional abuse by the male caregiver ( $r = -0.319, p = 0.043$ ). However these results are not in the predicted direction and therefore are rejected. Additionally, neither of these results were statistically significant at the two-tailed probability level.

Table 3.5.4a shows that the avoidance attachment dimension was significantly negatively correlated with the predictability of male caregiver emotional abuse ( $r = -0.356, p = 0.018$ ) and the combined caregivers predictability of emotional abuse ( $r = -0.439, p = 0.010$ ). Although these results are not in the predicted direction and should be rejected, they remain statistically significant at the two-tailed probability level and are of clinical interest.

**Table 3.5.4a: Associations Between Attachment Dimensions and Emotional Abuse**

Number of Types n = 31	Combined Caregiver	Female Caregiver	Male Caregiver
Attachment Anxiety	$r = -0.325, p = 0.040$	$r = -0.228, p = 0.112$	$r = -0.319, p = 0.043$
Attachment Avoidance	$r = 0.083, p = 0.332$	$r = 0.112, p = 0.278$	$r = 0.023, p = 0.452$

Anxiety	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 29	$r = -0.027, p = 0.446$	$r = 0.103, p = 0.301$	$r = 0.166, p = 0.199$	$r = -0.183, p = 0.176$
Female Caregiver n = 29	$r = 0.151, p = 0.221$	$r = 0.081, p = 0.341$	$r = 0.083, p = 0.337$	$r = -0.092, p = 0.324$
Male Caregiver n = 29	$r = -0.110, p = 0.289$	$r = 0.155, p = 0.215$	$r = 0.143, p = 0.234$	$r = -0.263, p = 0.088$

Avoidance	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 29	$r = -0.007, p = 0.485$	$r = 0.021, p = 0.458$	$r = -0.103, p = 0.300$	$r = -0.439, p = 0.010$
Female Caregiver n = 29	$r = 0.245, p = 0.096$	$r = -0.046, p = 0.407$	$r = -0.138, p = 0.242$	$r = -0.115, p = 0.284$
Male Caregiver n = 29	$r = -0.021, p = 0.457$	$r = 0.073, p = 0.356$	$r = 0.008, p = 0.484$	$r = -0.398, p = 0.018$

Table 3.5.4b shows a significant negative correlation between the anxiety attachment dimension and the predictability of threats by the male caregiver ( $r = -0.453, p = 0.034$ ). Table 3.5.4b shows that none of the measures of threats by caregivers were significantly correlated with the avoidance attachment dimension.

**Table 3.5.4b: Associations Between Attachment Dimensions and Threats**

Number of Types n = 31	Combined Caregiver	Female Caregiver	Male Caregiver
Attachment Anxiety	$r = -0.154, p = 0.208$	$r = -0.038, p = 0.421$	$r = -0.137, p = 0.235$
Attachment Avoidance	$r = 0.015, p = 0.470$	$r = 0.041, p = 0.415$	$r = 0.065, p = 0.366$

Anxiety	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 26	$r = -0.306, p = 0.108$	$r = -0.223, p = 0.187$	$r = 0.070, p = 0.395$	$r = -0.347, p = 0.079$
Female Caregiver n = 21	$r = -0.148, p = 0.323$	$r = -0.351, p = 0.131$	$r = 0.053, p = 0.435$	$r = -0.253, p = 0.214$
Male Caregiver n = 24	$r = -0.285, p = 0.133$	$r = -0.213, p = 0.206$	$r = 0.080, p = 0.380$	$r = -0.453, p = 0.034$

Avoidance	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 26	$r = -0.260, p = 0.149$	$r = 0.029, p = 0.455$	$r = -0.087, p = 0.370$	$r = 0.023, p = 0.463$
Female Caregiver n = 21	$r = -0.056, p = 0.431$	$r = -0.032, p = 0.461$	$r = -0.266, p = 0.201$	$r = 0.007, p = 0.491$
Male Caregiver n = 24	$r = -0.296, p = 0.124$	$r = 0.023, p = 0.464$	$r = -0.015, p = 0.476$	$r = 0.107, p = 0.342$

### 3.5.5 Restraint

Table 3.5.5a shows that the anxiety attachment dimension is significantly correlated with the total duration of restraint ( $r = 0.454, p = 0.013$ ), duration of restraint by the female caregiver ( $r = 0.743, p \leq 0.0005$ ), age at which restraint by the male caregiver began ( $r = -0.616, p = 0.001$ ), and duration of restraint by the male caregiver ( $r = 0.420, p = 0.029$ ).

Table 3.5.5a shows a significant correlation between the avoidance attachment dimension and the predictability of restraint by the male caregiver ( $r = 0.417, p = 0.048$ ). None of the other measures of restraint were significantly correlated with the avoidance attachment dimension.

**Table 3.5.5a: Associations Between Attachment Dimensions and Restraint**

Number of Types n = 31	Combined Caregiver	Female Caregiver	Male Caregiver
Attachment Anxiety	$r = -0.038, p = 0.421$	$r = 0.002, p = 0.495$	$r = -0.025, p = 0.449$
Attachment Avoidance	$r = -0.139, p = 0.232$	$r = -0.226, p = 0.115$	$r = -0.052, p = 0.392$

Anxiety	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 25	$r = -0.306, p = 0.073$	$r = 0.454, p = 0.013$	$r = -0.130, p = 0.273$	$r = -0.017, p = 0.469$
Female Caregiver n = 18	$r = -0.147, p = 0.287$	$r = 0.743, p = 0.000$	$r = 0.076, p = 0.385$	$r = 0.200, p = 0.221$
Male Caregiver n = 22	$r = -0.616, p = 0.001$	$r = 0.420, p = 0.029$	$r = -0.011, p = 0.481$	$r = -0.170, p = 0.231$

Avoidance	Age at Start	Duration (Months)	Frequency	Predictability
Combined caregivers n = 25	$r = 0.049, p = 0.424$	$r = 0.104, p = 0.341$	$r = -0.127, p = 0.314$	$r = 0.222, p = 0.188$
Female Caregiver n = 18	$r = 0.017, p = 0.478$	$r = 0.303, p = 0.157$	$r = -0.291, p = 0.168$	$r = 0.194, p = 0.272$
Male Caregiver n = 22	$r = -0.091, p = 0.364$	$r = 0.258, p = 0.159$	$r = -0.191, p = 0.231$	$r = 0.417, p = 0.048$

### 3.5.6 Physical Abuse

Table 3.5.6a shows the anxiety attachment dimension was significantly negatively correlated with the total physical abuse by the female caregiver ( $r = -0.358, p = 0.026$ ) and the total physical abuse by the male caregiver ( $r = -0.341, p = 0.033$ ). These results are not in the predicted direction and therefore are rejected. Furthermore these results were not significant at the two-tailed probability level. The anxiety attachment dimension was significantly correlated with the combined frequency of caregiver physical abuse ( $r = 0.355, p = 0.041$ ). Table 3.5.6a shows that the avoidance attachment dimension was significantly correlated with the duration of physical abuse by the female caregiver ( $r = 0.386, p = 0.043$ ).

**Table 3.5.6a: Associations Between Attachment Dimensions and Physical Abuse**

Number of Types n = 31	Combined Caregiver	Female Caregiver	Male Caregiver
Attachment Anxiety	$r = -0.258, p = 0.084$	$r = -0.358, p = 0.026$	$r = -0.341, p = 0.033$
Attachment Avoidance	$r = -0.134, p = 0.341$	$r = -0.206, p = 0.137$	$r = -0.234, p = 0.107$

Anxiety	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 26	$r = -0.215, p = 0.151$	$r = 0.050, p = 0.406$	$r = 0.355, p = 0.041$	$r = -0.210, p = 0.157$
Female Caregiver n = 21	$r = -0.151, p = 0.262$	$r = -0.250, p = 0.144$	$r = 0.319, p = 0.085$	$r = -0.205, p = 0.193$
Male Caregiver n = 24	$r = -0.283, p = 0.090$	$r = 0.121, p = 0.287$	$r = 0.198, p = 0.177$	$r = -0.088, p = 0.341$

Avoidance	Age at Start	Duration (Months)	Frequency	Predictability
Combined Caregivers n = 26	$r = -0.213, p = 0.153$	$r = 0.201, p = 0.168$	$r = 0.112, p = 0.297$	$r = -0.097, p = 0.322$
Female Caregiver n = 21	$r = -0.324, p = 0.082$	$r = 0.386, p = 0.046$	$r = 0.188, p = 0.213$	$r = 0.113, p = 0.318$
Male Caregiver n = 24	$r = -0.200, p = 0.175$	$r = 0.071, p = 0.370$	$r = -0.048, p = 0.411$	$r = -0.131, p = 0.271$

### 3.5.7 Childhood Sexual Abuse (CSA)

Table 3.5.7a shows that the anxiety attachment dimension was only significantly correlated with the frequency of CSA by male non-caregivers ( $r = 0.487$ ,  $p = 0.046$ ).

**Table 3.5.7a: Associations Between the Anxiety Attachment Dimension and CSA**

Number of Types n = 31	Any	Male Caregiver	Non-Caregiver	Female Non-Caregiver	Male Non-Caregiver
Attachment Anxiety	$r = 0.050$ , $p = 0.397$	$r = -0.078$ , $p = 0.342$	$r = -0.033$ , $p = 0.431$	$r = -0.093$ , $p = 0.313$	$r = 0.068$ , $p = 0.361$

Anxiety	Age at Start	Duration (Months)	Frequency	Predictability
Any CSA n = 20	$r = -0.109$ , $p = 0.329$	$r = 0.166$ , $p = 0.248$	$r = 0.175$ , $p = 0.237$	$r = -0.007$ , $p = 0.489$
Male Caregiver n = 5	$r = 0.600$ , $p = 0.142$	$r = -0.667$ , $p = 0.109$	$r = -0.632$ , $p = 0.126$	$r = -0.791$ , $p = 0.056$
Non-Caregiver n = 19	$r = -0.134$ , $p = 0.293$	$r = 0.229$ , $p = 0.173$	$r = 0.332$ , $p = 0.082$	$r = 0.012$ , $p = 0.481$
Female Non-Caregiver n = 8	$r = 0.024$ , $p = 0.477$	$r = -0.195$ , $p = 0.322$	$r = -0.250$ , $p = 0.275$	$r = -0.482$ , $p = 0.113$
Male Non-Caregiver n = 14	$r = -0.026$ , $p = 0.465$	$r = 0.329$ , $p = 0.125$	$r = 0.487$ , $p = 0.046$	$r = 0.172$ , $p = 0.287$

Table 3.5.7b shows significant negative correlations between the avoidance attachment dimension and the duration of CSA by the male caregiver ( $r = -0.975$ ,  $p = 0.002$ ) and predictability of CSA by the male caregiver ( $r = -0.949$ ,  $p = 0.007$ ).

**Table 3.5.7b: Associations Between the Avoidance Attachment Dimension and CSA**

Number of Types n = 31	Any	Male Caregiver	Non-Caregiver	Female non-caregiver	Male non-caregiver
Attachment Avoidance	$r = -0.002$ , $p = 0.496$	$r = -0.046$ , $p = 0.404$	$r = -0.062$ , $p = 0.373$	$r = -0.109$ , $p = 0.283$	$r = -0.003$ , $p = 0.493$

	Age at Start	Duration (Months)	Frequency	Predictability
Any CSA n = 20	$r = -0.065$ , $p = 0.397$	$r = 0.034$ , $p = 0.445$	$r = 0.001$ , $p = 0.498$	$r = -0.051$ , $p = 0.418$
Male Caregiver n = 5	$r = 0.800$ , $p = 0.052$	$r = -0.975$ , $p = 0.002$	$r = -0.791$ , $p = 0.056$	$r = -0.949$ , $p = 0.007$
Non-Caregiver n = 19	$r = -0.083$ , $p = 0.367$	$r = 0.145$ , $p = 0.277$	$r = 0.174$ , $p = 0.238$	$r = -0.011$ , $p = 0.482$
Female Non-caregiver n = 8	$r = 0.388$ , $p = 0.171$	$r = -0.220$ , $p = 0.301$	$r = -0.150$ , $p = 0.361$	$r = -0.482$ , $p = 0.113$
Male Non-Caregiver n = 14	$r = -0.122$ , $p = 0.339$	$r = 0.119$ , $p = 0.342$	$r = 0.101$ , $p = 0.371$	$r = -0.020$ , $p = 0.474$

### 3.5.8 Summary

Overall the results show mixed support for hypothesis four. The results highlighted specific aspects of parenting and abuse, which were associated with higher rates of the anxiety and avoidance attachment dimensions. Higher scores on the anxiety attachment dimension were significantly associated with: less predictability of threats by male caregiver; longer duration of restraint by male and female caregivers; younger age at which restraint by male caregiver began; more frequent physical abuse by caregivers; and more frequent CSA by male non-caregivers.

Higher scores on the avoidance attachment dimension were significantly associated with: less reported combined caregiver love and care; greater predictability of restraint by male caregiver; longer duration of physical abuse by female caregiver; and less predictability of CSA by male caregiver.

The avoidance attachment dimensions showed some associations in an unexpected direction. Higher scores on the avoidance attachment dimension were significantly associated with participants who recalled that there was no domestic violence; less predictability of emotional abuse by male caregivers; and shorter duration over which child sexual abuse occurred by a male caregiver.

### **3.6 Hypothesis Five**

The fifth hypothesis stated that there would be associations between offence types and attachment dimensions. The participant's offence type was assessed from their offence history on their case files. Participants were classified into one of the following categories: violent non-sexual offences, ranging from murder to threats of injury or death during a robbery; sexual offences against adults, ranging from indecent assault to rape; and sexual offences against children. Where participant had committed offences from more than one category, they were assigned to one category on the basis of the type of offences. For instance, if a participant had committed sexual offences against adults and children they would be assigned to the category of sexual offences against children, if they had committed violent offences and violent sexual offences against adults they would assigned to the category of violent sexual offences against adults. Twenty

three percent of participants had committed violent non-sexual offences, 48 percent had committed sexual offences against adults and 29 percent had committed sexual offences against children.

The anxiety attachment dimension was found to significantly differ across offence types ( $\chi^2 = 7.641$ ,  $df = 2$ ,  $p = 0.022$ ). Further analysis found that the anxiety attachment dimension was only significantly higher for those participants who had committed sex offences against children compared with those who had committed violent non-sex offences ( $u = 21.5$ ,  $p = 0.007$ ). There were no significant differences in the anxiety attachment dimension between those participants who had committed violent non-sexual offences and those who had committed sex offences against adults ( $u = 40.0$ ,  $p = 0.407$ ) or between those who had committed sexual offences against children and those who committed sexual against adults ( $u = 12.5$ ,  $p = 0.072$ ). There was no significant difference in the avoidance attachment dimension across offence types. The cross-tabulation of offence type by adult attachment style, using likelihood ratio chi square analysis was found to be non-significant ( $\chi^2 = 6.06$ ,  $df = 6$ ,  $p = 0.416$ ).

### **3.6 Additional Analysis**

#### **3.7.1 Personality Disorder, Attachment Style and Childhood Experiences**

An analysis of the relationship between childhood variables and attachment style and PD was not possible due to the small numbers of participants who had experiences of the majority of childhood variables. Instead, a two-stage analysis was conducted, using stepwise multiple regression.

First, the attachment and childhood factors were examined to determine if any were predictive of the severity of PD. The anxiety and avoidance attachment dimensions were entered into a stepwise multiple regression. The anxiety attachment dimension was found to be predictive of severity of PD to the extent that it accounted for 18 percent of the variance ( $F = 7.526$ ,  $df = 1, 28$ ,  $p = 0.010$ ).

The eight aspects of parenting, (parental physical and psychological availability, parental psychiatric difficulties; emotional abuse; threats; restraint; physical abuse and CSA by non-caregivers and by male non-caregivers), were entered into separate stepwise multiple regressions, with severity of PD as the dependent variable. CSA by caregivers and CSA by female non-caregivers were not included in this analysis due to the small sample size.

Only the total number of separations was found to be predictive of the severity of PD, accounting for 11 percent of the variance ( $F = 4.824$ ,  $df = 1, 29$ ,  $p = 0.036$ ). However when the total number of separations and the anxiety attachment dimension were entered into a stepwise multiple regression, only the anxiety attachment dimension was found to be predictive of the severity of PD, as reported above.

Second, the childhood factors were examined to determine which were predictive of the attachment dimensions. Each of the areas of parenting were entered into separate stepwise multiple regressions, first with the anxiety attachment dimension and then with the avoidance attachment dimension, as the dependent variables. Again, CSA by caregivers and CSA by female non-caregivers were not included in this analysis due to a small sample size.

Parental psychiatric disorder, parental physical and psychological availability, emotional abuse, physical abuse and CSA, were all not found to be predictive of the anxiety attachment dimension. Of those participant's who reported receiving threats, only the predictability of threats by the male caregiver was found to be predictive of the anxiety attachment dimension ( $F = 5.118$ ,  $df = 1, 15$ ,  $p = 0.039$ ), accounting for 21 percent of the variance.

Of those participants who reported being restrained by either caregiver, total duration was found to be predictive of the anxiety attachment dimension ( $F = 5.213$ ,  $df = 1, 22$ ,  $p = 0.032$ ) accounted for 16 percent of the variance. Of the participants who reported restraint by their female caregiver, the combination of duration and age at which it started were found to be predictive of the anxiety attachment dimension ( $F = 12.291$ ,  $df = 2, 14$ ,  $p = 0.001$ ) and accounted for 59 percent of the variance. Of those participants restrained by the male caregiver, the age at which it started as found to be predictive of the anxiety attachment dimension ( $F = 8.284$ ,  $df = 1, 19$ ,  $p = 0.010$ ) accounting for 27 percent of the variance.

All of the four restraint variables found to be predictive of the anxiety attachment dimension were entered into a stepwise multiple regression. Of those participants who reported restraint by both caregivers, the combination of duration of restraint by the female caregiver and the total duration, was found to be predictive of the anxiety attachment dimension ( $F = 10.762$ ,  $df = 2, 11$ ,  $p = 0.003$ ) accounting for 60 percent of the variance.

Parental physical availability, parental psychiatric difficulties, parental attachment behaviours, threats, restraint, physical abuse and CSA were not found to be predictive of the avoidance attachment dimension. An investigation of CSA by a caregiver and female non-caregivers were not possible due to the small sample size.

The parental psychological availability, in terms of the extent to which participants felt loved and cared for by all caregivers was predictive of the avoidance attachment dimension ( $F = 5.256$ ,  $df = 1, 27$ ,  $p = 0.030$ ) accounting for 13 percent of the variance. The extent to which they felt loved and cared for by their female caregiver during their childhood only, was predictive of the avoidance attachment dimension ( $F = 5.740$ ,  $df = 1, 28$ ,  $p = 0.024$ ) accounting for 14 percent of the variance. When these two variables were entered into a stepwise multiple regression, only female caregiver love and care was found to be predictive of the avoidance attachment dimension ( $F = 5.594$ ,  $df = 1, 27$ ,  $p = 0.025$ ), accounting for 14 percent of the variance. Of those who reported emotional abuse, only the age at which emotional abuse by the female caregiver started was found to be predictive of the avoidance attachment dimension ( $F = 4.428$ ,  $df = 1, 26$ ,  $p = 0.045$ ), accounting for 12 percent of the variance.

These results indicate the possible role of attachment anxiety in the severity of PD and the results provide initial evidence of the experiences, which may influence attachment anxiety and avoidance.

## **4 Discussion**

This section will discuss the results for each hypothesis, within the context of the previous research and theory. This will be followed by a discussion of the limitations, strengths and clinical implications of the study and future research.

### **4.1 Hypothesis One**

Hypothesis one stated that predominantly insecure attachment styles would be found within this group of participants, compared with the distribution found in a general population. The results support this hypothesis. The majority of participants were classified as having an insecure adult attachment style by self-report and staff-report. This finding is consistent with previous studies of a non-clinical PD sample (e.g., Brennan & Shaver, 1998), clinical PD samples (e.g., Sack et al, 1996; West et al, 1994), a forensic PD sample (e.g., Van IJzendoorn et al, 1997), and forensic samples (e.g., Smallbone & Dadds, 1998; Ward et al, 1996).

The distribution of insecure attachment styles in the present study is dissimilar to those found in general populations. In the present study there were predominantly preoccupied and fearful attachment styles with very few dismissing attachment styles. Studies of general populations have found mainly avoidant (dismissing) and a relatively small number of the ambivalent (preoccupied) insecure attachment styles (Bartholomew & Horowitz, 1991; Kohnen & Bera, 1998). Furthermore, fewer participant-rated dismissing attachment styles were found in the present study, compared with other clinical PD samples (Sack et al, 1996; Van IJzendoorn et al, 1997). The distribution of attachment styles found in the present study may reflect the

selection of patients by the PD service, i.e., select patients who are more likely to engage initially, than those who are not likely to engage initially.

The frequency of insecure attachments found in the present study is likely to be an underestimation, as none of the participants were classified as secure on both measures of attachment style by either self-report or staff-report. Explanations of possible under-reporting of insecure attachment styles, include: the belief that they are 'normal' in the extent to which they are anxious or avoid close relationships, i.e., answering through their attachment style; social desirability; limited insight into their attachment style. Van IJzendoorn et al's (1997) study of male forensic PD patients, which used the Adult Attachment Interview (AAI), reported a similar distribution to that reported by the staff in the present study. In particular, there were similarly high frequencies of the fearful/disorganised attachment style. This suggests that for this population, staff ratings of patient's adult attachment styles may be more accurate than participant's ratings of their attachment styles. This area will be discussed further in a later section.

## **4.2 Hypothesis Two**

### **4.2.1 Hypothesis Two (a)**

Hypothesis two (a) stated that more severe PD would be associated with one or both of the attachment dimensions.

The results showed that greater participant-rated attachment anxiety was associated with more severe PD, in terms of the total number of symptoms. This is partially consistent with Van IJzendoorn et al (1997) study, which found that the total number of PD symptoms was

significantly related to attachment insecurity. However the attachment insecurity score was constructed of behaviours which reflected both attachment anxiety and avoidance gathered in the AAI, suggesting that attachment avoidance may also be associated with more severe PD. The attachment avoidance was not found to be significantly associated with the severity of PD in the present study, which is inconsistent with Van IJzendoorn et al (1997), as mentioned above. Previous studies of avoidant PD have found high levels of social withdrawal, while studies of dependent and borderline PD have found high levels of dependency on close relationships (e.g., Trull et al, 1987; Sack et al, 1996). These results suggest that the degree of attachment avoidance varies between different PDs. The distribution of attachment styles in the present study, indicates a mix of high and low attachment avoidance (e.g., preoccupied and fearful), therefore reducing the likelihood of a significant association between attachment avoidance and severity of PD in this sample.

No significant differences were found between the attachment styles on the severity of PD. This is contrary to Van IJzendoorn et al's (1997) findings, where participants classified as having a dismissing adult attachment style had less severe PD, and adults classified in the 'cannot classify' category showed the greatest severity of PD. Furthermore, Brennan and Shaver (1998) in a sample of college students found that the likelihood of having at least one PD was greater in the fearful group than the preoccupied group, which in turn was greater than the dismissing group.

One possible explanation for finding no difference in severity of PD between attachment styles, is the validity of the self-report PD measure. It is probable that the use of a self-report measure of PD in a forensic PD sample may have less validity, than its use with a college sample. This could be due to strong defences, which protect the individuals from acknowledging their difficulties and the consequences of them. There was reason to suspect

that there may have been consistent under-reporting of the PD criteria by some of the participants, as well as over-reporting by others. The likelihood of a lack of awareness of their difficulties would also affect the validity of the participant-rated attachment measure. These limitations will be examined in greater detail in a later section.

Overall, these results partially support the hypothesis as greater attachment anxiety is associated with more severe PD in this sample. However, attachment avoidance was not found to be significantly associated with severity of PD. This suggests that individuals in this population with more severe PD, have internal working models which contain beliefs that others are likely to rejected, abandoned and hurt them. In turn, these beliefs are likely to influence individual's interpretations of other people's behaviour and their own behaviour towards others. The results of the present study are consistent with the conceptualisation of PD as predominantly consisting of interpersonal difficulties.

#### 4.2.2 Hypothesis Two (b)

Hypothesis two (b) stated that there would be specific links between PDs and the attachment dimensions. It was not possible to examine direct associations between adult attachment styles and different PDs due to the high rate of co-morbidity of PDs, which prevented the majority of participants being allocated to one type of PD or one PD cluster.

However, initial analysis found evidence to suggest that greater attachment anxiety was associated with higher total scores for cluster B and cluster C PDs. This is partially consistent with Van IJzendoorn et al (1997) where the majority of male PD offenders with cluster C PDs were classified as having a preoccupied adult attachment style, indicating high attachment

anxiety. The association found between attachment anxiety and cluster B PDs is consistent with previous studies of specific PDs in that cluster (e.g., Sperling et al, 1991; Brennan & Shaver, 1998).

No significant associations were found between attachment avoidance and total scores for cluster B and C PDs. This is partially inconsistent with previous studies, which have found that narcissistic, antisocial and avoidant PDs are more associated with a fearful adult attachment style (e.g., Brennan & Shaver, 1998), indicating high levels of attachment avoidance. However, it is consistent with those studies which have found that borderline and dependent PDs are associated with a preoccupied adult attachment style (e.g., Sack et al, 1996; West et al, 1994), indicating low levels of attachment avoidance. It is probable that the mix of attachment styles in the present study will have contributed to the mixed results found in the present study. Furthermore, as highlighted in the introduction, the PD clusters were developed according to descriptive similarities, rather than on a theoretical basis, which would limit the likelihood of finding specific associations with all of the clusters.

The associations between participant's scores for each PD and the attachment dimensions were investigated, however the high degree of co-morbidity of PDs limits the interpretation of these results. A significant positive association was found between attachment anxiety and all of the PDs, except for schizoid and schizotypal PDs. This is partially consistent with Brennan and Shaver's (1998) findings that paranoid, avoidant, narcissistic, borderline, antisocial and dependent PDs were more frequently associated with attachment styles characterised in part by high attachment anxiety. However, Brennan and Shaver (1998) also found that schizotypal PD was more commonly associated with an attachment style characterised by a high level of attachment anxiety, which is inconsistent with the findings of this study. No other studies to date have been found which have reported the links between schizotypal PD and attachment style.

Greater attachment avoidance was significantly associated with higher scores on schizoid and avoidant PDs. This is consistent with previous studies, which have found schizoid and avoidant PDs to be associated with attachment styles characterised in part, by high attachment avoidance (e.g., West et al, 1994). The lack of significant associations between greater attachment avoidance and higher scores on borderline and histrionic PDs is inconsistent with previous studies which have found these PDs to be associated with attachment styles low on attachment avoidance (e.g., Sperling et al, 1991).

Antisocial, narcissistic, paranoid, obsessive-compulsive, dependent and depressive PDs all showed no significant relationship with attachment avoidance. This is inconsistent with previous studies, which have found antisocial, paranoid, obsessive-compulsive and narcissistic PDs to be associated with high attachment avoidance (Brennan & Shaver, 1998; Sheldon & West, 1990) and dependent PD to be associated with low attachment avoidance (Livesley et al, 1990; West et al, 1994).

The depressive PD is a new category, currently identified by DSM-IV for research purposes only, and no studies to date were found relating this PD to attachment style. Depressive PD was significantly associated with high attachment anxiety only. This result was unexpected as the criteria for this PD would suggest attachment avoidance.

Overall the results of the present study showed some inconsistencies with previous studies on clinical and non-clinical PD populations. It is likely that a range of explanations contributes to these inconsistencies. One possible explanation is the different population groups that studies have investigated. For instance Brennan and Shaver (1998) sampled college students, Sack et al (1996) and West et al (1994) focused on clinical PD populations, and the participants in the present study are detained PD offenders. These differences suggest

different levels of severity of PD, as well as differences in other influencing factors such as socio-economic status and family experiences. Another possible explanation is that the majority of studies have carefully selected participants who present with a single or predominantly one PD, unlike the mixed PD presentation in the present study.

A specific difference between the participants of the present study and previous studies is their experiences of both offending and abuse, which may have contributed to differences in attachment anxiety or avoidance for specific PDs, compared to previous studies. For instance, individuals with borderline PD, which has been found to be more commonly associated with a preoccupied adult attachment style (e.g., Patrick et al, 1994), is associated with both intense relationships and angry withdrawal. One potential explanation of the lack of a significant negative association between attachment avoidance and borderline PD, is that angry withdrawal is the predominant strategy for some of the participants with borderline PD in the present study, indicating a greater degree of attachment avoidance than would normally be expected. Another explanation is the use of different measures of attachment style and PD, each having different degrees of reliability and validity with different populations. These areas will be explored in a later section.

As well as the possible reasons for the inconsistent findings mentioned previously, all the results have to be interpreted within the context of high co-morbidity of PDs. This is highly likely to influence any relationships between PDs and attachment dimensions. For example, visual analysis of the data found that many of the participants, who scored highly on borderline PD, also scored highly on both dependent and avoidant PD. This may reflect the combined strategies of trying to become intensely close to another person and angry withdrawal due to perceived failures of an attachment figure. Although the high co-morbidity of PDs limits the interpretation of these results, there were strong associations

between severity of the majority of PDs and the attachment dimensions. This is consistent with Crittenden's (1997) conceptualisation of PD as occurring in a combined preoccupied and avoidant (dismissing) attachment style and indicating an anti-integrated personality.

### **4.3 Hypothesis Three**

The third hypothesis stated that higher rates of childhood abuse would be found in this sample compared to community samples, and that more negative childhood experiences would be associated with more severe PD.

#### **4.3.1 Prevalence of Childhood Abuse**

Overall the results found higher prevalence rates of childhood abuse than those reported by community samples (e.g., Silverman et al, 1996). Although the prevalence of emotional abuse is very high, there are currently no community norms against which to compare this sample. The rates of emotional abuse reported in this study are higher than the limited prevalence figures from clinical populations (Thompson & Kaplan, 1999), and are consistent with rates reported by an inpatient PD sample (Zanarini et al, 1997).

The prevalence rates of the present study were compared with those found in a study of inpatients with PD (Zanarini et al, 1997) as they had examined childhood abuse in greater detail than other studies, within a relatively similar population. Although there were male and female participants in Zanarini et al's (1997) study, no gender differences were found in the analysis. The present study found higher rates of emotional and physical abuse by

caregivers, than those reported by Zanarini et al (1997). The reported rates of sexual abuse by a caregiver and any sexual abuse were consistent with those reported by Zanarini et al (1997) and with other previous studies of PD, (e.g., Paris, 1996; Sack et al, 1996).

The results showed that approximately one fifth of the sample reported CSA by a caregiver and that approximately two thirds reported any CSA, a proportion of whom reported single incidences, by a non-caregiver. This is consistent with Zanarini et al's (1997) and Paris et al's (1994) findings. Paris et al (1994) concluded from their results, that the severity of CSA was not specifically related to the aetiology of borderline personality disorder (BPD). However, Zanarini et al (1997) concluded that CSA by a non-caregiver appeared to be an important factor in the aetiology of BPD.

Zanarini et al (1997) noted that where CSA was reported, more verbal and physical abuse was also reported. This is consistent with the present study, which found that those who reported CSA also reported emotional and physical abuse. This finding is also suggestive of Van der Kolk et al's (1991, p.1669) conclusion that a lack of secure attachment helps to maintain the impact of childhood trauma. A further contributing factor to the possible impact of the single incidences of CSA is likely to have been the prevailing beliefs about CSA at the time that it took place. This was highlighted by comments from several participants, for instance one participant reported that he told his parents and they told him that he must have done something to make it happen.

Overall, the pattern of high rates of childhood abuse reported in the present study are consistent with recent research in PD populations (Miller & Lisak, 1999; Modestin et al, 1998) and in male prisoner populations (e.g., Fondacaro et al, 1999; Stein & Lewis, 1992). These results provide support for the high prevalence rates of childhood abuse in a mixed PD

sample, with predominantly cluster B and C presentation. Further research is required to examine whether these results are representative of other PD samples which display predominantly cluster A PDs only.

#### 4.3.2 Parental Physical Availability

More severe PD was significantly associated with more separations during childhood. Furthermore, a surprisingly low number of childhood attachment figures were reported by the participants, on average. Previous studies have found an association between borderline PD and repeated separations (Ogata et al, 1990; Patrick et al, 1994). However, Modestin et al (1998) found that separations were less important than physical and sexual abuse and domestic violence in a sample of people with any PD. The present study provides evidence that separations were significantly associated with the severity of PD in a sample of men with predominantly mixed PDs.

#### 4.3.3 Parental Psychiatric Difficulties

More severe PD was significantly related to female psychiatric difficulties, as predicted and not with male psychiatric difficulties. This is as expected, as the majority of the participants reported that their female caregiver was their primary carer. No previous studies to date were found which investigated parental psychiatric difficulties and PD. However, studies have found that PD samples report poorer parental relationships, including lack of care, neglect, greater parental conflict and domestic violence, than control samples (e.g., Mulder et al, 1994) and patients with other psychiatric difficulties (e.g., Bryne et al, 1990). The results of the present study are consistent with studies of child development, which have found associations between maternal psychiatric difficulties and poorer child development (e.g., Lyons-Ruth, 1996).

#### 4.3.4 Parental Psychological Availability

No association was found between the severity of PD and parental love and care or parental attachment behaviour. This was inconsistent with previous studies, which have found that adults with PD reported lower levels of parental care (e.g., Bryne et al, 1990; Mulder et al, 1994). However, previous studies examined the extent to which a PD sample and a non-PD sample differ in their reports of parental care. Modestin et al (1998) reported a significant association between paternal care and PD pathology in men and that maternal care was only associated with cluster B PD pathology. Modestin et al (1998) used the Parental Bonding Instrument (PBI: Parker, Tuplin & Brown, 1979), which is a 25 item questionnaire assessing participant's recollections of their parents in attitudes and behaviours towards them.

One possible explanation for the lack of significant findings in the present study is the limitations of the parental attachment measure. This measure is based on the three-category classification of attachment style, which limits to range of possible answers. Furthermore, the measure requires participants to evaluate their parent's behaviour towards them, rather than report specific behaviours. The PBI may facilitate more accurate responses as it asks about many specific behaviours and attitudes. This may reduce the extent to which participant's answers are influenced by their beliefs about how they should describe their caregivers and possibly reduce the influence of their attachment style on their answers. Several of the participant's in this study appeared to showed signs of anxiety about stating that as a child they felt that their parents did not love or care about them, and they emphasised that they now believed that their parents did love them.

#### 4.3.5 Emotional Abuse

No measures of emotional abuse were found to be associated with severity of PD. One explanation is the emotional abuse as defined by the measure used in this study may not be severe enough to contribute to the development of PD. There was a significant association between more severe PD and younger age when the threats by a female caregiver began. This suggests that more severe PD is associated with threats to a child beginning at a younger age, which is consistent with psychodynamic theories and research on the effects of child abuse (Elliott, 1994). These results suggest that threats to abandon, hurt or kill, rather than criticism, guilt and being made to feel like a bad person, influence the severity of PD.

High rates of emotional and verbal abuse by caregivers have been reported by PD populations in comparison with the limited norms available (Sack et al, 1996; Zanarini et al, 1997).

However, no studies to date were found which examined associations between the extent and nature of the emotional abuse and severity of PD. Possible explanations as to why research has not examined this area may include difficulties in defining emotional abuse, the limited recognition of the potential damage that emotional abuse can have, and focusing on sexual abuse and to a lesser extent physical abuse.

#### 4.3.6 Physical Abuse

No significant associations were found between the total number of types of physical abuse and severity of PD. This is consistent with studies which had found no association between severity of physical abuse and number of PD symptoms in an inpatient PD sample (Modestin et al, 1998) and in a sample of college males (Miller & Lisak, 1999). Furthermore, no significant associations were found between specific aspects of physical abuse and severity of

PD . This is inconsistent with previous research, which has found significant associations between specific aspects of abuse and interpersonal outcomes (e.g., Elliott, 1994). No measures of restraint were associated with the severity of PD. No comparisons can be made, as no other studies to date were found which investigated childhood restraint and PD.

#### 4.3.7 Childhood Sexual Abuse (CSA)

No significant associations were found between the measures of CSA and severity of PD. One possible explanation for the lack of associations is methodological limitations, including accuracy of the measures, limitations of retrospective recall and small sample size.

Alternatively, the context within which CSA took place, including other types of abuse and relationships with caregivers, is likely to influence the impact of CSA.

However, the lack of association between the severity of PD and the severity of CSA was consistent with Modestin et al (1998), where no significant correlations were found between CSA and severity of PD in male PD inpatients. Miller and Lisak (1999) did find that the greater number of types of sexual abuse was significantly associated with more PD symptoms, in a sample of college males, although they concluded that the predictive ability of the association was clinically negligible. However, Millar and Lisak (1999) used a shortened form of the PDQ-R (Hyler & Rieder, 1987), which measured symptoms of only seven PDs, which may have contributed to the minimally predictive associations.

#### 4.3.8 Summary

Overall the results indicate limited direct relationships between specific aspects of experiences of parenting and abuse and the severity of PD. However, all the significant relationships, with exception of the total number of separations, involved the female caregiver. Modestin et al (1998) found that only paternal care and control and physical abuse were related to severity of PD in men. However, Modestin et al (1998) did not examine abuse by separate caregivers. The results of the present study, while inconsistent with Modestin et al, (1998), tentatively suggests that negative experiences by the female caregiver has more significance to the development of PD than those by male caregivers.

All except one, of the significant relationships were between severity of PD and characteristics of abuse, e.g., age. This highlights the importance of a detailed investigation of abuse characteristics, and may help to understand the mixed results of previous studies.

Multiple regression analysis found that only the number of separations was significantly associated with severity of PD within this population. This suggests that repeated experiences of separations from caregivers, has a primary influence on the development of PD. It is possible that qualitative differences in these experiences of separations and their interpretations by the participants, influences the different types of PDs. The present study and previous studies suggest that the extent of multiple experiences of child abuse and neglect may influence the severity of PD (e.g., Salzman et al, 1993; Zannarini et al, 1997).

Unfortunately it was not possible to use more sophisticated statistical analysis, such as path analysis, to investigate the relationship of multiple forms of abuse to severity of PD, due to the small sample size.

## **4.4 Hypothesis Four**

The hypothesis stated that more negative childhood experiences would be associated with higher scores on one or both of the attachment dimensions.

### **4.4.1 Parental Physical Availability**

No significant relationships were found between the attachment dimensions and repeated separations. This is inconsistent with previous studies, which have found separations to be associated with insecure adult attachment styles (Bowlby, 1944; Klohnen and Bera, 1998). One possible explanation is that, of those participants who have had repeated separations, some may be high on attachment anxiety or avoidance and others may be low on attachment anxiety or avoidance, depending on specific aspects and interpretations of the separations and their previous attachment style.

No significant relationships were found between parental physical availability and the attachment dimensions. This is inconsistent with previous studies of child attachment, which have found strong links between parental unavailability and neglect and insecure attachment styles (Crittenden, 1995; Lamb et al, 1985). Cross-sectional studies have reported similar associations between parental unavailability and neglect and insecure attachment styles in adult populations (Klohnen & Bera, 1998; McCarthy & Taylor, 1999). One possible explanation of the lack of relationships is the focus on parental physical availability, rather than on multiple aspects of neglect. Furthermore, potential limitations to the validity of self-report measures of attachment style may have influenced the results of the present study and these will be addressed in more detail in a later section.

#### 4.4.2 Parental Psychiatric Difficulties

Parental psychiatric difficulties were not significantly associated with higher scores on the attachment dimensions. This is inconsistent with child attachment studies (Van IJzendoorn, 1995) which have found that maternal histories of psychiatric difficulties are associated with insecure child attachment styles. The lack of significant relationships between the attachment dimensions and parental psychiatric difficulties may be explained by the limitations of the measure, which asks about contact with psychiatric services. This is likely to underestimate the extent of psychiatric difficulties and does not differentiate between types of difficulties. For instance, a recent child attachment study has found associations between frightening maternal behaviour, resulting from unresolved trauma, and insecure-disorganised child attachment style in a non-clinical middle-class sample (Schuengel, Bakermans-Kranenburg & Van IJzendoorn, 1999). A more detailed measure of parental mental health difficulties could improve the study, possibly including questions about any loss or trauma, which is less likely to be affected by retrospective recall (Brewin et al, 1993).

The avoidance attachment dimension was found to be significantly lower in those participants who reported domestic violence between their caregivers. This is not in the predicted direction and therefore should have been rejected. However, this result remains statistically significant at the two-tailed level of probability and is clinically relevant. Several of the participants who reported that their father assaulted their mother, also report that they stopped this once they felt physically big enough to do this. This may be related to lower avoidance in close adult relationships through attitudes and beliefs about women and the particular women they have relationships with. Another possible explanation is that those participants who have a high level of attachment avoidance are more likely not to recall domestic violence as a means of avoiding affect laden memories (Crittenden, 1997). Whether an individual

develops an avoidant attachment style or a non-avoidant style following exposure to domestic violence may depend on associated factors, such as their interpretation of the violence, their perception of their role in it.

#### 4.4.3 Parental Psychological Availability

Lower attachment avoidance was significantly associated with higher total combined caregiver's score for love and care across both childhood and adolescence. This suggests that the more the participants reported feeling loved and cared for by their caregivers during their childhood, the less avoidant they reported being in their close relationships. This is partially consistent with other cross-sectional retrospective studies, which have found that participants with insecure attachment styles reported poorer relationships with their parents (e.g., Klohnen & Bera, 1998; McCarthy & Taylor, 1999; Shaver & Hazen, 1993). However, the lack of relationship between parental psychological availability and attachment anxiety in close relationships is inconsistent with previous adult and child attachment studies (e.g., McCarthy & Taylor, 1999; Haft & Slade, 1989). One possible explanation for only finding a significant association with attachment avoidance is that different parental behaviours may influence the underlying attachment dimensions to different degrees, which then form the building blocks for the attachment categories (Ainsworth et al, 1978; Haft & Slade, 1989).

Parental attachment behaviours were not associated with either of the attachment dimensions. This is inconsistent with the association between attachment avoidance and parental love and care found in the present study, particularly as parental love and care was highly significantly correlated in the expected directions with the secure and avoidant parental attachment behaviours. However, Smallbone and Dadds (1998), using the Hazen and Shaver's (1987) adult and parental attachment measures, found that only the maternal attachment behaviours

were significantly correlated with adult attachment style. One possible explanation of these results is the different aspects that the measures investigate. This may affect the extent to which the participant responses are influenced by their attachment style. For instance, adults with a dismissing attachment style have been found to idealise their parents and have minimal memories with which to back this up (Main, 1991). The parental attachment measure may be more susceptible to parental idealisation than the measure of love and care by caregivers.

#### 4.4.4 Emotional Abuse

Greater predictability of emotional abuse by male caregivers and greater combined predictability of the caregivers were both significantly associated with lower attachment avoidance. This is inconsistent with previous studies, which have found that consistent rejection and neglect have been found to be associated with avoidant child attachment styles (Haft & Slade, 1989). One possible explanation is that retrospective recall of the predictability of parental emotional abuse is more susceptible to memory distortions (Brewin et al, 1993) and distortions driven by attachment style (Main, 1991). No significant associations were found between age at which emotional abuse started and either of the attachment dimensions were found. While this is inconsistent with previous research and theory, the lack of significant associations, may be due to the difficulties in accurately recalling when emotional abuse began.

Greater predictability of threats by the male caregiver was significantly associated with less anxiety attachment. This is consistent with previous child attachment studies, which have found that consistent parental rejection was associated with child attachment styles indicating low levels of attachment anxiety (Lamb et al, 1985). No aspects of threats were associated with attachment avoidance. This is inconsistent with child attachment studies, which have

found associations between parental rejection and attachment avoidance (e.g., Belsky et al, 1984; Egeland et al, 1993). One explanation of the lack of associations between attachment avoidance and threats could be due to idealisation and suppression of memories of parenting associated with attachment styles characterised by attachment avoidance (Main, 1991).

#### 4.4.5 Restraint

Younger age at which restraint by a male caregiver began was significantly associated with greater attachment anxiety. Longer duration over which restraint by both the male and the female caregivers occurred were significantly associated with greater attachment anxiety. No studies were found which reported the associations between restraint and attachment.

However, these findings are consistent with studies of childhood sexual abuse, which have found that the younger the age and the longer the duration were associated with more severe impact in adulthood (Browne & Finklehor, 1986; Elliott, 1994). Although sexual abuse and restraint are very different in the degree of force and violation of the person, the age at which either first occurs may be of importance. Chronological age is a strong indicator of developmental stage, which is a major factor in the range of coping strategies available. The majority of participants reported being sent to their rooms, and this could have been interpreted as an incidence of rejection by their caregivers. This would be consistent with increased attachment anxiety in adult relationships, e.g., a heightened fear of being rejected or abandoned by those they care for.

Greater predictability of restraint by the male caregiver was significantly associated with greater attachment avoidance. This is partially consistent with studies, which have found consistently cold and rejecting parental behaviour to be associated with an avoidant child attachment style, indicating a high level of attachment avoidance (Belsky et al, 1984).

#### 4.4.6 Physical Abuse

Greater frequency of physical abuse by combined caregivers was significantly associated with greater attachment anxiety. Longer duration over which physical abuse by a female caregiver took place was significantly associated with greater attachment avoidance. These results are partially consistent with previous research, which has found that both children and adults with a history of child abuse show more avoidant and ambivalent attachment behaviour (Crittenden, 1992; McCarthy & Taylor 1999). This is also consistent with studies which have found that childhood physical abuse is associated with difficulties in intimate adult relationships (e.g., Malinosky-Rummell & Hansen, 1993). Furthermore, longer duration of child abuse has been associated with more severe outcomes in adulthood (Browne & Finklehor, 1986; Conte & Schuerman, 1987), in particular in the area of interpersonal relationships (Elliott, 1994). These results suggest that specific characteristics of physical abuse influence the development of internal working models of others as harmful and rejecting. These internal working models lead to an avoidance of close relationships with others as a means of protecting the self from further harm and rejection.

#### 4.4.7 Childhood Sexual Abuse

Greater frequency of male non-caregiver childhood sexual abuse (CSA) was significantly associated with greater attachment anxiety. This is partially consistent with previous studies, which have found that male and female adults who report sexual abuse have been found to be more likely to report high levels of both ambivalent and avoidant attachment behaviours (Mickelson et al, 1997; McCarthy & Taylor, 1999). Although this result is very tentative due to the small sample size of this subgroup, it is consistent with a previous study which found that greater frequency of CSA in women is associated with greater interpersonal

hypersensitivity (Elliott, 1994). Furthermore, studies have found that adults who report CSA are more likely to endorse attachment styles high in attachment anxiety (Mickelson et al, 1997; Stalker & Davis, 1998).

No significant associations were found between the predictability of CSA and attachment anxiety, which is inconsistent with previous studies of child attachment styles. A possible explanation is the limitations of the measure, in terms of giving an indication of how predictable the behaviour was on average. Some participants commented that the predictability of their caregivers behaviour varied over time.

Greater attachment avoidance was significantly associated with shorter duration and less predictability of CSA by male caregiver. These results are consistent with previous studies (Mickelson et al, 1997, McCarthy & Taylor, 1999). These associations between greater duration and predictability of CSA and low attachment avoidance also appear to be consistent with Finklehor's (1987) model of the effects of CSA, in terms of traumatic sexualisation and its consequences for subsequent relationships.

No significant associations were found between attachment avoidance and age when CSA first occurred. This is inconsistent with previous research (e.g., Conte & Schuerman, 1987). One possible explanation is the participants with high attachment avoidance may recall less incidences of abuse as a strategy of managing affect laden memories (Main, 1991), as mentioned previously, and this would limit the likelihood of finding a significant association.

#### 4.4.8 Summary

Overall, there was only one significant association between the number of types of a specific abuse and the attachment dimensions. The rest of the significant associations were between different characteristics of abuse and the attachment dimensions. These results suggest that it is specific characteristics of abuse, which contribute to the development and reinforcement of internal working models, manifesting as attachment anxiety and/or avoidance behaviours in close adult relationships.

The majority of the relationships were between attachment dimensions and negative experiences involving male caregivers. This is in contrast to PD, where the associations were all with negative behaviours by female caregiver. These results suggest that female and male caregiver behaviours may influence different aspects of internal working models and interpersonal relationships. One possible explanation for this pattern of results, is a combination of the degree of involvement and respective roles, which each caregiver models. For instance, the majority of the participants in the present study reported that the female caregiver did the majority of the day to day caring and discipline. Within this context, the female caregivers influence on the development of the child's beliefs about himself and others are likely to be more general and lasting. The male caregivers input into the participant's day to day care when they were a child was typically described as minimal. Within this context, the male caregiver's influence may have had a more specific influence on close relationships and relationships between men and women.

Specific combinations of abuse and abuse characteristics were related to different attachment dimensions. For instance, the age at which restraint began and its duration were associated with attachment anxiety only, while the predictability of restraint was associated with

attachment avoidance only. The frequency of physical abuse was only associated with attachment anxiety, while the duration of physical abuse was only associated with attachment avoidance.

These results suggest that specific combinations of abuse type, abuse characteristics and the genders of the perpetrator and victim, influences the development of attachment anxiety and avoidance. This is consistent with a previous study, which found differences between men and women, in terms of the severity of PD and childhood experiences (Modestin et al, 1998). Furthermore the high rates of multiple forms of abuse are likely to result in multiple contradictory models of attachment figures, e.g., attachment figures are caring and harmful (Bowlby, 1973; Lynch & Cicchetti, 1991). Multiple models of others are likely to be related to more severe outcomes, as they have been linked to poor metacognition (Main, 1991), which in turn reduces an individual's ability to monitor and alter their internal working models and subsequent behaviour. However, further research is required in this area.

Multiple regression was used to investigate the contribution of childhood experiences and attachment style to PD. This was based on the theoretical and empirical evidence that parental behaviour and abuse have been found to contribute to the development of attachment style, which in turn contributes to PD. The regression analysis found that only attachment anxiety accounted for a limited degree of the variance in the number of PD symptoms. Subsequent multiple regression analysis highlighted specific reported childhood experiences, which accounted for varying amounts of variance in the attachment anxiety and avoidance scores. A particularly strong finding concerned the age at which restraint started and the duration over which it occurred, which accounted for 60 percent of the variance of attachment anxiety, in that subgroup of participants. These results provide initial evidence of the key

experiences in a limited sample. Further research is required to expand these findings in larger samples, particularly as the high number of correlations increases the likelihood of type one errors and the interpretation of these findings need to be considered within this context.

#### **4.5 Hypothesis Five**

The fifth hypothesis stated that there would be specific associations between the types of offending and scores on one or both of the attachment dimensions. Overall, insecure attachment styles were over represented in this sample of offenders, which is consistent with previous studies (Ward et al, 1996; Smallbone & Dadds, 1998). The analysis found that participants who had committed sexual offences against children reported significantly higher rates of attachment anxiety than those participants who had committed violent non-sexual offences. This suggests that participants who had committed sexual offences against children have internal working models of others as rejecting and abandoning. No differences were found between participants who had committed violent non-sexual offences and those who had committed violent offences against adults, or between participants who had committed sexual offences against adults and those who had committed sexual offences against children.

These results are consistent with Ward et al (1996) which found that child sex offenders were more likely to report preoccupied or fearful attachment styles, indicating high levels of attachment anxiety. Ward et al (1996) also reported that rapists and violent non-sexual offenders were more likely to report a dismissing attachment styles. In the present study, although there were only three participants who reported a dismissing attachment style, they were all classified as having a violent non-sexual offence history.

The limited differences between offence type and attachment style may be a result of the division of participants into broad offence types, combined with participants who have committed offences in more than one group. The division of participants according to the offence type outlined above, was necessarily simplistic due to the limited focus of the study.

The division of participants on a more detailed offence basis may facilitate a better understanding of the adult attachment differences. For instance, using variables such as degree of physical harm to the victim, relationship to the victim and single types of offence histories compared with mixed offence histories.

The results of the present study provide evidence, consistent with previous research (Hudson & Ward, 1997; Smallbone and Dadds, 1998), of the links between attachment and sexual offending. This offers researchers a theoretical base from which these behaviours may be investigated, and which would provide a detailed description of the processes by which offending progresses (Hudson & Ward, 1997; Smallbone & Dadds, 1998). Hudson and Ward (1997, p. 336) stated that attachment style and its underlying cognitive representations '*constitutes a crucial piece of the etiological puzzle*' with particular reference to the social dysfunction associated with sexual offending.

Furthermore, studies which have investigated links between childhood experiences and later offending, have found associations between poor and/or harsh parental discipline and abuse and later offending (Haapasalo & Pokela, 1999). Although this has not been directly assessed in the present study, the reported rates of emotional abuse and physical abuse in particular, are consistent with this.

## **4.6 Limitations of the Study**

### **4.6.1 Personality Measure**

There was high consistency between the PDQ-4+ and the IPDE-SQ total scores indicating good reliability for the PDQ-4+. However, five participants rated themselves as having no PDs, where as all participants had been diagnosed with PD by Consultant Forensic Psychiatrists. This questions the validity of self-report (and interviewer) methods of assessing PD. The reliability of diagnosing specific PD ranged from good to very poor, suggesting that the results of analysis using specific PD should be interpreted within the context of this limitation.

Previous studies have found that the PDQ-R, an earlier version of the PDQ-4+, may not demonstrate adequate levels of discriminant validity among the specific PDs, similar to the diagnostic system on which it is based. Therefore, the analysis of associations with specific PDs may have limited validity. The PDQ-R has been found to be highly sensitive, producing few false negatives and many false positives in clinical as well as community samples (e.g., Hyler et al, 1992; Johnson & Bornstein, 1992). However, in this population, the few false negatives appear to be the limiting factor of this measure.

The PDQ-4+ includes a structured interview to confirm the presence of any specific PDs identified through the questionnaire. The data in the present study suggested the possibility of false negatives, however, this would not be detected by the structured interview section of the PDQ-4+, as it does not include a confirmation process for those PDs which have been identified as absent. This highlights possible changes in specificity and sensitivity of the PDQ-4+ according to different populations, suggesting a degree of flexibility is needed in the

criteria for detection of a PD or focusing on symptomology rather than specific PDs. The present study focused primarily on the number of symptoms, as opposed to specific PDs, as a means of overcoming some of these issues.

#### 4.6.2 Attachment Measure

The participant-rated ECRI showed significant reliability in terms of inter-test agreement with the RQ. There was no significant agreement between the participant-rated and staff-rated attachment styles on the ECRI, which is consistent with Sack et al (1996). However, there were significant positive correlations between participant-rated and staff-rated attachment dimension scores.

There was moderate agreement between the participant-rated ECRI and RQ adult attachment measures. This is contrary to the results found by Brennan et al (1998) in the development of the ECRI, who found a high degree of similarity between the two measures. It was noted during the data collection that some of the participants responded strongly to specific descriptions of the different adult attachment styles used in the RQ. This was always to an insecure attachment style. This may indicate that for some individuals, the RQ descriptions may provide a more accessible means of identifying their adult attachment style. However, this may vary according to the current circumstances of the individual. For instance, the participants in this study were all patients on a Personality Disorder Service, which used psychological methods to facilitate the participants to discuss their interpersonal relationships, amongst other areas. This may, for certain participants, have facilitated a greater awareness of their attachment style.

One of the limitations of self-report measures of adult attachment style is that it has been found that troubled adults have a tendency to reflect incoherently on their early attachment experiences, overestimating the degree of secure attachment (Main, 1991). Furthermore, research has found that high levels of defensiveness and distortion were particularly common amongst sex offenders, which represents the majority of this sample (e.g., Murphy, 1990). This suggests that the self-report methods of assessing both the adult attachment style and the parental attachment behaviour may have resulted in an under-reporting of insecure attachments.

The reliability of measuring adult attachment style may be increased through using a combination of participant-rated and staff-rated attachment measures. This could be combined with the researcher's experience of interviewing the participant, particularly if this has involved discussion of relationship history. However, the results indicate greater consistency between staff-rated ECRI attachment styles and AAI generated attachment styles (Van IJzendoorn, 1997). Another possibility is to incorporate this discussion into completing the ECRI. This method may be more practical when attachment style is being considered for clinical purposes, although in the present study, it would have been possible, as the data collection had involved relatively extensive interviews. Alternatively a narrative method of assessing attachment style, such as the Adult Attachment Interview, may be more appropriate in PD populations. Comparisons between nursing staff and therapist's ratings of patients attachment styles could help in understanding different interpretations of patients externalised behaviour. Overall these results indicate that reliability of self report measures of adult attachment style may be limited and the results should be considered in the light of this limitation.

#### 4.6.3 Retrospective Method

A limitation of this study is the sole reliance on retrospective recall to investigate parenting and abuse. Information on these areas from other sources would increase the validity of the results by reducing under and over reporting, as well as potential response biases. However, studies have found that the salient factual details of adult's recollections of the childhood were generally accurate, especially those experiences which were unique, unexpected and consequential (Brewin et al, 1993; Robins, Schoenber & Holmes, 1985). Furthermore, studies have found impressive correspondence between self-reports regarding childhood experiences and independent assessment taken at the time of the situation (McCrae & Costa, 1988).

This suggests that the majority of the results found in the present study are unlikely to have been influenced by incorrect recollections of abuse experiences. It is more likely that abuse experiences are under-reported. However, as mentioned previously, recollections of parental attachment behaviours and the extent to which participants felt loved and cared for by the caregivers, may be more at risk of reflecting current constructions of past events, therefore possibly limiting construct validity.

#### 4.6.4 Other Limitations

This study had a small sample size, which limited the statistical analysis and in one area, the results have to be interpreted with a great deal of caution. In particular the small sample size prevented more powerful statistical analysis of the relationships between multiple forms of abuse, attachment dimensions and PD symptoms (e.g., path analysis). Furthermore, a larger sample size may have revealed differences of smaller effect sizes. Within the sample, only a small number of participants were classified as having a dismissing attachment style, this

reduced the potential of finding any differences between attachment categories. However, this may be particular to this population or service. Further research in other forensic populations (e.g., prisons) and other high security hospitals, would increase the understanding in this area.

The participant in the present study are highly selected, which limits the extent to which these results can be generalised. The results are consistent with previous studies of inpatients with more severe PD symptomology (Modestin et al, 1998; Zanarini et al, 1997). Future research in out-patient PD and other forensic populations are needed to establish the extent to which these results are consistent with a dimensional conceptualisation of both PD and adult attachment styles. The limited research into PD and attachment styles in American college populations, provides tentative evidence to support this. Further research may highlight in what direction different populations differ, e.g., more severe borderline PD combined with more severe child and adult abuse and abusing may be associated with more attachment avoidance.

The measure of childhood experiences was limited in its measure of parenting. In particular the measure of neglect was limited to parental physical availability and there were no measures of parental discipline. Furthermore, simple measures of parental psychological availability and parental attachment measures were used, potentially contributing to the limited relationships found in this study. A more comprehensive assessment of these areas may have resulted in the detection of further associations. The expansion of the parental attachment measure to include the fourth fearful category or the disorganised category from the AAI, could improve the measure. Also translating the measure into a questionnaire, which focused on specific behaviours, may reduce the potential for memory biases (Brewin et al, 1993).

A potential confounding variable, which was not examined in the present study, is that of adult abusive experiences. These are likely to have a significant impact on internal working models and attachment style, and possibly be a dynamic of previous abuse. Further studies may benefit from investigating child and adult abuse experiences, to examine the potential effects of these experiences.

#### **4.7 *Strengths of the Study***

The detailed investigation of childhood experiences, in particular the different types of abuse and abuse characteristics, such as frequency and predictability, is a strength of this study.

This has highlighted areas for further research with respect to both PD and attachment theory.

This level of analysis has provided further support for the significance of childhood abuse to the development of PD and of attachment as a mediating variable (Alexander, 1992, 1993).

The use of dimensional measures of both PD and attachment dimensions, rather than categorical measures, resulted in the identification of significant differences that were not found using a categorical approach. Furthermore, very few studies have reported using multiple self-report measures to assess reliability within their sample, relying instead on previous reports of the measure's reliability. The focus on a mixed PD sample, although limiting some of the analysis, is more ecologically valid and may have resulted in findings, which are more applicable to other clinical PD populations.

Furthermore, participants completed all the self-report questionnaires in the presence of the researcher, who was able to answer any queries and discuss any of issues. This is likely to have increased the reliability of the data collection process.

## **4.8 Clinical Implications**

The results of this study indicate that attachment theory can provide a meaningful perspective on the interpersonal difficulties associated with PD. Furthermore, the results suggest how childhood experiences may contribute to the development of interpersonal difficulties and PD. In particular these results highlight the high rates of abuse and the links between adult attachment style and PD in this population, which have implications for treatment and service provision.

In individual work with clients with PD, attachment theory suggests interventions, which include the development of a 'secure base' (Dozier, Cue & Barnett, 1994) and the five therapeutic tasks outlined by Bowlby (1988, pp. 138-139). These therapeutic methods used within the context of a 'secure base' may provide the individual with the opportunity to incorporate these interpersonal experiences into their internal working models. This may lead to changes in the expectations of self, others and relationships, thereby altering their adult attachment style (Clegg, & Lansdall-Welfare, 1995; Egeland et al, 1988). The focus on these areas would appear central to the concept of PD as outlined in the introduction.

Attachment theory also suggests key experiences, which are likely to have promoted the development of insecure attachment style, such as early separation and loss (Bowlby, 1973; 1980), which were found in the present study. Separation and loss are experiences which are common to all patients in the PD service. As well as childhood experiences, they are detained and are separated from their family and friends. Furthermore, the majority of the patients have experienced at least one ward change, as well as changes in named nurse, consultant psychiatrist and psychologists. Persaud and Meux (1994) reported how the mental states of in-patients deteriorated following the temporary loss of a ward's Consultant Psychiatrist.

How these separations and other losses are acknowledged and dealt with, may hold the potential to either reinforce existing internal working models or provide experiences which challenge them (Adshead, 1998).

The attachment styles of staff are highly likely to influence the therapeutic service the patients receive. Child attachment studies have found strong associations between caregiver behaviour, in terms of appropriate responsiveness and an ability to accurately evaluate their child's attachment needs (Fonagy et al, 1991). Dozier et al (1994) found that securely attached case managers provided more appropriate therapeutic interventions, with respect to the attachment behaviours stated above, to individuals with serious psychopathology. Dozier et al (1994) found that insecurely attached case managers, responded to clients' attachment needs in a manner which confirms the client's insecure internal working models, while securely attached case managers responded to attachment needs in ways which provided challenges to their clients insecure attachment needs. In particular, Dozier et al, (1994) found that case managers who had a preoccupied style tended to intervene intensively with all their clients and case managers who had a dismissing style tended to intervene non-intensively, regardless of client characteristics and needs. However, the results of the Dozier et al (1994) study are tentative, and further research on therapists attachment style would be clinically significant. Overall, this indicates the important influence of staff attachment styles on the care they provide (Adshead, 1998).

Ward staff on the PD service, have to contain a great deal of challenging behaviour. The effectiveness of this containment often appears to depend on which staff are on duty. This may be a reflection of the attachment styles of ward personnel. The interpretation and response to patient's behaviour, is likely to be influenced by staff's ability to freely evaluate

such behaviour. Dozier et al's (1994) study found that more secure case managers responded to the underlying neediness of clients with a dismissing attachment style, as well as to those clients who displayed a preoccupied attachment style.

Both individual therapy and day-to-day interactions with named nurses provide potentially powerful experiences, which can facilitate the re-working of internal working models. These experiences have been found to facilitate breaking the cycle of abuse (Egeland et al, 1988). These issues have implications for the management of named nurse-patient relationships. It is not uncommon for some patients to develop very intense relationships with their named nurse, i.e., repeating insecure patterns of attachment behaviour, which is often dealt with by changing the named nurse. However, this response can reinforce insecure internal working models. Attempts to work through these difficulties can provide a powerful opportunity to start to revise patient's insecure internal working models (Clegg & Lansdall-Welfare, 1995).

Furthermore, other extreme behaviours associated with PD, such as self harm, assaults on staff or treatment sabotage, often lead to rejection of the patient by staff and the termination of care. These behaviours may be understood as insecure attachment behaviour where the patient is re-enacting earlier traumatic rejection and abuse (Van der Kolk, 1989), which is consistent with their expectations of others based on their internal working models. The high prevalence rates of abuse have implications for the service, in terms of what effect, if any, does housing together, between 16 and 23 patients, who have had multiple experiences of child abuse, have on the ward atmosphere? The PD service aims to operate as a therapeutic community. What impact does the child abuse histories of the majority of participants have on this process, particularly when combined with difference attachment styles?

While DSM-IV criteria for PD, which is atheoretical, can be used in a circular fashion to explain a patient's behaviour, an attachment perspective indicates potential underlying reasons for the different responses. For instance, patients with dismissing attachment styles may find it difficult to engage in treatment (Adshead, 1998), potentially never having 'engaged' in a meaningful way with another person, i.e. never developed a secure base. Where this is combined with discussing offending, the patient's limited ability to engage may be interpreted as avoiding offence-related assessment, indicating a lack of motivation to change. In contrast this may, in part, reflect a fear of attachments, a manifestation of insecure internal working models. This has potential service implications, in terms of how quickly a patient is expected to engage in treatment and how much effort the patient and staff are expected to make in developing an engagement. Patients with a preoccupied adult attachment style, are likely to engage quickly and yet may get stuck, or act ambivalently towards the treatment as it progresses (Adshead, 1998).

The results of the present study suggests the majority of the participants are likely to engage relatively quickly, as there were few participants who were classified as dismissing by either self-report or staff-report. This is also reflected in terms of PD, with the majority of participants scoring highly on cluster B and cluster C PDs. The criteria for selection for treatment by PD service includes the patient engaging in the assessment process and being motivated to change. The assessment process usually takes place over six months, although this can vary. These criteria are likely to favour patients with a preoccupied and possibly a fearful attachment style. However, in the long term they may not be any more appropriately engaged than participants with a dismissing attachment style. The use of attachment theory in conjunction with other perspectives, to understand the engagement process, may facilitate assessment and treatment of patients with both dismissing and preoccupied attachment styles.

Finally, the institution itself can become an attachment figure. A number of participants in the present study had spent more time detained in secure facilities than 'outside'. However, institutions can be an 'insecure attachment figure', promoting insecure attachment relationships. Institutions can be frightening in terms of architecture, atmosphere, and other patients. This can stimulate insecure attachment behaviour such as attention seeking, rather than reducing it through containing anxiety and reducing arousal, which are often the underlying needs of attention seeking (Adshead, 1998).

The process of data collection in the present study raised the awareness of the extent of abuse, attachment styles and their links with external behaviour. Furthermore, it prompted the psychology service to examine what opportunities are available for patients to address their abuse histories. During the data collection, several patients commented that they were pleased that they were now being asked about child abuse and stated that they wanted to address their abuse within a therapeutic relationship.

Overall these results demonstrate the usefulness of attachment theory to the conceptualisation and treatment of PD. Furthermore, these results support the theoretical perspective of developing the understanding of 'abnormal' personality development from a theory based on 'normal' development. This contributes to less pathologizing of personality difficulties, which have been seen as deviant and untreatable.

## **4.9 Future Research**

Further research studies with larger sample sizes would facilitate the possibility of finding differences or associations of smaller effect sizes, as well as providing the opportunity for the use of more sophisticated statistical analysis, such as path analysis. A large sample size would also provide the opportunity to examine the relationships between individual PD symptoms, attachment dimensions and styles and childhood experiences of parenting and abuse. Further research exploring the associations between attachment dimensions and emotional regulation, within a PD population, could increase the understanding of the underlying nature of these common difficulties.

The use of structured interviews for PD, particularly if they are based on a dimensional assessment, is likely to increase the validity of the assessment compared to that achieved by self-report with this population (e.g., Fosatti et al, 1998). Similarly for the measurement of attachment style, a combination of self-report, interview and assessment by other professionals, possibly using a narrative method, may increase the validity of the assessment. One particular area which was not assessed in this study, was the experience of participants after they had been physically and/or sexually abused, in terms of any attempts to disclose and reactions to this, and subsequent effects on their relationships with their caregivers and other adults. This area has been highlighted in the child abuse literature as an important factor in the long-term impact of abuse (Briere, 1996). Related to this is the quality of current relationships with family members. The assessment of current behaviour, attitudes and beliefs in respect to their relationships with their family may highlight influences on internal working models, PD symptoms and ongoing treatment. As mentioned previously, studies of abuse experiences in adulthood, as well as childhood, are likely to contribute to the understanding of the development and stability of attachment styles.

These results highlight the necessity of careful assessment of experiences, and in particular, the meaning to the individual. This indicates that a qualitative approach, focusing on the meaning and interpretation of parenting and abuse experiences, may increase the understanding of the content of the internal working models and multiple models of individuals with PD, and their subsequent influence on interpersonal difficulties.

## **5 Conclusions**

Overall, this study has highlighted tentative links between specific aspects of childhood experiences and attachment behaviours and between attachment behaviours and severity of personality disorder. These links appear to be theoretically meaningful and provide support for further studies in the area. The results provide evidence for the applicability of attachment theory to offending behaviours, in particular violent and sexual offending. These results highlight the prominence of attachment issues within this client group, which has implications for both treatment and service provision.

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## ***Appendix One: DSM-IV (APA, 1994) Criteria for Specific Personality Disorders***

### **Cluster A Personality Disorders**

#### **Paranoid Personality Disorder**

- A. A pervasive distrust and suspiciousness of others such that their motives are interpreted as malevolent, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:
- (1) suspects, without sufficient basis, that others are exploiting, harming or deceiving him or her;
  - (2) is preoccupied with unjustified doubts about the loyalty or trustworthiness of friends or associates;
  - (3) is reluctant to confide in others because of unwarranted fear that the information will be used maliciously against him or her;
  - (4) reads hidden demeaning or threatening meanings into benign remarks or events;
  - (5) persistently bears grudges, i.e., is unforgiving of insults, injuries or slights;
  - (6) perceives attacks on his or her character or reputation that are not apparent to others and is quick to react angrily or to counterattack;
  - (7) has recurrent suspicions, without justification, regarding fidelity of spouse or sexual partner.
- B. Does not occur exclusively during the course of schizophrenia, a mood disorder with psychotic features, or another psychotic disorder and is not due to the direct physiological effects of a general medical condition.

#### **Schizoid Personality Disorder**

- A. A pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:
- (1) neither desires nor enjoys close relationships, including being part of a family;
  - (2) almost always chooses solitary activities;
  - (3) has little, if any, interest in having sexual experiences with another person;
  - (4) takes pleasure in few, if any, activities;
  - (5) lacks close friends or confidants other than first-degree relatives;
  - (6) appears indifferent to the praise or criticism of others;
  - (7) shows emotional coldness, detachment or flattened affectivity.
- B. Does not occur exclusively during the course of schizophrenia, a mood disorder with psychotic features, another psychotic disorder or a pervasive developmental disorder and is not due to the direct physiological effects of a general medical condition.

## Schizotypal Personality Disorder

- A. A pervasive pattern of social and interpersonal deficits marked by acute discomfort with, and reduced capacity for close relationships as well as by cognitive or perceptual distortions and eccentricities of behaviour, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:
- (1) ideas of reference (excluding delusions of reference);
  - (2) odd beliefs or magical thinking that influences behaviour and is inconsistent with subculture norms (e.g., superstitiousness, belief in clairvoyance, telepathy or 'sixth sense'; in children and adolescents, bizarre fantasies or preoccupations);
  - (3) unusual perceptual experiences, including bodily illusions;
  - (4) odd thinking and speech (e.g., vague, circumstantial, metaphorical, overelaborate or stereotyped);
  - (5) suspiciousness or paranoid ideation;
  - (6) inappropriate or constricted affect;
  - (7) behaviours or appearance that is odd, eccentric or peculiar;
  - (8) lack of close friends or confidants other than first degree relatives;
  - (9) excessive social anxiety that does not diminish with familiarity and tends to be associated with paranoid fears rather than negative judgements about self.
- B. Does not occur exclusively during the course of schizophrenia, a mood disorder with psychotic features, another psychotic disorder or a pervasive developmental disorder.

## Cluster B Personality Disorders

### Antisocial Personality Disorder

- A. There is a pervasive pattern of disregard for and violation of the rights of others occurring since the age 15 years, as indicated by three (or more) of the following:
- (1) failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
  - (2) deceitfulness, as indicated by repeated lying, use of aliases or conning others for personal profit or pleasure;
  - (3) impulsivity or failure to plan ahead;
  - (4) irritability and aggressiveness, as indicated by repeated physical fights or assaults;
  - (5) reckless disregard for safety of self or others;
  - (6) consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
  - (7) lack of remorse, as indicated by being indifferent to or rationalising having hurt, mistreated or stolen from others.
- B. The individual is at least 18 years.
- C. There is evidence of conduct disorder with onset before the age of 15 years.
- D. The occurrence of antisocial behaviour is not exclusively during the course of schizophrenia or a manic episode.

## **Borderline Personality Disorder**

A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- (1) frantic efforts to avoid real or imagined abandonment. Note: Do not include suicidal or self-mutilating behaviour covered in criterion 5;
- (2) a pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of idealisation and devaluation;
- (3) identity disturbance: markedly and persistently unstable self-image or sense of self;
- (4) impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). Note: Do not include suicidal or self-mutilating behaviour covered in criterion 5;
- (5) recurrent suicidal behaviour, gestures or threats or self-mutilating behaviour;
- (6) affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability or anxiety usually lasting a few hours and only rarely more than a few days);
- (7) chronic feelings of emptiness;
- (8) inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights);
- (9) transient, stress-related paranoid ideation or severe dissociative symptoms.

## **Histrionic Personality Disorder**

A pervasive pattern of excessive emotionality and attention seeking, beginning in early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- (1) is uncomfortable in situations in which he or she is not the centre of attention;
- (2) interaction with others is often characterised by inappropriate sexually seductive or provocative behaviours;
- (3) displays rapid shifting and shallow expression of emotions;
- (4) consistently uses physical appearance to draw attention to self;
- (5) has a style of speech that is excessively impressionistic and lacking in detail;
- (6) shows self-dramatisation, theatricality and exaggerated expression of emotion;
- (7) is suggestible, i.e., easily influenced by others or circumstances;
- (8) considers relationships to be more intimate than they actually are.

## **Narcissistic Personality Disorder**

A pervasive pattern of grandiosity (in fantasy or behaviour), need for admiration and lack of empathy, beginning in early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- (1) has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognised as superior without commensurate achievements);

- (2) is preoccupied with fantasies of unlimited success, power brilliance, beauty or ideal love;
- (3) believes that he or she is “special” and unique and can only be understood by, or should associate with, other special or high-status people (or institutions);
- (4) requires excessive admiration;
- (5) has a sense of entitlement, i.e., unreasonable expectations of especially favourable treatment or automatic compliance with his or her expectations;
- (6) is interpersonally exploitative, i.e., takes advantage of others to achieve his or her own ends;
- (7) lacks empathy; is unwilling to recognise or identify with the feelings and needs of others;
- (8) is often envious of others or believes that others are envious of him or her;
- (9) shows arrogant, haughty behaviours or attitudes.

## Cluster C Personality Disorders

### Avoidant Personality Disorder

A pervasive pattern of social inhibition, feelings of inadequacy and hypersensitivity to negative evaluation, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

- (1) avoids occupational activities that involve significant interpersonal contact because of fears of criticism, disapproval or rejection;
- (2) is unwilling to get involved with people unless certain of being liked;
- (3) shows restraint within intimate relationships because of the fear of being shamed or ridiculed;
- (4) is preoccupied with being criticised or rejected in social situations;
- (5) is inhibited in new interpersonal situations because of feelings of inadequacy;
- (6) views self as socially inept, personally unappealing or inferior to others;
- (7) is usually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing.

### Dependent Personality Disorder

A pervasive pattern and excessive need to be taken care of that leads to submissive and clinging behaviour and fears of separation, beginning in early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- (1) as difficulty making everyday decisions without an excessive amount of advice and reassurance from others;
- (2) needs others to assume responsibility for most major areas of his or her life;
- (3) has difficulty expressing disagreement with others because of fear of loss of support or approval. Note: Do not include realistic fears of retribution.
- (4) has difficulty initiating projects or doing things on his or her own (because of lack of self-confidence in judgement or abilities rather than a lack of motivation or energy);
- (5) goes to excessive lengths to obtain nurturance and support from others to the point of volunteering to do things that are unpleasant;

- (6) feels uncomfortable or helpless when alone because of exaggerated fears of being unable to care for himself or herself;
- (7) urgently seeks another relationship as a source of care and support when a close relationship ends;
- (8) is unrealistically preoccupied with fears of being left to take care of himself or herself.

### **Obsessive-Compulsive Personality Disorder**

A pervasive pattern of preoccupation with orderliness, perfectionism and mental and interpersonal control, at the expense of flexibility, openness and efficiency, beginning in early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

- (1) is preoccupied with details, rules, lists, order, organisation or schedules to the extent that the major point of the activity is lost;
- (2) shows perfectionism that interferes with task completion (e.g., is unable to complete a project because of his or her own overly strict standards are not met);
- (3) is excessively devoted to work and productivity to the exclusion of leisure activities and friendships (not accounted for by obvious economic necessity);
- (4) is overconscientious, scrupulous and inflexible about matters of morality, ethics or values (not accounted for by cultural or religious identification);
- (5) is unable to discard worn-out or worthless objects even when they have no sentimental value;
- (6) is reluctant to delegate tasks or to work with others unless they submit to exactly his or her way of doing things;
- (7) adopts a miserly spending style towards both self and others; money is viewed as something to be hoarded for future catastrophes;
- (8) shows rigidity and stubbornness.

### **Personality Disorder Not Otherwise Specified**

This category is for disorders of personality functioning that do not meet criteria for any specific personality disorder. An example is the presence of features of more than one specific personality disorder that do not meet the full criteria for any one personality disorder ("mixed personality disorder"), but together cause clinically significant distress or impairment in one of more important areas of functioning (e.g., social or occupational). This category can also be used when the clinician judges that a specific personality disorder that is not included in the classification is appropriate. Examples include depressive personality disorder and passive-aggressive personality disorder.

## Depressive Personality Disorder

- A. A pervasive pattern of depressive cognitions and behaviours beginning in by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:
- (1) usual mood is dominated by dejection, gloominess, cheerlessness, joylessness, unhappiness;
  - (2) self-concept centres around beliefs of inadequacy, worthlessness and low self-esteem;
  - (3) is critical, blaming and derogatory towards self;
  - (4) is brooding and given to worry;
  - (5) is negativistic, critical and judgmental towards others;
  - (6) is pessimistic;
  - (7) is prone to feeling guilty or remorseful.
- B. Does not occur exclusively during major depressive episodes and is not better accounted for by dysthymic disorder.

## Passive-Aggressive Personality Disorder

- A. A pervasive pattern of negativistic attitudes and passive resistance to demands for adequate performance, beginning in early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:
- (1) passively resists fulfilling routine social and occupational tasks;
  - (2) complains of being misunderstood and unappreciated by others;
  - (3) is sullen and argumentative;
  - (4) unreasonably criticises and scorns authority;
  - (5) expresses envy and resentment toward those apparently more fortunate;
  - (6) voices exaggerated and persistent complaints of personal misfortune;
  - (7) alternates between hostile defiance and contrition.
- B. Does not occur exclusively during major depressive episodes and is not better accounted for by dysthymic disorder.

(APA, 1994, pp. 733)

## ***Appendix Two: DSM-IV Criterion for the Diagnosis of Personality Disorder***

- Criterion 1     An enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture and is manifested in at least two of the following areas: cognition, affectivity, interpersonal functioning or impulse control;
- Criterion 2     these patterns should be enduring, inflexible and pervasive across a broad range of personal and social situations;
- Criterion 3     resulting in clinically significant distress or impairment in social, occupational or other important areas of functioning;
- Criterion 4     the pattern is stable and of long duration and its onset can be traced back at least to adolescence or early adulthood;
- Criterion 5     the pattern is not better accounted for as a manifestation or consequence of another mental disorder;
- Criterion 6     the pattern is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, exposure to a toxin) or a general medical condition (e.g., head trauma).

(APA, 1994: p.633)

## ***Appendix Three: Patterns of Infant Attachment***

### **Secure**

During the strange situation, the infant uses caregiver as a 'secure base', explores freely when the caregiver is available, may or may not be distressed at separation, but greets positively on reunion, seeks contact if distressed, settles down, returns to exploration. Displayed by 55 – 65 % of the normative population.

Secure infants are confident of the availability of their attachment figure and explore freely in his or her presence. They may or may not be overtly distressed by separations but will limit exploration in the caregiver's absence. Upon return they are positive in greeting, make contact if distressed and are quickly able to return to exploration.

### **Insecure-Avoidant**

During the strange situation, the infant appears minimally interested in caregiver, explores busily, minimal distress at separation, ignores or avoids caregiver on reunion. Displayed by 20 - 25% of the normative population.

Avoidant infants have learnt that the attachment figure is unlikely to be available for comfort in times of need. To avoid potential rejection, they avoid expressing their attachment needs. Thus they appear precociously independent; though seemingly preoccupied with exploration, they explore less freely than do secure children. They rarely show overt distress at separations and at reunions they ignore or avoid the caregiver for prolonged periods.

### **Insecure-Resistant**

During the strange situation, the infant shows minimal exploration, preoccupied with caregiver, has difficulty settling down, both seeks and resists contact on reunion, may be angry or very passive. Displayed by 15 - 20 % of the normative population.

Resistant infants have learned that the attachment figure is unpredictable; attention can be ensured only with a great deal of effort on their part and their exploration is limited by preoccupation with the caregiver. They are extremely distressed by separations and often refuse to be comforted upon reunions.

### **Insecure-Disorganised/Disoriented**

During the strange situation, the infant shows disorganised and/or disoriented behaviour in the caregiver's presence (e.g., approach with head averted, trancelike freezing, anomalous postures). Infants placed in this category are also 'forced' into the best fit of the preceding categories. Displayed in 15-20% of the normative population.

## ***Appendix Four: Hazen and Shaver's (1987) Three Adult Attachment Styles***

### **Secure**

A secure attachment style is characterised by comfort with intimacy and an ability to depend on their partners. Their most important love experiences are described as especially happy, friendly and trusting. They emphasised being able to accept and support their partner despite the partner's faults. Moreover their relationships tended to endure longer.

'I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I do not often worry about being abandoned or about someone getting too close to me.'

### **Avoidant**

An avoidant attachment style is characterised by fear of intimacy, emotional highs and lows, jealousy and excessive self-reliance.

'I am somewhat uncomfortable being close to others. I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often love partners want me to be more intimate than I feel comfortable being.'

### **Anxious/Ambivalent**

An anxious-ambivalent attachment style is characterised by obsession, desire for reciprocation and union, emotional highs and lows, extreme sexual attraction and jealousy, "preoccupied" with attachment issues and with partners and as desiring more closeness than their partners seem willing to allow.

'I find that others are reluctant to get as close as I would like. I often worry that my partner does not really love me or want to stay with me. I want to merge completely with another person and this desire sometimes scares people away.'

## ***Appendix Five: Main & Goldwyns' Adult Attachment Interview Styles***

### **Autonomous**

Coherent and collaborative in discussing attachments. Dialogue is fresh and thoughtful. May have had positive or negative childhood experiences but has perspective and understanding of own and other contributions to these experiences.

### **Preoccupied**

Confused and preoccupied with details of past experiences without objective perspective. May seem passive and vague or angry, conflicted or unconvincingly analytical. Transcripts often long and incoherent.

### **Dismissing**

Attachment concerns dismissed from active consideration. Some insistence on lack of memory for childhood experiences. May idealise but be unable to support with details. May provide details but be cut off from related feelings or dismiss their significance. Transcripts are often short.

### **Unresolved/disorganised**

Lapses in monitoring of reasoning or discourse when discussing events concerning attachment loss or trauma (e.g., disbelief in death, confused or incomplete sentences, change to inappropriate tense).

### **Cannot Classify**

Shifts between two contrasting strategies (dismissing and preoccupied) for the organisation of information relevant to attachment, which, theoretically, should be highly incompatible; or low coherence of discourse which prohibits placement in the Autonomous category, while no other scores are sufficiently elevated to designate placement in the dismissing or preoccupied categories.

## **Appendix Six: Bartholomew and Horowitz's (1991) Four Adult Attachment Styles**

### **Secure**

A secure attachment style is characterised by a relatively positive model self and others, indicating a sense of worthiness (lovability) plus an expectation that other people are generally accepting and responsive.

'It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I do not worry about being alone or having others not accept me.'

### **Preoccupied**

A preoccupied adult attachment style is characterised by a negative model of self and a positive model of others, indicating a sense of unworthiness (unlovability) combined with a positive evaluation of others. This combination of characteristics would lead a person to strive for self-acceptance by gaining the acceptance of valued others.

'I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I worry that others do not value me as much as I value them.'

### **Dismissive-avoidant**

A dismissing adult attachment style is characterised by a relatively positive model of self and a negative model of others, indicating a sense of love-worthiness combined with a negative disposition towards other people. Such people protect themselves against disappointment by avoiding close relationships and maintaining a sense of independence and invulnerability.

'I am comfortable without close emotional relationships. It is very important for me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.'

### **Fearful-Avoidant**

A fearful adult attachment style is characterised by a negative model of themselves and a negative model of others, indicating a sense of unworthiness (unlovability) combined with an expectation that others will be negatively disposed (untrustworthy and rejecting). By avoiding close involvement with others, this style enables people to protect themselves against anticipated rejection by others.

'I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.'

## Appendix Seven: Personality Diagnostic Questionnaire – 4+

NAME: \_\_\_\_\_

TODAY'S DATE: \_\_/\_\_/

### INSTRUCTIONS

The purpose of this questionnaire is for you to describe the kind of person you are. When responding to the statements think about how you have tended to feel, think and act **over the past several years**.

Please mark each item in the following way:

- |   |   |  |
|---|---|--|
| T | - | <b>True:</b> if the statement is generally true for you.   |
| F | - | <b>False:</b> if the statement is generally false for you. |

Even if you are not entirely sure about the answer, please circle one of these only for each item. Please be as honest as you can and respond to all the statements. This is not a test and there are no correct answers. You may take as long as you like.

### OVER THE PAST SEVERAL YEARS....

- |     |   |   |   |
|-----|---|---|---|
| 1.  | I avoid working with others who may criticize me.                                     | T | F |
| 2.  | I can't make decisions without the advice, or reassurance, of others.                 | T | F |
| 3.  | I often get lost in details and lose sight of the 'big picture'.                      | T | F |
| 4.  | I need to be the centre of attention.   | T | F |
| 5.  | I have accomplished far more than others give me credit for.                          | T | F |
| 6.  | I'll go to extremes to prevent those that I love from ever leaving me.                | T | F |
| 7.  | Others have complained that I do not keep up with my work or commitments.             | T | F |
| 8.  | I've been in trouble with the law several times (or would have been if I was caught). | T | F |
| 9.  | Spending time with family or friends just doesn't interest me.                        | T | F |
| 10. | I get special messages from things happening around me.                               | T | F |
| 11. | I know that people will take advantage of me, or try to cheat me, if I let them.      | T | F |
| 12. | Sometimes I get upset.  | T | F |
| 13. | I make friends with people only when I am sure they like me.                          | T | F |
| 14. | I am usually depressed.   | T | F |
| 15. | I prefer that other people assume responsibility for me.                              | T | F |
| 16. | I waste time trying to make things perfect.   | T | F |
| 17. | I am 'sexier' than most people.   | T | F |
| 18. | I often find myself thinking about how great a person I am.                           | T | F |
| 19. | I either love someone or hate them, nothing in between.                               | T | F |
| 20. | I get into a lot of physical fights.  | T | F |
| 21. | I feel that others don't understand or appreciate me.                                 | T | F |
| 22. | I would rather do things by myself than with other people.                            | T | F |
| 23. | I have the ability to know that some things will happen before they actually do.      | T | F |
| 24. | I often wonder whether the people I know can really be trusted.                       | T | F |
| 25. | Occasionally I talk about people behind their backs.                                  | T | F |
| 26. | I am inhibited in my intimate relationships because I am afraid of being ridiculed.   | T | F |
| 27. | I fear losing the support of others if I disagree with them.                          | T | F |
| 28. | I suffer from low self-esteem.  | T | F |
| 29. | I put my work ahead of being with my family and friends or having fun.                | T | F |
| 30. | I show my emotions easily   | T | F |
| 31. | Only certain special people can really appreciate and understand me.                  | T | F |
| 32. | I often wonder who I really am.   | T | F |
| 33. | I have difficulty paying bills because I don't stay at any one job for very long.     | T | F |
| 34. | Sex just doesn't interest me.   | T | F |
| 35. | Others consider me moody and 'hot-tempered'.  | T | F |
| 36. | I can often sense, or feel things, that others can't.                                 | T | F |

- T - **True:** if the statement is generally true for you.  
 F - **False:** if the statement is generally false for you.

# OVER THE PAST SEVERAL YEARS....

37.	Others will use what I tell them against me.	T	F
38.	There are some people I don't like.	T	F
39.	I am more sensitive to criticism than other people.	T	F
40.	I find it difficult to start something if I have to do it by myself.	T	F
41.	I have a higher sense of morality than other people.	T	F
42.	I am my own worst critic.	T	F
43.	I use my 'looks' to get attention that I need.	T	F
44.	I need to very much for other people to take notice of me or compliment me.	T	F
45.	I have tried to hurt or kill myself.	T	F
46.	I do a lot of things without considering the consequences.	T	F
47.	There are few activities that I have any interest in.	T	F
48.	People often have difficulty understanding what I say.	T	F
49.	I object to supervisors telling me how I should do my job.	T	F
50.	I keep alert to figure out the real meaning of what people are saying.	T	F
51.	I have never told a lie.	T	F
52.	I am afraid to meet new people because I feel inadequate.	T	F
53.	I want people to like me so much that I volunteer to do things I don't need that I'd rather not do.	T	F
54.	I have accumulated lots of things I don't need that I can't bear to throw out.	T	F
55.	Event though I talk a lot, people say that I have trouble getting to the point.	T	F
56.	I worry a lot.	T	F
57.	I expect other people to do favours for me even though I do not usually do favours for them.	T	F
58.	I am a very moody person.	T	F
59.	Lying comes easily to me and I often do it.	T	F
60.	I am not interested in having close friends.	T	F
61.	I am often on guard against being taken advantage of.	T	F
62.	I never forget, or forgive those who do me wrong.	T	F
63.	I resent those who have more 'luck' than me.	T	F
64.	A nuclear war may not be such a bad idea.	T	F
65.	When alone I feel helpless and unable to care for myself.	T	F
66.	If others can't do things correctly I would prefer to so them myself.	T	F
67.	I have a flair for the dramatic.	T	F
68.	Some people think that I take advantage of others.	T	F
69.	I feel that my life is dull and meaningless.	T	F
70.	I am critical of others.	T	F
71.	I don't care what others have to say about me.	T	F
72.	I have difficulties relating to others in a one-to-one situation.	T	F
73.	People have often complained that I did not realise that they were upset.	T	F
74.	By looking at me, people might think that I am pretty odd, eccentric or weird.	T	F
75.	I enjoy doing risky things.	T	F
76.	I have lied a lot on this questionnaire.	T	F
77.	I complain a lot about my hardships.	T	F
78.	I have difficulty controlling my anger or temper.	T	F
79.	Some people are jealous of me.	T	F
80.	I am easily influenced by others.	T	F
81.	I see myself as thrifty but others see me as cheap.	T	F
82.	When a close relationship ends, I need to get involved with someone else immediately.	T	F
83.	I suffer from low self-esteem.	T	F
84.	I am a pessimist.	T	F

- T - **True:** if the statement is generally true for you.  
 F - **False:** if the statement is generally false for you.

**OVER THE PAST SEVERAL YEARS....**

- |     |  |   |   |
|-----|--|---|---|
| 85. | I waste no time in getting back at people who insult me.   | T | F |
| 86. | Being around other people makes me nervous.  | T | F |
| 87. | In new situations I fear being embarrassed.  | T | F |
| 88. | I am terrified of being left to care for myself.   | T | F |
| 89. | People complain that I'm 'stubborn as a mule'.   | T | F |
| 90. | I take relationships more seriously than do those who I'm involved with.   | T | F |
| 91. | I can be nasty one minute then find myself apologising to them the next minute.  | T | F |
| 92. | Others consider me stuck up.   | T | F |
| 93. | When stressed, things happen. Like I get paranoid or just 'black out'.   | T | F |
| 94. | I don't care if others get hurt so long as I get what I want.  | T | F |
| 95. | I keep my distance from others.  | T | F |
| 96. | I often wonder whether my partner has been unfaithful to me.   | T | F |
| 97. | I often feel guilty.   | T | F |
| 98. | I have done things on impulse (such as those below) that can get me into trouble:<br>(circle all that apply to you)                            |   |   |
|     | a. Spending more money than I have   | T | F |
|     | b. Having sex with people I hardly know  | T | F |
|     | c. Drinking too much   | T | F |
|     | d. Taking drugs  | T | F |
|     | e. Eating binges   | T | F |
|     | f. Reckless driving  | T | F |
| 99. | When I was a kid (before the age of 16) I was somewhat of a juvenile delinquent, doing some of the things below (circle all that apply to you) |   |   |
|     | a. I was considered a bully  | T | F |
|     | b. I used to start fights with other kids  | T | F |
|     | c. I used a weapon in fights I had   | T | F |
|     | d. I robbed or mugged other people   | T | F |
|     | e. I was physically cruel to other people  | T | F |
|     | f. I was physically cruel to animals   | T | F |
|     | g. I forced someone to have sex with me  | T | F |
|     | h. I lied a lot  | T | F |
|     | i. I stayed out all night without my parents permission  | T | F |
|     | j. I stole things from others  | T | F |
|     | k. I set fires   | T | F |
|     | l. I broke windows or stole property   | T | F |
|     | m. I ran away from home overnight more than once   | T | F |
|     | n. I began skipping school a lot before the age 13   | T | F |
|     | o. I broke into someone's house, building or car   | T | F |

## Appendix Eight: International Personality Disorder – Screening Questionnaire

\_\_\_\_\_  
Last Name

\_\_\_\_\_  
First Name

\_\_\_\_\_  
Middle I.

\_\_\_\_\_  
Date

<p>IPDE SCREENING QUESTIONNAIRE DSM-IV MODULE</p>
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### DIRECTIONS

1. The purpose of this questionnaire is to learn what type of person you have been during the **past five years**.
2. Please do not skip any items. If you are not sure of an answer, select the one - True or False – which is **more likely** to be correct. There is no time limit, but do not spend too much time thinking about the answer to any single statement.
3. When the answer is TRUE, circle the latter T. When the answer is FALSE, circle the letter F.

- |   |   |   |
|---|---|---|
| 1. I usually get fun and enjoyment out of life.                           | T | F |
| 2. I trust people I don't know.   | T | F |
| 3. I'm not fussy about the little details.                                | T | F |
| 4. I can't decide what kind of person I want to be.                       | T | F |
| 5. I show my feelings for everyone to see.                                | T | F |
| 6. I let others make my big decisions for me.                             | T | F |
| 7. I get upset when I hear bad news about someone I know.                 | T | F |
| 8. Giving in to some of my urges gets me into trouble.                    | T | F |
| 9. Many people I know envy me.  | T | F |
| 10. I give my general impression of things and don't bother with details. | T | F |
| 11. I've never been arrested.   | T | F |
| 12. People think I'm cold and detached.                                   | T | F |
| 13. I get into very intense relationships that don't last.                | T | F |
| 14. Most people are fair and honest with me.                              | T | F |
| 15. People have a high opinion of me.                                     | T | F |
| 16. I feel awkward or out of place in social situations.                  | T | F |
| 17. I'm easily influenced by what goes on around me.                      | T | F |
| 18. I usually feel bad when I hurt or upset someone.                      | T | F |
| 19. I find it very difficult to throw out things.                         | T | F |
| 20. At times I've refused to hold a job even when I was expected to.      | T | F |
| 21. When I'm praised or criticised I let others know how I feel.          | T | F |
| 22. I use people to get what I want.                                      | T | F |
| 23. I spend too much time trying to do things perfectly.                  | T | F |
| 24. People often make fun of me behind my back.                           | T | F |
| 25. I've never threatened suicide or injured myself on purpose.           | T | F |

26.	My feelings are like the weather, they're always changing.	T	F
27.	To avoid being criticised I prefer to work alone.	T	F
28.	I like to dress so I stand out in a crowd.	T	F
29.	I will lie or con someone if it serves my purpose.	T	F
30.	I am more superstitious than most people.	T	F
31.	I have little or no desire to have sex with anyone.	T	F
32.	People think I have strict about rules and regulations.	T	F
33.	I usually feel uncomfortable or helpless when I am alone.	T	F
34.	I won't get involved with people until I'm certain they like me.	T	F
35.	I would rather not be the centre of attention.	T	F
36.	I think my spouse (or lover) may be unfaithful to me.	T	F
37.	People think I have too high an opinion of myself.	T	F
38.	I am careful about what I tell other people about myself.	T	F
39.	I worry a lot that people may not like me.	T	F
40.	I often feel "empty" inside.	T	F
41.	I work so hard I don't have time left for anything else.	T	F
42.	I worry about being left on my own and having to care for myself.	T	F
43.	I have tantrums or angry outbursts.	T	F
44.	I have a reputation for being a flirt.	T	F
45.	I feel very close to people I've just met.	T	F
46.	I prefer activities that I can do by myself.	T	F
47.	I lose my temper and get into physical fights.	T	F
48.	Some people think I'm tight or stingy with my money.	T	F
49.	I often seek advice or reassurance about everyday decisions.	T	F
50.	To get people to like me I help them with unpleasant jobs.	T	F
51.	I'm afraid of making a fool of myself with people I'm close to.	T	F
52.	I often mistake objects or shadows for people.	T	F
53.	I'm very moody.	T	F
54.	It's hard for me to get used to a new way of doing things.	T	F
55.	I daydream about being famous.	T	F
56.	I take chances and do reckless things.	T	F
57.	Everyone needs a friend or two to be happy.	T	F
58.	I discover hidden threats in what some people tell me.	T	F
59.	I usually try to get people to do things my way.	T	F
60.	When I'm under stress things around me don't seem real.	T	F
61.	I get annoyed when people won't do what I ask.	T	F
62.	When a close relationship ends, I can hardly wait to start a new one.	T	F
63.	I avoid unfamiliar activities so I won't be embarrassed trying to do them.	T	F
64.	People find it hard to get the point of what I'm saying.	T	F
65.	I prefer to associate with talented people.	T	F
66.	I've been the victim of unfair attacks on character or reputation.	T	F
67.	I don't show much emotion.	T	F
68.	I do things to get people to admire me.	T	F
69.	I'm usually able to start projects on my own.	T	F
70.	People think I'm odd or eccentric.	T	F
71.	I feel at ease in social situations.	T	F
72.	I've held grudges against people for years.	T	F
73.	I find it hard to disagree with people I depend on a lot.	T	F
74.	It's hard for me to stay out of trouble.	T	F
75.	I go to extremes to try to keep people from leaving me.	T	F
76.	When I first meet someone I don't say much.	T	F
77.	I have close friends.	T	F

## **Appendix Nine: Experiences in Close Relationships Inventory – Participant Version**

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 your 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:

Name:	Date:	Disagree Strongly			Neutral/ Mixed		Agree Strongly	
1. I prefer not to show a partner how I feel deep down.		1	2	3	4	5	6	7
2. I worry about being abandoned.		1	2	3	4	5	6	7
3. I am very uncomfortable being close to romantic partners.		1	2	3	4	5	6	7
4. I worry a lot about my relationships.		1	2	3	4	5	6	7
5. Just when my partner starts to get close to me I find myself pulling away.		1	2	3	4	5	6	7
6. I worry that romantic partners won't care about me as much as I care about them.		1	2	3	4	5	6	7
7. I get uncomfortable when a partner wants to be very close.		1	2	3	4	5	6	7
8. I worry a fair amount about losing my partner		1	2	3	4	5	6	7
9. I don't feel comfortable opening up to partners.		1	2	3	4	5	6	7
10. I often wish that my partner's feelings for me were as strong as my feelings for her/him.		1	2	3	4	5	6	7
11. I want to get close to my partner, but I keep pulling back.		1	2	3	4	5	6	7
12. I often want to merge completely with partners, this sometimes scares them away.		1	2	3	4	5	6	7
13. I am nervous when partners get to close to me.		1	2	3	4	5	6	7
14. I worry about being alone.		1	2	3	4	5	6	7
15. I feel comfortable sharing my private thoughts and feelings with my partner.		1	2	3	4	5	6	7
16. My desire to be very close sometimes scares people away.		1	2	3	4	5	6	7

	Disagree Strongly			Neutral/ Mixed			Agree Strongly
17. I try to avoid getting too close to my partner.	1	2	3	4	5	6	7
18. I need a lot of reassurance that I am loved by my partner.	1	2	3	4	5	6	7
19. I find it relatively easy to get close to my partner.	1	2	3	4	5	6	7
20. Sometimes I feel that I force my partners to show me more feeling, more commitment.	1	2	3	4	5	6	7
21. I find it difficult to allow myself to depend on partners.	1	2	3	4	5	6	7
22. I do not often worry about being abandoned.	1	2	3	4	5	6	7
23. I prefer not to be too close to my partner.	1	2	3	4	5	6	7
24. If I can't get my partner to show interest in me, I get upset or angry.	1	2	3	4	5	6	7
25. I tell my partner just about everything.	1	2	3	4	5	6	7
26. I find that my partner(s) don't want to get as close as I would like.	1	2	3	4	5	6	7
27. I usually discuss my problems and concerns with my partner.	1	2	3	4	5	6	7
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.	1	2	3	4	5	6	7
29. I feel comfortable depending on partners.	1	2	3	4	5	6	7
30. I get frustrated when my partner is not around as much as I would like.	1	2	3	4	5	6	7
31. I don't mind asking partners for comfort advice or help.	1	2	3	4	5	6	7
32. I get frustrated if partners are not available when I need them.	1	2	3	4	5	6	7
33. It helps to turn to my partner in times of need.	1	2	3	4	5	6	7
34. When partners disapprove of me, I feel really bad about myself.	1	2	3	4	5	6	7
35. I turn to my partner for many things, including comfort and reassurance.	1	2	3	4	5	6	7
36. I resent it when my partner spends time away from me.	1	2	3	4	5	6	7

## Appendix Ten: Relationship Questionnaire – Participant Version

*These questions are similar to the previous ones, but they have been changed in various ways. A fourth relationship style has been added and the other three descriptions are now worded differently and are presented in a new order.*

*Following are four general relationship styles that people often report. Place a checkmark next to the letter corresponding to the style that best describes you or is closest to the way you are.*

\_\_\_ A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I do not worry about being alone or having others not accept me.

\_\_\_ B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

\_\_\_ C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others do not value me as much as I value them.

\_\_\_ D. I am comfortable without close emotional relationships. It is very important for me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

*Now please rate each of the relationship styles above to indicate how well or poorly each description corresponds to your general relationship style.*

**Style A**

1	2	3	4	5	6	7
Not at all like me			Neutral/mixed			Very much like me

**Style B**

1	2	3	4	5	6	7
Not at all like me			Neutral/mixed			Very much like me

**Style C**

1	2	3	4	5	6	7
Not at all like me			Neutral/mixed			Very much like me

**Style D**

1	2	3	4	5	6	7
Not at all like me			Neutral/mixed			Very much like me

## Appendix Eleven: Experiences in Close Relationships Inventory – Staff Version

The following statements concern how people feel in close relationships. We are interested in how people generally experience relationships, not just in what is happening in their current relationship. You have been asked to rate how \_\_\_\_\_ appears to experience relationships. Please respond to each statement by indicating how much you agree or disagree with it for \_\_\_\_\_. Write the number in the space provided, using the following rating scale:

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_

Disagree Strongly		Neutral/Mixed		Agree		
1	2	3	Strongly 4	5	6	7
_____	1.	_____	prefers not to show a partner how he feels deep down.			
_____	2.	_____	worries about being abandoned.			
_____	3.	_____	is very uncomfortable being close to partners.			
_____	4.	_____	worries a lot about his relationships.			
_____	5.	Just when _____	partner starts to get close to him, he pulls away.			
_____	6.	_____	worries that partners won't care about him as much as he cares about them.			
_____	7.	_____	gets uncomfortable when a partner wants to be very close.			
_____	8.	_____	worries a fair amount about losing his partner.			
_____	9.	_____	does not feel comfortable opening up to partners.			
_____	10.	_____	often wishes that his partner's feelings for him were as strong as his feelings for her/him.			
_____	11.	_____	wants to get close to his partner, but he keep pulling back.			
_____	12.	_____	often wants to merge completely with partners, and this sometimes scares them away.			
_____	13.	_____	is nervous when partners get to close to him.			
_____	14.	_____	worries about being alone.			
_____	15.	_____	feels comfortable sharing his private thoughts and feelings with his partner.			
_____	16.	_____	desire to be very close sometimes scares people away.			
_____	17.	_____	tries to avoid getting too close to his partner.			
_____	18.	_____	needs a lot of reassurance that he is loved by his partner.			
_____	19.	_____	finds it relatively easy to get close to his partner.			
_____	20.	Sometimes _____	feels that he forces his partners to show him more feeling, more commitment.			
_____	21.	_____	finds it difficult to allow himself to depend on partners.			
_____	22.	_____	does not often worry about being abandoned.			
_____	23.	_____	prefers not to be too close to his partner.			
_____	24.	If _____	can't get his partner to show interest in him, he get upset or angry.			
_____	25.	_____	tells his partner just about everything.			
_____	26.	_____	finds that his partner(s) don't want to get as close as he would like.			
_____	27.	_____	usually discusses his problems and concerns with his partner.			
_____	28.	When _____	is not involved in a relationship, he feels somewhat anxious and insecure.			
_____	29.	_____	feels comfortable depending on partners.			
_____	30.	_____	gets frustrated when his partner is not around as much as he would like.			
_____	31.	_____	doesn't mind asking partners for comfort advice or help.			
_____	32.	_____	gets frustrated if partners are not available when he needs them.			
_____	33.	_____	finds it helpful to turn to his romantic partner in times of need.			
_____	34.	When partners disapprove of _____,	he feels really bad about himself.			
_____	35.	_____	turns to his partner for many things, including comfort and reassurance.			
_____	36.	_____	resents it when his partner spends time away from him.			

## Appendix Twelve: Relationship Questionnaire – Staff Version

*These questions are concerned with a person's general relationship style.*

*Following are four general relationship styles that people often report. Place a checkmark next to the letter corresponding to the style that best describes the person you have been asked to rate. You have been asked to rate \_\_\_\_\_*

Name:

Date:

\_\_\_ A. It is easy for \_\_\_\_\_ to become emotionally close to others. \_\_\_\_\_ is comfortable depending on others and having them depend on him. \_\_\_\_\_ does not worry about being alone or having others not accept him.

\_\_\_ B. \_\_\_\_\_ is uncomfortable getting close to others. \_\_\_\_\_ wants emotionally close relationships, but he finds it difficult to trust others completely, or to depend on them. \_\_\_\_\_ worries that he will be hurt if he allows himself to become too close to others.

\_\_\_ C. \_\_\_\_\_ wants to be completely emotionally intimate with others, but he often finds that others are reluctant to get as close as he would like. \_\_\_\_\_ is uncomfortable being without close relationships, but he sometimes worries that others do not value him as much as he values them.

\_\_\_ D. \_\_\_\_\_ is comfortable without close emotional relationships. It is very important for him to feel independent and self-sufficient, and \_\_\_\_\_ prefers not to depend on others or have others depend on him.

*Now please rate each of the relationship styles above to indicate how well or poorly each description corresponds to \_\_\_\_\_ general relationship style.*

**Style A**

1	2	3	4	5	6	7
Not at all like me			Neural/mixed			Very much like me

**Style B**

1	2	3	4	5	6	7
Not at all like me			Neural/mixed			Very much like me

**Style C**

1	2	3	4	5	6	7
Not at all like me			Neural/mixed			Very much like me

**Style D**

1	2	3	4	5	6	7
Not at all like me			Neural/mixed			Very much like me

## Appendix Thirteen: Brief Symptom Inventory

### INSTRUCTIONS:

Below is a list of problems people sometimes have. Read each one carefully, and circle the number that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Circle one number for each problem and do not skip any. If you change your mind, erase your first mark easily. Read the example below before beginning. If you have any questions please ask about them.

SEX

MALE

☐

FEMALE

☐

NAME: \_\_\_\_\_

LOCATION: \_\_\_\_\_

EDUCATION: \_\_\_\_\_

MARITAL STATUS: MAR \_\_\_\_\_ SEP \_\_\_\_\_ DIV \_\_\_\_\_ WID \_\_\_\_\_ SING \_\_\_\_\_

DATE

MO	DAY	YEAR

ID.

NUMBER

AGE

--

### EXAMPLE

HOW MUCH WERE YOU DISTRESSED BY:

Headaches

NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY
0	1	2	3	4

VISIT NUMBER: \_\_\_\_\_

HOW MUCH WERE YOU DISTRESSED BY:

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY
1 Nervousness or shakiness inside	0	1	2	3	4
2 Faintness or dizziness	0	1	2	3	4
3 The idea that someone else can control your thoughts	0	1	2	3	4
4 Feeling others are to blame for most of your troubles	0	1	2	3	4
5 Trouble remembering things	0	1	2	3	4
6 Feeling easily annoyed or irritated	0	1	2	3	4
7 Pains in heart or chest	0	1	2	3	4
8 Feeling afraid in open spaces	0	1	2	3	4
9 Thoughts of ending your life	0	1	2	3	4
10 Feeling that most people cannot be trusted	0	1	2	3	4
11 Poor appetite	0	1	2	3	4
12 Suddenly scared for no reason	0	1	2	3	4
13 Temper outbursts that you could not control	0	1	2	3	4
14 Feeling lonely even when you are with people	0	1	2	3	4
15 Feeling blocked in getting things done	0	1	2	3	4
16 Feeling lonely	0	1	2	3	4
17 Feeling blue	0	1	2	3	4
18 Feeling no interest in things	0	1	2	3	4
19 Feeling fearful	0	1	2	3	4
20 Your feelings being easily hurt	0	1	2	3	4
21 Feeling that people are unfriendly or dislike you	0	1	2	3	4
22 Feeling inferior to others	0	1	2	3	4
23 Nausea or upset stomach	0	1	2	3	4
24 Feeling that you are watched or talked about by others	0	1	2	3	4
25 Trouble falling asleep	0	1	2	3	4
26 Having to check and double check what you do	0	1	2	3	4
27 Difficulty making decisions	0	1	2	3	4
28 Feeling afraid to travel on buses, subways, or trains	0	1	2	3	4
29 Trouble getting your breath	0	1	2	3	4
30 Hot or cold spells	0	1	2	3	4
31 Having to avoid certain things, places, or activities because they frighten you	0	1	2	3	4
32 Your mind going blank	0	1	2	3	4
33 Numbness or tingling in parts of your body	0	1	2	3	4
34 The idea that you should be punished for your sins	0	1	2	3	4
35 Feeling hopeless about the future	0	1	2	3	4

Please continue on the following page

HOW MUCH WERE YOU DISTRESSED BY:

		NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY
trouble concentrating	36	0	1	2	3	4
feeling weak in parts of your body	37	0	1	2	3	4
feeling tense or keyed up	38	0	1	2	3	4
thoughts of death or dying	39	0	1	2	3	4
having urges to beat, injure, or harm someone	40	0	1	2	3	4
having urges to break or smash things	41	0	1	2	3	4
feeling very self-conscious with others	42	0	1	2	3	4
feeling uneasy in crowds	43	0	1	2	3	4
never feeling close to another person	44	0	1	2	3	4
spells of terror or panic	45	0	1	2	3	4
getting into frequent arguments	46	0	1	2	3	4
feeling nervous when you are left alone	47	0	1	2	3	4
others not giving you proper credit for your achievements	48	0	1	2	3	4
feeling so restless you couldn't sit still	49	0	1	2	3	4
feelings of worthlessness	50	0	1	2	3	4
feeling that people will take advantage of you if you let them	51	0	1	2	3	4
feelings of guilt	52	0	1	2	3	4
the idea that something is wrong with your mind	53	0	1	2	3	4

## Appendix Fourteen: Childhood Maltreatment Schedule

### Childhood Interview

#### a. Parental Physical Availability

1. Did your natural (biological) mother live with you until you were at least 16?  
Yes ☐ No ☐

If not, how old were you when she stopped being present?

(Check to see if she was never present: \_\_\_\_\_ ) \_\_\_\_\_ years old

Why did she stop being present?

Death ☐

Illness (psychiatric or physical) ☐

Separation or divorce ☐

Other reason: \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Did your natural (biological) father live with you until you were at least 16?  
Yes ☐ No ☐

If not, how old were you when he stopped being present?

(Check to see if he was never present: \_\_\_\_\_ ) \_\_\_\_\_ years old

Why did he stop being present?

Death ☐

Illness (psychiatric or physical) ☐

Separation or divorce ☐

Other reason: \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Did you ever have a stepmother or adoptive mother?  
Yes ☐ No ☐

If yes, from what age \_\_\_\_\_ to what age \_\_\_\_\_ ?

If more than one, list ages for each:

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Did you ever have a stepfather or adoptive father?

Yes ☐ No ☐

If yes, from what age \_\_\_\_\_ to what age \_\_\_\_\_ ?

If more than one, list ages for each:

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Did you ever have foster parents?

Yes ☐ No ☐

If yes, from what age \_\_\_\_\_ to what age \_\_\_\_\_ ?

If more than one, list ages for each:

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Were you raised by any other adults?

Yes ☐ No ☐

If yes, from what age \_\_\_\_\_ to what age \_\_\_\_\_ ?

If more than one, list ages for each:

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Did you ever live in a 'group home' or special residential school?

Yes ☐ No ☐

If yes, from what age \_\_\_\_\_ to what age \_\_\_\_\_ ?

If more than one, list ages for each:

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Were you ever in a juvenile detention facility or other institution?

Yes ☐ No ☐

If yes, from what age \_\_\_\_\_ to what age \_\_\_\_\_?

If more than one, list ages for each:

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

age \_\_\_\_\_ to age \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How well could you predict when your mother/female carer would and would not be around?

Never knew when  
she would or would  
not be around

1

2

3

4

Always knew when  
she would and would  
not be around

5

How well could you predict when your father/male carer would and would not be around?

Never knew when  
he would or would  
not be around

1

2

3

4

Always knew when  
he would and would  
not be around

5

**b. Parental Disorder**

1. Before the age of 16, did one of your parents or stepparents or foster parents ever have to go into a psychiatric hospital for psychiatric problems? Yes ☐ No ☐

If yes, who? \_\_\_\_\_

How old were you on each occasion? \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Other than being in psychiatric hospital, did one of your parents or stepparents or foster parents ever receive psychotherapy or psychiatric medication before you were 16?

Yes ☐ No ☐

If yes, who? \_\_\_\_\_

How old were you on each occasion? \_\_\_\_\_

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Before the age of 16, did one of your parents or stepparents or foster parents ever have problems with drugs Yes ☐ No ☐  
or alcohol? \*\* Yes ☐ No ☐

If yes, who? \_\_\_\_\_

About how old were you when it started? \_\_\_\_\_

About how old were you when it stopped? \_\_\_\_\_

(Check here if it hasn't stopped yet) \_\_\_\_\_

Further information: \_\_\_\_\_

(\*\*Did this ever result in either parent having medical problems, getting divorced or separated, or being fired from work, or being arrested for intoxication in public or while driving?)

4. Before the age of 16, did you ever see one of your parents hit or beat up the other parent? Yes ☐ No ☐

If yes, how many times can you recall this happening? \_\_\_\_\_ times

Did your father ever hit your mother? Yes ☐ No ☐

Did your mother ever hit your father? Yes ☐ No ☐

Did one or more of these times result in someone bleeding, needing medical care or the police being called? Yes ☐ No ☐

Further information: \_\_\_\_\_

### ***c. Parental Psychological Availability***

1. On average, *before the age of 11*, how much did you feel that your father/stepfather/foster father loved or cared about you?

Not at all  
1

2

3

4

Very much  
5

Further information: \_\_\_\_\_

2. On average, *before the age of 11*, how much did you feel that your mother/stepmother/foster mother loved or cared about you?

Not at all				Very much
1	2	3	4	5

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. On average, *from age of 11 through to age 16*, how much did you feel that your father/stepfather/foster father loved or cared about you?

Not at all				Very much
1	2	3	4	5

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. On average, *from age of 11 through to age 16*, how much did you feel that your mother/stepmother/foster mother loved or cared about you?

Not at all				Very much
1	2	3	4	5

Further information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How well could you predict when your mother/female carer would and would not be loving and caring?

Never knew when she would or would not be loving and caring				Always knew when she would and would not be loving and caring
1	2	3	4	5

How well could you predict when your father/male carer would and would not be loving and caring?

Never knew when he would or would not be loving and caring				Always knew when he would and would not be loving and caring
1	2	3	4	5

#### **d. Psychological Abuse**

Verbal arguments and punishment can range from quiet disagreement to yelling insulting and other more extreme behaviours. When you were 16 or younger, did any of the following happen to you? Answer for your parents or stepparents or foster parents or other adult in charge of you as a child.

Use the following rating scale for each of the items below:

0 = never  
1 = 1-2 a year  
2 = up to once every two months  
3 = up to one a month  
4 = up to once a week  
5 = up to once a day  
6 = every day

	Mother	Female carer	Female carer	Father	Male carer	Male carer
1. Yell at you						
2. Insult you						
3. Criticize you						
4. Try to make you feel guilty						
5. Ridicule or humiliate you						
6. Embarrass you in front of others						
7. Make you feel like a bad person						

Duration: \_\_\_\_\_

How well could you predict when your mother/female carer would and would not do this?

Never knew when she would or would not do this

1

2

3

4

Always knew when she would and would not do this

5

How well could you predict when your father/male carer would and would not do this?

Never knew when he would or would not do this

1

2

3

4

Always knew when he would and would not do this

5

**e. Physical Abuse**

(If the answer to a question in bold is no, skip to the next bold type question).

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**1. Injury**

**Before the age of 16, did you mother/female carer ever hit, punch, grab push or injure you in any way?** Yes ☐ No ☐

Did she spank, hit or push you with a hand? Yes ☐ No ☐  
If so, approximately how often? \_\_\_\_\_

Did she ever beat you with an object? Yes ☐ No ☐  
If so, approximately how often, and with what? \_\_\_\_\_

Did she ever cause bruising or bleeding? Yes ☐ No ☐  
If so, approximately how often, and with what? \_\_\_\_\_

Has she hurt you so badly that you (had or should have) received medical/hospital treatment? Yes ☐ No ☐

If so, approximately how many times? \_\_\_\_\_

Duration? \_\_\_\_\_

How well could you predict when your mother/female carer would and would not do this?

Never knew when  
she would or would  
not do this

1

2

3

4

Always knew when she  
would and would not  
do this

5

Use the following rating scale for each of the items below:

0 = never  
1 = 1-2 a year  
2 = up to once every two months  
3 = up to one a month

4 = up to once a week  
5 = up to once a day  
6 = every day

**Before the age of 16, did you father/male carer ever hit, punch, grab push or injure you in any way?** Yes ☐ No ☐

Did he spank, hit or push you with a hand? Yes ☐ No ☐  
If so, approximately how often? \_\_\_\_\_

Did he ever beat you with an object? Yes ☐ No ☐  
If so, approximately how often, and with what? \_\_\_\_\_

Did he ever cause bruising or bleeding? Yes ☐ No ☐  
If so, approximately how often, and with what? \_\_\_\_\_

Has he hurt you so badly that you (had or should have) received medical/hospital treatment? Yes ☐ No ☐

If so, approximately how many times? \_\_\_\_\_

Duration? \_\_\_\_\_

How well could you predict when your father/male carer would and would not do this?

Never knew when  
he would or would  
not do this

1

2

3

4

Always knew when he  
would and would not  
do this

5

## 2. Restraint

(If the answer to a question in bold is no, skip to the next bold type question).

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**Before the age of 16, was restraint ever perpetrated by your mother/female carer?**

Yes ☐ No ☐

Did she ever hold you down or send you to your room?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she ever lock you in your room?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she ever lock you in a cupboard or a small space?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she ever tie you up or chain you to something?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Duration? \_\_\_\_\_

How well could you predict when your mother/female carer would and would not do this?

Never knew when  
she would or would  
not do this

1

2

3

4

Always knew when she  
would and would not  
do this

5

**Before the age of 16, was restraint ever perpetrated by your father/male carer?**

Yes ☐ No ☐

Did he ever hold you down or send you to your room?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he ever lock you in your room?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he ever lock you in a cupboard or a small space?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he ever tie you up or chain you to something?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Duration? \_\_\_\_\_

How well could you predict when your father/male carer would and would not do this?

Never knew when  
he would or would  
not do this

1

2

3

4

Always knew when he  
would and would not  
do this

5

### 3. Threats

(If the answer to a question in bold is no, skip to the next bold type question).

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**Before the age of 16, were any threats perpetrated by your mother/female carer?**

Yes ☐ No ☐

Did she ever threaten to leave and never come back?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she threaten to leave you somewhere that frightened you or where you would not be able to get back home?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she threaten to hurt or kill someone (or pet) you cared about? Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she threaten to hurt or kill you?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Duration? \_\_\_\_\_

How well could you predict when your mother/female carer would and would not do this?

Never knew when  
she would or would  
not do this

1

2

3

4

Always knew when she  
would and would not  
do this

5

**Before the age of 16, were any threats perpetrated by your father/male carer?**

Yes ☐ No ☐

Did he ever threaten to leave and never come back?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he threaten to leave you somewhere that frightened you or where you would not be able to get back home?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he threaten to hurt or kill someone (or pet) you cared about?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he threaten to hurt or kill you?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Duration? \_\_\_\_\_

How well could you predict when your father/male carer would and would not do this?

Never knew when  
he would or would  
not do this

1

2

3

4

Always knew when he  
would and would not  
do this

5

#### **4. Sexual Abuse**

(If the answer to a question in bold is no, skip to the next bold type question).

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**Before the age of 16, were any sexual advances made by your mother/female carer?**

Yes ☐ No ☐

Did she kiss you in a sexual way or have you show to her the sexual parts of your body?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she touch your body in a sexual way, or make you touch the sexual parts of her body?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she stimulate or masturbate you, or have you stimulate or masturbate her?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she ever have oral, and/or vaginal intercourse with you, or place her fingers or objects in you anus or vagina

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did she coerce you in any way (e.g., bribe or threaten you)?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

What age were you when this started? \_\_\_\_\_ years

How many years to this go on for? \_\_\_\_\_ years

How well could you predict when your mother/female carer would and would not do this?

Never knew when  
she would or would  
not do this

1

2

3

4

Always knew when she  
would and would not  
do this

5

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**Before the age of 16, were any sexual advances made by your father/male carer?**

Yes ☐ No ☐

Did he kiss you in a sexual way or have you show to her the sexual parts of your body?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he touch your body in a sexual way, or make you touch the sexual parts of her body?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he stimulate or masturbate you, or have you stimulate or masturbate her?

Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he ever have oral, anal and/or vaginal intercourse with you, or place her fingers or objects in you anus or vagina Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

Did he coerce you in any way (e.g., bribe or threaten you)? Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

What age were you when this started? \_\_\_\_\_ years  
How many years to this go on for? \_\_\_\_\_ years

How well could you predict when your father/male carer would and would not do this?

Never knew when  
he would or would  
not do this

1

2

3

4

Always knew when he  
would and would not  
do this

5

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**Before the age of 16, were any sexual advances made towards you by another family member?** Yes ☐ No ☐

If so, what relation to you were they? \_\_\_\_\_

Did he/she kiss you in a sexual way or have you show to her the sexual parts of your body? Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

Did he/she touch your body in a sexual way, or make you touch the sexual parts of her body? Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

Did he/she stimulate or masturbate you, or have you stimulate or masturbate her? Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

Did he/she ever have oral, anal and/or vaginal intercourse with you, or place her fingers or objects in you anus or vagina Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

Did he/she coerce you in any way (e.g., bribe or threaten you)? Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

What age were you when this started? \_\_\_\_\_ years  
How many years to this go on for? \_\_\_\_\_ years

How well could you predict when he/she would and would not do this?

Never knew when  
they would or would  
not do this

1

2

3

4

Always knew when  
they would and would  
not do this

5

Use the following rating scale for each of the items below:

0 = never

1 = 1-2 a year

2 = up to once every two months

3 = up to one a month

4 = up to once a week

5 = up to once a day

6 = every day

**Before the age of 16, were any sexual advances made by any one else?**

Yes ☐ No ☐

How did they know you/was it a stranger? \_\_\_\_\_

Did he/she kiss you in a sexual way or have you show to her the sexual parts of your body?  
Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he/she touch your body in a sexual way, or make you touch the sexual parts of her body?  
Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he/she stimulate or masturbate you, or have you stimulate or masturbate her?  
Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he/she ever have oral, anal and/or vaginal intercourse with you, or place her fingers or  
objects in you anus or vagina  
Yes ☐ No ☐

If so, how often? \_\_\_\_\_

Did he/she coerce you in any way (e.g., bribe or threaten you)? Yes ☐ No ☐  
If so, how often? \_\_\_\_\_

What age were you when this started? \_\_\_\_\_ years

How many years to this go on for? \_\_\_\_\_ years

How well could you predict when he/she would and would not do this?

Never knew when  
they would or would  
not do this

1

2

3

4

Always knew when  
they would and would  
not do this

5

## **Appendix Fifteen: Parental Caregiving Questionnaire**

### **Mother/Main Female Carer**

Warm/responsive – she was generally warm and responsive; she was good at knowing when to be supportive and when to let me operate on my own; our relationship was almost always comfortable and I have no major reservations or complaints about it.

1	2	3	4	5	6	7	8	9
Not at all characteristic							Very characteristic	

Cold/rejecting – she was fairly cold and distant, or rejecting, not very responsive; I wasn't her highest priority, her concerns were often elsewhere; it's possible that she would just as soon not have had me.

1	2	3	4	5	6	7	8	9
Not at all characteristic							Very characteristic	

Ambivalent/inconsistent – she was noticeably inconsistent in her reaction to me, sometimes warm and sometimes not; she had her own agendas which sometimes got in the way of her receptiveness and responsiveness to my needs; she definitely loved me but didn't always show it in the best way.

1	2	3	4	5	6	7	8	9
Not at all characteristic							Very characteristic	

## **Father/Main Male Carer**

**Warm/responsive** – he was generally warm and responsive; she was good at knowing when to be supportive and when to let me operate on my own; our relationship was almost always comfortable and I have no major reservations or complaints about it.

1	2	3	4	5	6	7	8	9
Not at all characteristic							Very characteristic	

**Cold/rejecting** – he was fairly cold and distant, or rejecting, not very responsive; I wasn't his highest priority, his concerns were often elsewhere; it's possible that he would just as soon not have had me.

1	2	3	4	5	6	7	8	9
Not at all characteristic							Very characteristic	

**Ambivalent/inconsistent** – he was noticeably inconsistent in his reaction to me, sometimes warm and sometimes not; he had his own agendas which sometimes got in the way of his receptiveness and responsiveness to my needs; he definitely loved me but didn't always show it in the best way.

1	2	3	4	5	6	7	8	9
Not at all characteristic							Very characteristic	