Sexual and violent aggression:

Attachment and interpersonal perspectives

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Thesis submitted for degree of PhD

2003

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Abstract

Interpersonal violence is a subject of particular concern to society. Although many theories exist about the social organisation of violence, relatively little has been written about the interpersonal processes that are at work in the act of violence of perpetrator on victim, or about the different forms that violent action can take.

Two specified forms of aggression are investigated in this thesis using instruments that examine mental representations of attachment and interpersonal functioning. The sample chosen is that of mentally disordered offenders and the forms of violence are sexual violence and interpersonal violence without sexual motivation. A multi-level approach is used to examine the attachments and object relations of violent and sexual offenders, using interview based methodologies, repertory grid and questionnaire methods. The primary emphasis is upon the persons' reported experiences of themselves, their primary caretakers, and others. In addition, the capacity of violent and sexual offenders to reflect on their own and others' minds, and to differentiate between self and other (including key object relationships and victim) are examined.

There is some support for the prediction that there will be differences in the expression of attachments and interpersonal relating between offenders who commit sexual violence when compared to those who commit non sexual violence. There is also support for the approach of using measures from different theoretical traditions to bring a richer perspective on interpersonal functioning.

Acknowledgements

This thesis owes a great deal to the efforts of a number of people. It would not have been possible to complete the work without the generosity of a number of bodies who awarded funding to support the project, in particular the data collection; the rating of interviews; and the travel costs to present early results. Those bodies were, the Special Health Services Authority; the High Security Psychiatric Services Commissioning Board; the Calman Bursary fund; the psychology department's of both Broadmoor and Rampton Hospitals in their support for the author's continuing professional development; the Tavistock and Portman NHS Trust Research and Development funds; the Tavistock Institute for Medical Psychology bursary scheme; and the Developmental Psychopathology Research Unit at the Tavistock Clinic. I am grateful for their backing.

Early support and feedback was given from the staff of the psychology departments at Rampton and Broadmoor Hospitals as well as from colleagues from other disciplines who expressed interest in the ideas. Staff in Medical Records at Broadmoor Hospital were both pleasant, efficient and tolerant of my demands. I would also like to thank Professor Derek Perkins, Dr Kevin Howells and Professor Michael Barkham for early supervision on this work.

Funding for aspects of the project allowed for the involvement of Jessica Williams-Saunders and Anila George who provided invaluable assistance with the interviewing and data collection. I am particularly indebted to the following people who patiently and doggedly persevered with the transcribing of the interviews and helped to provide accurate transcription: Kathleen White; Jane Heaton; Jenny Hirons; and Sue Cook.

Two people are owed particular thanks: Firstly, Professor Peter Hobson for committed and thorough supervision that greatly assisted me in my thinking about the ideas contained within the thesis and also for persistent feedback about writing style and coherence of mind and transcript! Secondly, Dr Chris Evans for invaluable statistical advice and support without which the data analysis in this thesis would have been a

much poorer affair. Much of what is good in this work grows out of their advice and intelligent criticism.

I am also very grateful to Chris (Evans) and our children for their encouragement to complete the thesis and their tolerance of my pre-occupation and ill temper at times.

Finally, I would like to especially express my thanks to the patients who took part in this study and without whom, there would be no thesis. Mental illness and crime both arouse strong emotions and reactions in individuals and society at large. People who suffer from these problems are often disparaged and dismissed. However, it is only through a depth understanding of the complex individual and societal processes that contribute to the development of mental illness and crime that we will be able to take effective steps to impinge on the factors that make people vulnerable to these life courses. I hope this work contributes some piece of this jigsaw puzzle.

Table of Contents

List of tables

List of figures

Chapter 1: Introduction and Overview

I distrust the incommunicable: it is the source of all violence.

J.P. Sartre (1947)

In violence, we forget who we are.

Mary McCarthy (1961)

Violence has permeated our societies throughout history and many theories have been developed about the social organisation of violence and about the social pressures and stresses that provoke violence. However, relatively little has been written about the interpersonal processes that are at work in the act of violence of perpetrator on victim, or about the different courses that violent action can take.

Violent acts account for only a small proportion of the criminal activity in this country, yet the concern that they generate is apparent in the attention paid to them by government, the public and also the media. Likewise, violence is a relatively rare by-product of the actions of people with mental health problems, but generates a great deal of concern. The consequences of such actions can be devastating in psychological and emotional terms for victims, offenders and their respective families. They are also extremely costly in terms of containment and rehabilitation. Part of the reason for this attention to violence may be because such actions touch the deep-seated anxieties that are generated in all of us about how little we understand or can predict of the origins and causes of violent action.

Sexual offending has also received intense public attention. Laws, (2000) sets out a public health response to the problems of sexual offending, arguing that sexual offending is a health problem and should be treated as such instead of pursuing the ineffective severe punitive approaches that have become commonplace in some countries. From a public health perspective, the most efficient way to intervene is to develop our understanding of the factors that contribute to the development of aggression and sexual offending as these approaches will ultimately inform primary prevention as well as the tertiary interventions of treatment. For example, we know both from research and clinical experience that being on the receiving end of violence

or sexual assault, particularly in childhood and by care givers have detrimental effects on mental health and other areas of social functioning (Burgess, Hartman, & McCormack, 1987; Hill 2003). However, our understanding of the mechanisms that underlie violent behaviour is extremely limited. A better understanding of these would be likely to inform the development of treatment and other rehabilitative interventions which are currently very limited, particularly if success is measured by recidivism rates.

There are many reasons for this. As we move out of the twentieth century, there is an exponential increase of knowledge in many aspects of life, particularly communication technology and the sciences. The sheer volume of this can sometimes lead to confusion and a tendency to try to conflate different lines of argument. In such circumstances, it is important to articulate differences in as clear and unambiguous way as possible and to follow through certain constrained lines of argument to their logical conclusion, in order that they can then be re-assessed, refined and applied to new questions.

This thesis attempts this for specific questions in the field of aggression. Here two different forms of aggression are examined for their differences and overlaps using specified tools in the area of attachment and interpersonal relations. To look at this in more detail, the premise is taken that breaching the body boundary is an essentially interpersonal activity and different from other violent acts such as robbery, arson, planting bombs, etc. which are 'hands off'. The two forms of interpersonal violence that are compared are sexual assault and violent assault without any overt sexual motivation.

There are many approaches to explaining sexual offending or violent assault and a number of factors may have an influence, for example, genetics; neurological features; social deprivation; socialisation processes; and parenting. This study specifically focuses on the role of attachment, object relations (i.e. the mental representation of personal relationships) and interpersonal capacities on sexual and non-sexual but violent crime in a group of mentally disordered offenders. Specifically the adult attachment classifications, reflective functioning, interpersonal problems and interpersonal construing will be compared according to a number of pre-hoc hypotheses. There is general agreement that the early experiences and parenting of people who commit violence have a critical influence and this evidence will be

reviewed. Attachment theory provides a research tool that allows us to begin to examine the nature of the influence of attachment and interpersonal capacity.

This thesis will describe the attachments and object relations of violent and sexual offenders and examine whether there are indicators of factors in their histories that might affect such disturbance. Such factors may be *actual* (number and age of separations from primary object/carer) or *perceived* (the person's reflections on their experience of their primary caretakers). As this is a study that looks retrospectively at people's experience, the primary focus will be on the latter (i.e. perceived attachment experiences), but some information will be presented about the actual nature of these experiences. Next, the capacity of violent and sexual offenders to reflect on the mind and experience of another person and to differentiate between self and other (including key object relationships and victim) will be examined. Finally, interpersonal problems will assessed and compared both between the groups and with other populations.

The participant group chosen are mentally disordered offenders. All subjects had histories of committing interpersonal offences. The group was divided into those for whom there was an overt sexual motivation (with or without concomitant violence) and those for whom the offence was violent but there was no apparent sexual motivation in the offence when clinical records and accounts of the offences were examined. Such a group of mentally disordered offenders are also broadly differentiated in relation to their mental disorder both in terms of the Mental Health Act, 1983 (HMSO, 1983) under which they are detained and also according to psychiatric classification. Correspondingly, the group is also divided into those with severe mental illness (DSM-IV, Axis I disorders with a clear psychotic component) and those with personality disorders (Axis II personality disorders and disorders of intentionality/impulsivity otherwise classified on Axis I such as paraphilias, substance dependency, etc.) so as not to obscure differences that may exist.

The topic of this thesis has a background literature that is unusually diverse and can be approached from a number of different theoretical positions. For example, there are fundamental differences of approach in the prison literature and the more clinical literature of high secure mental health care. The psycho-analytic literature tends not to refer to the attachment or the forensic literature and vice versa. This lack of overlap may also be observed in the clinical work of professionals who work solely in sexual

offender programmes in prison; psychoanalysts interested in early object relationships and trauma and their relationship to perversions; attachment theorists; etc. This means that there are papers in diverse literatures that are rarely cross-referenced.

Developmental antecedents to aggression

Some of the findings about antecedents to general criminal behaviour and delinquency will be discussed. Subsequently the more specific areas of antecedents to violence and sexual offending will be presented.

As long ago as 1944 John Bowlby was describing the impact that disruption and difficulties in early care giving relationships has on capacity for secure attachment relationships. These seminal papers: 'Forty-four juvenile thieves: their characters and home life' I and II (Bowlby, 1944a; Bowlby, 1944b) are amongst the first examples of a forensic research project and bear close reading some fifty years after publication. In his first paragraphs Bowlby writes about the negative effects of ambivalent parenting, experiences of separation, the impact of early emotional traumas on subsequent delinquent behaviour. What is critically important in his ideas is the recognition that clinical knowledge and observation are essential in filtering the research process since they guide the researcher towards those factors that it is important to uncover, investigate and explore using more systematic methods. He describes it thus:

> "Amongst the children described here is at least one whose life seemed to have been ruined by a dramatic and tragic episode in her ninth year. Here again it was only the knowledge that such events are important and must be systematically enquired into which led the investigator to discover the nature and full implication of events which had occurred over three years previously. ...My experience has shown me again and again that if these factors are not looked for they are not found, and that as in any other branch of science trained and experienced observers are essential."
>
> (Bowlby, 1944b)Pg. 20

Based on his observations, Bowlby identified six character types. In this investigation, 40% of the delinquents suffered an early and prolonged separation from their mother (that is, one that occurred during the first five years of life) which contrasted with only 5% of the control group at the same clinic. However, of the group of juvenile thieves who are described as 'affectionless characters', 85% had suffered an early separation of that type. Overall the 'affectionless' group proved to have clearly different earlier

experiences and the more pathological criminal career. This group were characterised by lack of normal affection, shame and responsibility. Thus the incidence of prolonged separation from mothers was associated with a more severe degree of pathology in the group described.

Other negative indicators included living with a mother who was ambivalent, hostile or anxious and living with a father who, in the early years, actively or openly expressed dislike of the child. Bowlby comments that the affectionless group lacked the usual inhibition of aggressive and libidinal impulses that children feel and they were unable to make personal permanent relationships owing to their inability to feel or express love. In his words this amounts "to a massive inhibition of object love combined with excessive and relatively uninhibited libidinal and aggressive impulses."

Longitudinal studies and meta-analyses

These early finding of Bowlby's have been supported by longitudinal studies such as the National Survey of Health and Development (Wadsworth, 1979), the Newcastle 1,000 Family Study (Kolvin, Miller, Scott, Gatzanis, & Fleeting, 1990) and the Cambridge Study in Delinquent Development (Farrington & West, 1990; West, 1982). Common findings in these studies include the negative effects of social deprivation, of separations in childhood, poor maternal care and broken homes. In the Cambridge study, the following was noted

> "Parents whose child-rearing practices included harsh or erratic discipline, a cruel, passive or neglecting attitude and poor overall supervision were more likely to produce delinquent teenagers"
>
> reported in Utting, Bright, & Henricson, (1993).

It is noteworthy that the capacity to develop and sustain a good attachment in adulthood with a partner was a protective factor. These are broad findings and the task now is to try and establish clearer, more direct links between early experiences and relationships and later problems. It is by identifying clearer patterns that mechanisms can be understood and treatment approaches informed.

Farrington, (1999) notes that a wide prevalence of offending does exist among men with a significant drop off after adolescence. However there is clearly a sub group

whose offending is chronic. He also notes that although offending is largely versatile (i.e. people commit a range of offences), there are factors that under-pin certain offending (e.g. anti-social personality) and he points to the need for work on typologies of offenders that examines the overlap between developmental and criminological research. He also notes that although there is information about risk factors, there is limited information about the interactive, dependent or sequencing effects of different risk factors. For example, he asks whether there are critical periods for some risk factors or indeed preventative factors. The most important risk factors are:

> "hyperactivity-impulsiveness-attention deficit, low intelligence or attainment, convicted parents or siblings, poor parental supervision, harsh or erratic discipline, parental conflict, separation or divorce, low income family, poor housing, large family size, delinquent friends, attending a high delinquency rate school, and living in a high crime neighbourhood"
>
> (Farrington, 1999)

Another important longitudinal study that looks at the development of male offending is the Pittsburgh Youth Study. This study was designed to maximize the number of potentially delinquent boys in this sample. Loeber, Farrington, Stouthamer-Loeber, Moffitt, & Caspi, (1998b) set out some of the findings from this study. Impulsivity was a key factor (both behavioural and cognitive) with delinquent boys scoring nearly two standard deviations higher than boys who had never been delinquent at age 13. They also demonstrated lower IQ scores in the delinquent boys (by 8-11 points), which were largely maintained (at most being improved by 1 to 2 IQ points) when race, social economic class, neighbourhood were controlled for. Even controlling for impulsivity only had a mild effect on the differences in IQ scores. Delinquency was associated with greater negative emotionality and less constraint. They discuss these findings in the context of the adult literature on psychopathy as lack of guilt was also found to be an important factor in relation to later delinquency. Parental factors such as poor supervision, poor parent-child communication and physical punishment, had differential effects depending on the age of the boys.

Other authors also provide data about predictors of serious delinquency. Lipsey & Derzon, (1998) carried out a meta-analysis to look at both serious offending and violence and note that predictors vary at different ages. For example, at age 6-11, 'substance use' (generally tobacco or alcohol) constitutes a high risk whereas by age 12-

14 it is a relatively low predictor of delinquency. Conversely, having anti-social peers is high ranking for 12-14 year olds but low ranking for the 6-11 year olds.

Table 1, below, shows the rank ordering of influential factors for the two groups in relation to delinquency (highest to lowest).

Table 1 Influential factors for delinquency by age (Lipsey et al., 1998)

Age 6-11	Age 12-14
General offences	Social ties
Substance use	Anti-social peers
Gender	General offences
Family SES	Aggression
Antisocial parents	School attitude/performance
Aggression	Psychological condition
Ethnicity	Parent-child relations
Psychological condition	Gender
Parent-child relations	Physical violence
Social ties	Anti-social parents
Problem behaviour	Person crimes
School attitude/performance	Problem behaviours
Medical/physical	IQ
IQ	Broken home
Other family characteristics	Family SES
Broken Home	Abusive parents
Abusive parents	Other family characteristics
Anti-social peers	Substance abuse
	Ethnicity

Data taken from the Pittsburgh Youth Study. (Loeber et al., 1998b)

The longitudinal and meta-analytic studies described above are supplemented by other work which describes the influence of factors from a range of domains. For example, epidemiological factors; peer relationships and gang membership; factors in social sphere; familial/interpersonal factors; childhood abuse and neglect have all been found to have an important effect.

Epidemiological and social factors

Lipsey and Derzon (1998) noted the effects of gender and ethnicity, particularly in children aged 6 – 11. However, these effects change over time and, more importantly, cannot be easily disentangled from associated factors such as the increased experience

of discrimination for youths from ethnic minority groups. For example, Hawkins et al., (1998) note that people reporting incidents of racial discrimination are more likely to report being violent as adults. These authors specifically distinguish violence from other forms of delinquency using a broader range of methodologies than Lipsey et al., (1998).

This literature illustrates the enormous range of factors that have been identified as having some association with later delinquency. For example, pregnancy and delivery complications at an individual's birth have been shown to have an association with later violence, though only in children raised in unstable home environments. However, this was not replicated in the Cambridge study nor in an American study of African Americans. Another example of the breadth and complexity of influences can be seen in the fact that a factor that may be associated with success in one walk of life, for example low resting pulse in athletes may, for other people, show an association with later violence (it is suggested that low resting pulse is related to a fearless temperament). Hawkins et al., (1998) describe the association with poverty; however it is clear that poverty is a complex variable in terms of how its effects are mediated. For example, poverty with high mobility is a much stronger predictor than poverty in stable populations. Other influential factors that are predictive of later violence include greater availability of drugs, knowledge of neighbourhood adults involved in crime and exposure to violence both in general and also in the home. It is also well documented that certain situational factors predict violence, for example substance use and presence of a weapon (Hawkins et al., 1998). In fact, these situational variables come to light where violence is reported or comes to the attention of the police but little is known about situations where these factors are present and no violence takes place. Loeber & Farrington, 1998a; Loeber et al., (1998b) also describe some protective factors, including low rates of social withdrawal, low incidence of disruptive behaviour, as well as positive motivational and attitudinal factors.

Family and parenting factors

Poor family management practices appear to be important, with failure to set clear expectations, poor monitoring and supervision and severe or inconsistent discipline predicting later delinquency and substance abuse. McCord, (1979) in a study first reported in 1959 and followed up in 1979, reported that poor supervision and high level

of aggressiveness used by parents in disciplining children predicted convictions for personal crimes into the subjects' forties. Farrington, (1989) reported that an authoritarian parenting style, poor supervision, harsh parental discipline and a cruel, passive, neglecting attitude predicted later violence. In their meta-analysis, Lipsey et al., (1998) noted that factors like broken homes and abusive parents, though predictors are not strongly predictive of violence and they are influenced by other 'co-morbid' factors. Farrington, (1989) reports that parent-child separation before the age of 10 predicts later violence and this very specific factor is not included in the meta-analysis. There is also an association with arrest and violence in fathers. Moffitt, (1987) carried out an adoption study to examine any potential biological reason for this and found no evidence that biological factors played a part. Finally, it is important to note that a number of studies show that parental involvement is a protective factor.

Difficult childhood experiences

Looking at adverse personal experiences, Widom, (1989) examined at the association that sexual abuse, physical abuse and neglect have with later violence and found the strongest association for neglect. In this study, people who had experienced sexual abuse were slightly less likely to have committed a violent offence and people who had experiences of physical violence only slightly more than those who had no experience of physical violence.

Peer relationships and school experience

Farrington, (1989) noted that academic failure also appears to be a predictor of future aggression and that truancy may also have some predictive value. Lipsey et al., (1998) note that having delinquent or anti-social peers in adolescence is related to later violence and the evidence for the relationship between gang membership and later delinquency and violence is stronger still (Loeber et al., 1998a), (Thornberry, 1998). General involvement in other antisocial behaviours has been consistently linked to later violence and early attitudes and beliefs, for example, dishonesty, hostility towards police, pro-violent attitudes and so on, all of which show an association with aggression (Hawkins et al., 1998).

Intelligence and personality factors

The findings of Loeber et al., (1998b) regarding the influence of IQ and impulsivity are set out above as are the findings of Lipsey et al., (1998). Hawkins et al., (1998) note that childhood hyperactivity, early aggressiveness and onset of violence all show some association with later delinquency, though interestingly anxiety shows a slight negative relationship.

Specific developmental antecedents to sexual offending

There are fewer studies looking at the factors that influence later sexual offending behaviour differentiated from other violence. However, Prentky et al., (1989) examined this, and noted that numerous caregivers as well as sexual deviation in the family are associated with sexual aggression whereas numerous institutionalisations are associated with severity of general aggression. They also reported that these developmental histories predicted the severity of aggression used rather than the frequency. From a different perspective, Burgess et al., (1987) followed up children who had been abused as children and compared them with a non-abused control group. Although a relatively small study, their findings showed that their group of abused young people were more likely to become involved in drug use, juvenile delinquency and crime than the control group, particularly where the abuse had continued for more than a year. Haapasalo & Pokela, (1999) also report associations of neglect and punitive attitudes in parents, with criminality in offspring. They use these findings to support a traumatogenic model of criminality. Marshall & Marshall, (2000) also note the problematic effect of poor relationships with parents linking this in a more behavioural model to increased vulnerability to sexual and other abuse, and also to use of sexual activity (particularly masturbation) and fantasy in adolescence to manage stress and anxiety about social relationships.

Conclusions

These findings, particularly those from the longitudinal studies, are important in setting out some factors that impinge on the likelihood of serious delinquency and violence in adolescence and through this, to establishing a pathway for people who go on to commit violence in adulthood. It is important to establish whether these factors are consistent with retrospective accounts of influential factors for violent and sexually

violent offenders. Interpersonal violence and particularly sexual violence are relatively infrequent and could in theory have different developmental pathways. Also, in considering these findings, we can see that a number of more or less malleable factors influence later violence but we know little about the multivariate influences of these, which may of course be very diverse for different individuals. One approach may be to try and identify whether there are particular predictive factors in theoretical causal sequences that need to be identified and understood. However, it is likely that the protective and vulnerability influences are varied and complex and this approach is likely to be costly and of only partial value. The factors that this study will examine centre on people's experiences of their relationships with parents and in so doing may shed some light on the role of parental conflict, attitudes and separations.

Theoretical approaches to intervention

Many of the common theories describing the development and maintenance of sexual offending and violence have come from the treatment literature. In many ways there has been limited cross-fertilisation of ideas. Psychoanalytic theories were dominant and informed treatment approaches for some time until the 1960's when initial studies found the interventions to be unhelpful and on occasion actively exacerbating of symptoms. For many years these approaches were pilloried and dismissed despite relatively little progress in rehabilitation using other methods. In line with other areas of psychological intervention, behaviourism took over and was followed by the influence of cognitive behavioural approaches. There was a view that the new theories of behaviourism and cognitive psychology would be more successful and provide hitherto unfound answers to the problem of treating offenders. However, this too has proved not to be the case (Furby, Weinrott, & Blackshaw, 1989). None of these interventions has provided convincing evidence about the efficacy or effectiveness of intervention.

From a more behavioural perspective, the actual behavioural manifestations of aggression and sexual violence have been examined to look at proximal triggers (for example, the availability of a victim for sexual offenders), contextual risk factors (use of alcohol or drugs) and to a limited extent, developmental antecedents (the presence of a violent parent). These approaches have been used to guide interventions. For example, one area that has dominated the sexual offender literature is the use of

behavioural methods for learning new responses to triggers to offending. Examples of this include distraction techniques; masturbatory re-conditioning; and use of aversive stimuli to modify sexual arousal. Cognitive approaches have led to methods that highlight recognising cycles of offending and developing strategies for intervening earlier in the cycle in an attempt to pre-empt the perpetrator continuing on to offending. Examples include, avoiding being in risky situations by choosing alternative routes home from work and recognising that seemingly innocuous actions like friendliness to new neighbours are part of an ongoing effort to groom children and their carers.

There has continued to be a recognition that early experience of violence, sexual abuse and other trauma are common in the histories of people who carry out sexual and violent crime. These have been addressed through counselling and other exploratory work. A common strategy in prison interventions for sexual offenders has been to refuse to respond to prisoner's own experiences of childhood sexual or physical abuse until the full extent of the prisoner's own offence history has been admitted. This has clearly been problematic as it does not allow for the development of understanding through experience and empathic realisation of the impact of offending. Also, it can lead to a very limited sense of responsibility which is almost part of a bargaining strategy rather than a shift in moral code or identity.

The treatments that have been derived from these theoretical models are known to be inadequate and yet there has been little systematic attempt to incorporate some of the important findings from the longitudinal literature into theoretical and treatment developments. Psychoanalytic theories have been largely ignored and attachment work has had limited impact on interventions. This has begun to change in the last decade, partly as the hopes for other approaches providing a simplistic answer have failed and perhaps also as awareness has increased that attachment theory actually provides a means to investigate certain phenomena systematically. In Jones, (1996) words, attachment theory allows

> "a formal quantitative means through the careful study of both non-verbal behaviour and language, to validate important hypotheses that, until now, necessarily relied mostly on unsystematic observation: the importance of the child parent relationship in the development of personality and aetiology of psychological disorder and in the cross generational transmission of psychopathology. The view of development as relationship based and the observation that the internalisation of relationship experience is the product of

interactions with parental caretakers have important implications for clinical theory and research."

Enrico Jones (1996)

The aim of this study is to use some of the quantitative and qualitative methods of attachment theory to investigate attachment and interpersonal relationships in violent and sexual offenders. The methods chosen will allow an examination of the attachment, interpersonal and dyadic domains, which are areas that have been somewhat neglected.

The work that has been carried out has tended to mix together various groups of offenders, including property and theft offences with violent and sexual offences. In this thesis, violent and non-violent offences are differentiated from other offences and investigating this specific group will be one aim of the study. There is also some tentative evidence that there may be differences in the classifications of different 'violent' groups, for example sexual violence and non-sexual violence. This is supported by clinical experience and also by the fact that different programmes are offered to these two groups of offenders in both prison and high secure hospitals. The study will also examine these two groups to identify whether differences exist in their attachment and interpersonal functioning. Hypotheses and predictions derived from the limited literature that exists will be used to test for such differences. As many violent offenders have a range of co-morbid psychiatric difficulties, the sample will be further sub-divided into those with severe mental illness as opposed to those with personality disorder alone.

Chapter 2: Violent and sexual crime from attachment and object relations perspectives

2.1 Introduction

This study presents data that gives an overview of the interpersonal and attachment functioning of a group of violent, mentally disordered offenders. They represent a sample of extreme cases and, as such, may provide important information about the relationship of early experience to later violence that may inform violence in other groups. Two different forms of violence will be investigated: sexual violence and violence without an apparent sexual motivation. These two groups are largely dealt with differently within criminal and health care systems. In prison, sexual offenders are often segregated; within the rehabilitation programme of the Home Office, programmes for treating sexual offenders are both prioritised and separate from those of other offender groups. Treatment approaches within the health service (most notably in forensic services and increasingly within medium and high secure provision) are different from those for non-sexual offenders. The response of victims (particularly women) and society to the two groups are different. This suggests that there is something different between sexual and non-sexual violence that may be open to examination and scrutiny. However, there is also some theorising that challenges the simplicity of this assumption.

This chapter will review theories of sexual and violent aggression. It will focus on those using an attachment perspective, but in addition findings from other theoretical traditions will also be noted. Contributions from psychoanalytic and object relations literature will be incorporated. There is some overlap of attachment and object relations traditions, since both emphasise the role of the child's key care relationships (mother, father), with object relations theory particularly emphasising the child's intra-psychic response to these figures.

Attachment theory was developed by John Bowlby (Bowlby, 1973; Bowlby, 1969; Bowlby, 1980) and subsequently elaborated by Mary Ainsworth (for example, see (Ainsworth, Blehar, Waters, & Wall, 1978). It draws on ideas from psychoanalysis, ethology, cybernetics and developmental psychology, postulating that early life

experiences influence development and functioning in adulthood. It contributes to the body of argument that poor attachments in childhood are related to a vulnerability to psychopathology. Following on from the work with children, current perspectives in attachment theory have promoted an interest in adult attachment styles (Main, Kaplan, & Cassidy, 1985) (Main & Goldwyn, 1991). Methods are being developed that allow the exploration of the psychological impact of internal or representational experiences of attachment and also open up methods that address inter-generational transmission of relationships. Attention is being paid to the role of adult attachment status in relation to partnerships and other adult intimate relationships. This draws on the relationship of child attachment styles to adult attachment styles and informs the literature on sexual partnerships and family relationships. Finally, attachment theory and research are beginning to have an important impact on understanding the development of psychopathology. It is this development that is of particular importance for this thesis.

The purpose of investigating attachment and interpersonal capacity in damaged populations is twofold. Firstly, it may reveal child care patterns or behaviours that are particularly detrimental to the child's development but which may with appropriate intervention be amenable to change. In so doing it may inform prevention or early intervention work. Secondly, one of the fundamental questions for both clinicians and researchers is whether the effects of inadequate attachment bonds (and the consequent behavioural, emotional and psychological problems) can be addressed later in a person's life, for example in adulthood. The assumption that this is so, underpins many different theoretical models of psychological intervention. However, the mechanisms of potential change, the relationship of many different factors operating together and whether there are critical periods for vulnerability or safety, are as yet not well understood.

Bowlby's 1944 papers movingly describe the apparent effect of key attachment related factors in the development of the young people he studied. Examples are the experience of early separation on the groups he called 'affectionless characters' and 'schizophrenic' and the consequence of 'depression' for traumatic experiences later in childhood. Work by other authors (Sroufe, Carlson, Levy, & Egeland, 1999) suggest that Bowlby's work on attachment was important for the way it provides a theory of abnormal development or pathology as well as normal development. Although it is hypothesised that early experiences lay the ground for future development, this is in a context where the complexity of the influence of other factors is recognised.

The domain of analytic theory is also important, from classical Freudian to object relations theories. This will be set out in more detail below. However, one important theme to consider here is the relationship between libido and death instinct. The distinction is potentially more complex in the context of different types of violence. For example, Glasser (1998) distinguishes between 'self preservative violence' and 'sado-masochistic violence'. In self-preservative violence there is a threat to psychic homeostasis and Fonagy & Target, (1997) have suggested that violence can be a reaction to a perceived threat that is triggered by proximity. Such proximity may leave the perpetrator aware of some loss or incapacity in relation to intimacy. These ideas are also developed in theories of marital violence which are discussed below. In a separate theoretical domain they are also linked with Fonagy and colleague's theories about reflective function, in that the perpetrator in this situation loses any capacity to 'mentalise'[1] in relation to their object[2] (in this instance, their victim). This process has been described in similar terms by Weintrobe, (1995). By contrast, in 'sado-masochistic violence' the perpetrator has a relationship to the victim albeit a perverse one. Here the violence is libidinised and becomes attached to a sexual aim. It can be described as libidinised aggression.

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[1] Fonagy, Gergely, Jurist and Target (2002) describe 'mentalisation' as 'the process by which we realise that having a mind mediates our experience of the world'. In this context it refers to the process whereby the individual loses awareness of the separate and different experience of the other (victim) and experiences them solely in relation to the function they serve for the individual themselves.

[2] 'object' is used to refer to a person or thing towards which instincts or desires of the individual are directed. Differentiation of whole or part objects will not be made in this thesis and the reader is referred to Hinshelwood (1991) for a fuller discussion.

2.2 Approaches to violence

Introduction

Considering the concern that violence generates in society, it is remarkable how little empirical work has been carried out examining the phenomenon. The work that exists focuses on partner and family violence and on work with juveniles. It may be that as the societal response to violence is more often a punitive and custodial one, there has been less interest in developing empirical approaches to investigating the phenomena or to empirically supported treatment programmes. It has also been argued (Biglan & Taylor, 2000) that this is because there is not a "widely shared cogent and empirically based analysis of the problem of violent crime", unlike for example the more successful attempts to reduce tobacco usage, where these factors exist. Perhaps this conflict arises because of a moral conflict about responding to violence. Certain violence is condoned in society, for example going to war, defending self and loved ones, and so on. The moral line that can be drawn between this and 'unacceptable' violence is more blurred than with, for example, sexual crimes, where the development of prevention and treatment programmes is much more developed. For sexual crimes the moral prohibitions are clearer and it is easier to demarcate a 'them and us' scenario that may, paradoxically, allow more tolerance for an illness model.

In fact, the work on predictors of violence set out in the introduction do show how many contributing factors are, at least in theory, amenable to change. In a paper reporting the precursors of lethal violence, (Freedman & Hemenway, 2000) the impact of family, individual, community and institutional factors on a group of people who have committed murder are described. The sample is characterised by failures of institutions (schools, mental health services, substance abuse services, and so on) to respond to explicitly known problems; the cycles of physical, sexual and substance abuse in families that continue without intervention; the barriers to access equal opportunities because of social class, ethnicity and deprivation; access to weapons; and so on. It may be that society turns a blind eye (see Steiner, 1985) to its responsibility for these problems and tries to manage its guilt by promoting a model of 'badness' of character that can then be responded to punitively. Rumgay & Munro, (2001) describe some of the professional defences that inhibit professionals intervening appropriately, notably when they feel that circumstances do not allow them the opportunity to intervene effectively in patients' interests either because of resource scarcity or because

of personal vulnerability. In addition, fears of labelling, of losing the confidence or voluntary participation of a patient sometimes leaves professionals feeling in a polarised situation in which they either fail to act adequately or they do intervene perhaps against the patient's wishes, losing the trust and confidence of their patient who comes to experience the professional or their intervention as punitive.

Interventions that have been carried out to reduce violence in men, include attempts to modify social skills, affect cognitive processing, increase empathy and so on (Serin & Kuriychuk, 1994) (Wang, Owens, Long, Diamond, & Smith, 2000) (Watt & Howells, 1999) (Reiss, Quayle, Brett, & Meux, 1998) (Renwick, Black, & Ramm, 1997). Of these, many have been carried out in prisons and high secure institutions and their effects have been measured over very short terms (a few months) in terms of reductions of anger scores on self report instruments and with some observation reports. This work is worthy in itself, but provides no data at all on the generalisability of the effects of these programmes when people return to the contexts in which they carried out the violence in the first place and the studies do not report recidivism rates. In fact, there is evidence that some interventions may occasionally increase risk by increasing social skills and therefore access, without reducing concomitant violence (Rice, 1997).

Object relations and psychoanalytic understandings of violence

In this thesis, interpersonal violence is understood as that which breaches the body boundary, intruding into and assaulting the person. Glasser, (1998) differentiates this from the 'body barrier' which is controlled by the individual and may be released by choice for intimate contact such as lovemaking, medical treatment, and so on. As Menninger, (1993) puts it "violence represents the end product of extreme anger (rage) usually prompted by an actual or threatened injury or loss, which may be real or imagined." It occurs in a context where as well as individual personality and cognitive factors, there are also factors of opportunity, environment (noise, heat), peer group, availability of weapons, substance use, and so on that contribute to whether a violent incident takes place. Many of these things contribute to our understanding of why violence occurs in relation to particular contexts, for example, during robbery, drug crime, street violence, football violence, and so on (Menninger, 1993) (Howells, Watt, Hall, & Baldwin, 1997). However, the question remains of the individual's

predisposition to violence and those individual factors that precipitate whether violent crime takes place.

Many of the attachment and psychoanalytic studies in this field highlight the importance of early deprivation, parental/maternal inadequacy and trauma (Bowlby, 1944a; Bowlby, 1944b) (Winnicott, 1992) (de Zulueta, 1993) (Steele, Steele, & Fonagy, 1996) (Fonagy, Target, Steele, & Steele, 1997c). Perhaps what they offer us that other approaches do not, are theoretical models for understanding the influence of these factors.

Winnicott (1992[1956]) describes two trends in anti-social behaviour – object seeking and destructiveness. In 'object seeking' behaviour there is some fusion of aggression and libidinal instincts and Winnicott links this to stealing, in particular a wish to recover something from the mother. However, in destructiveness, it is suggested that libido and aggression are less connected and object seeking is replaced by a greater degree of dissociation. Although intended to help understand some of the impetus for anti-social acts of children with a view to increasing understanding and rehabilitation, this differentiation adds to the foundation of the attachment work developed specifically on violence by other writers. Interestingly Winnicott also suggests that an anti-social tendency is usefully distinguished from psychosis because of the recognition by the child that some of the failure lies at an environmental level, which suggests some development of ego functioning.

In a paper describing a clinical psychoanalytic understanding of three unprovoked assaults, Sohn, (1995) describes how such patients often have a 'total intolerance for any depressive experience' and in particular he notes that experiences of loss are often denied. We can see how such a state of mind would lead to an inhibition in the capacity to symbolise and Sohn describes how when faced with some external indicator of the depression or loss that the patient has denied, the patient is left with no choice but to act out physically. As suggested above this may be triggered by proximity. Interestingly, Sohn also argues that the use of major tranquillisers (which is not uncommon with such patients) is unhelpful and sometimes dangerous as it masks the unconscious anxiety of the patient and also interferes with the fantasy world they have generated in order to try to establish some kind of psychic equilibrium.

As described above, Glasser (1996; 1998) distinguishes two levels of violence: self-preservative and sado-masochistic. Self-preservative violence occurs in the context of a 'threat to psychic homeostasis'. At one level this is familiar to us as a natural human reaction that occurs in self-defence. However, Glasser extends this by taking into account the personal and psychic vulnerabilities that affect some individuals such that they feel psychologically under threat or attack in such a way that they lose contact with an objective evaluation of a particular situation and thereby lose the normal constraints and understanding that could be applied to the situation. Glasser suggests that initially the response to the threat is to attack the 'part' that is perceived as attacking, for example the mouth if it was a comment or the eyes, if it was a look. However, in extreme circumstances this differentiation is lost and the violence is "indiscriminate", the object (person) becoming immaterial other than in presenting a danger.

In sado-masochistic violence by contrast, the violence is libidinised, is pleasure seeking and the object is therefore central to the gratification. Glasser points out how sado-masochistic violence can be transformed into self-preservative violence if the object ceases to be under the perpetrator's control and therefore becomes too threatening. However, he also sets out an argument that implies sexual violence exists within a continuum of self-preservative violence to homicide, which is less convincing. Meloy, (1999) points out that the two forms of violence that Glasser describes are essentially the same as 'affective' and 'predatory' violence which are more widely discussed in the literature. What is meant by predatory violence is that which is cold, often planned and frequently associated with 'psychopathy'. Affective violence on the other hand tends to occur in the context of high arousal or anxiety and in response to a perceived threat (Meloy, 1988).

Fonagy et al., (1997c) begin to link some of these understandings with empirical work that is developing within the attachment literature. In particular they focus on the importance of the development of a capacity for 'reflective-self function' (Fonagy, Steele, Moran, Steele, & Higgit, 1991) (Fonagy et al., 1995a) now known as 'reflective function' (Fonagy, Steele, Steele, & Target, 1997b). They argue that failures in attachment limit opportunities to develop a capacity for shared understanding and inter-subjectivity. They argue that these are essential for meta-cognitive capacity, mental representation and what they call a capacity for 'mentalising' (see above). Specifically

they argue that failure to mentalise leads to a number of problems: lack of self identity with concomitant reductions in feelings of responsibility; inadequate empathy or recognition of personal impact on others; the potential to 'dehumanise' the object; and finally "fluidity in the representation system, in which ideas are readily reconstructed and re-interpreted". They point out that in this context violence becomes more adaptive and violence itself destroys symbolic representation.

In healthy development, a certain independence, freedom of movement and thought – what Weintrobe, (1995) calls mental space - is created when the child can allow the parents to themselves move freely (in reality and fantasy) without feeling threatened by abandonment or engulfment. The foundations for this exist when the child is provided with a stable environment where its own anxieties can be tolerated and understood by the parents but where, gradually, the child assumes its own independent activity and thought. This capacity for separateness but awareness of the other is an essential element of reflective function as described by Fonagy and colleagues and is what fosters a capacity to mentalise. Weintrobe uses the concept of mental space to illustrate the problems that exist when these conditions are not met and suggests that there is a self perpetuating situation in which violence both annihilates the differentiation of subject and object and at the same time, leaves no potential for distinction and separateness necessary for recovery. In babies there is the fantasy that the mother and infant occupy the same space and in this, the infant can dispel his or her anxieties about not being safe and contained with the illusion that they and mother are one. Slowly, as the infant develops, some tolerance of separateness can be managed and the infant learns that both s/he and the mother can move independently. As Weintrobe describes, the father's potency is in his capacity to disrupt the illusion of 'sameness'. As the infant grows, this comes to be a vital factor for development (see Britton, 1989). She also argues that violence can result from suddenly feeling overwhelmed or swamped by feelings of either intrusion or absence. In this situation the object is attacked in an attempt to dispel such feelings.

In a paper presented to a scientific meeting at the Tavistock Clinic, Campbell, (1999) argued more clearly the developmental origins and different functions of self-preservative and sado-masochistic violence than in Glasser's original formulations. He defined the importance of mutual recognition and unequal complementarity in infant-mother relationships. Describing recognition as "that response from the other that

makes meaningful feelings and responses of the self", he described how, as the independence of the child develops, the child needs the mother to recognise the increase of anxieties and to intervene appropriately. Disturbed mothers (for example those with borderline personality organisation, psychosis or depression) respond to the child on the basis of her needs rather than the child's. Campbell suggests that if the mother does not intervene, core primitive anxieties about survival can trigger aggression. These ideas are discussed in relation to capacity for mentalisation by Fonagy & Target, (2002), who cite some empirical support for work in this area by Meins and colleagues in which objective assessment of the mother's capacity to interpret her baby's mental state was associated with attachment security in the child six months later.

Campbell uses Glasser's ideas of the 'core-complex' (Glasser, 1988) - the merging that involves a fear of annihilation and the conflict of engulfing/starving. He says that developmentally speaking the "ego's first line of defence is self preservative aggression". It is triggered by danger and other threats to psychic homeostasis. He then goes on to argue that when the object that has provoked the anxiety/danger is the same as the one that the infant needs for survival (i.e. the mother) then the solution is the libidinisation of violence and self-preservative violence is converted to sado-masochistic violence. The relation to the object is then to preserve it, not to eliminate it. Campbell suggests therefore that sadism offers the child "a second line of defence".

One of the problems with this argument, as with Glasser (1998), is that the distinction of self-preservative and sado-masochistic violence is somewhat blurred. Clearly it may be possible for an individual to experience both, and the shift from sado-masochistic violence to self-preservative violence in homicide is a cogent possibility. However, it is also possible that babies who have inadequate mothering may, in adulthood, go on to commit violent acts that do not appear to have a sexual or pleasure gratification to them. Perhaps there are key differences in the type of mothering involved. For example, over involvement and intrusion may have a different effect from neglect.

Campbell also illustrates the way in which a form of sado-masochistic aggression is part of normal development, for example in the form of provoking pain and or frustration. This can be observed in hide and seek games, tickling games, and so on. In these games recognition is controlled and the 'good enough' mother knows when to

appear or when to desist from tickling. In this way the child can survive both proximity and separation. Campbell points out that in sado-masochistic relationships, the masochist is needed by the sadist for recognition. In these scenarios, continuation and potentially even survival are retained by the person in the masochist position neither retaliating nor retreating. It is possible that the move from sado-masochistic violence to self-preservative violence occurs if the fear of the masochist becomes evident. Here, the control of recognition is disrupted and it is possible that the sadist sees in the masochist 'his' own fear, which becomes terrorising and prompts a need to attack the threatening object, leading to self-preservative violence and potentially lethal assaults.

Psychoanalytic understandings of the impact of parental figures are supported by work in the attachment field. Levy & Orlans, (1999; 2000) set out the factors that contribute to severe attachment disorder in children, including family conflict, rejection and violence, multiple care-givers and so on. They describe the way the neglected and abused child begins to have behavioural problems with a lack of capacity to respond to stressful situations and an increase in aggression. In particular, they link these problems to the rise in the numbers of children committing violent crime. Some of these ideas are also set out by de Zulueta, (1993) in a volume that describes the importance of experience of neglect and trauma on subsequent violence. Like other authors, de Zulueta draws on ethology, anthropology and comparative psychology to build a picture of the foundations of violence. She describes early primate work that demonstrated both emotional, social and neurological consequences of neglect and abuse where young primates had few resources to care for themselves and others and where aggression, and sometimes violence became more commonplace as a consequence of the neglect. She uses this as a basis for understanding the human picture. The evidence presented in such work is theoretical and observational. Fonagy et al., (1997c) also set out the various cognitive, social, genetic and environmental factors that contribute to delinquency and the cycles of interaction that perpetuate them and they present some of the research evidence that supports this. For example, children with early conduct problems who are rejected by their peers often attribute aggressive motives even when other children are behaving normally.

Although we know that a significant proportion of children and adolescents who are delinquent will desist from this behaviour in adulthood, there is a steady increase in the amount of evidence that supports the importance of insecure attachment patterns as a

key factor in people who commit violent crime. The development of the Adult Attachment Interview (AAI) and related instruments also allows us to look at the attachment capacities of adults and allows a consistent approach to rating their descriptions of their experiences of their parents and key attachments. This work opens up the possibilities for retrospective approaches to complement prospective ones.

Fonagy et al., (1997b) note how attention to early experience has received limited attention by criminologists and they then describe a study of adult attachment in a population of prisoners. This work was also described by Levinson & Fonagy, (1999). In this study, twenty-two prisoners were examined for their adult attachment capacity and their capacity for reflective function and compared with patients with personality disorder and normal controls. As expected more of the prisoners and patients had insecure classifications than normal controls. More prisoners scored on dismissive styles of attachment than the patients who were more likely to be pre-occupied/entangled. The prisoners also yielded a higher number of transcripts that could not be classified (32%). The prisoners are reported as experiencing greater amounts of abuse than the patients. Eighty-two per cent of prisoners reported abuse, of whom 64% had been abused physically and 18% sexually. This contrasts with the patient group, of whom 41% were reported as being abused, 36% physically and 5% sexually. The more violent prisoners scored lower on reflective function than the less violent prisoners. There were fewer instances of unresolved losses or traumatic experiences in the prisoners sample (36%) when compared to the patients (59%) but this difference does not achieve significance and was understood by the authors not as demonstrating a capacity for resolution, but as evidence (with the reflective function scores) for a lack of mental representation which means that such experiences are 'disavowed', possibly resulting in offending rather than true resolution. They suggest that these low reflective function scores are indicative of a lack of capacity for empathy.

This last claim will obviously need to be substantiated as, for example, Goldstein & Higgins-D'Alessandro, (2001) found that after aggression was controlled for there were no differences in scores on empathy or attachment for violent offenders, non-violent offenders and controls. In their study Goldstein et al., (2001) compared affective empathy and cognitive empathy as measured on the Interpersonal Reactivity Index, expecting lower affective empathy scores in offenders. In fact there was a trend in the

opposite direction. This study also used a deconstructed version of Hazan & Shaver's, (1987) attachment measure, in which they broke the vignettes down into thirteen individual sentences. No differences were found between the violent offenders, property offenders and controls on mean scores for security of attachment or mean scores of specific attachment classifications.

Psychoanalytic writers have associated the role of the father with violence. One example of this exploration of the role of the father can be found in Fonagy & Target, (1995b). This paper is important in that it is one that attempts to expand thinking about the cycle of violence beyond the limitations of sociological, behavioural and developmental theory, to attend to some questions unanswered by those approaches. They suggest that psychoanalytical thinking on aggression has been distracted by the question of innate versus environmental influences. They make clear their view that "aggression is biologically rooted, but arises in response to perceived threats to the psychological self" and that these processes can also occur in people who have an apparently benign background, in that 'violence' to the child's psychological self is much more subtle and hard to identify except within the setting of a close personal encounter such as a psycho-analysis. They go on to suggest that the gender differences in direction of violence relate to the issue of same vs. non-same parent and they then develop this idea both in relation to the use of the body and the role of the father. They suggest that there is a situation in which mothers' thoughts have been more "intersubjectively experienced earlier and are probably represented within the child's mind. The father's thinking is .. represented .. as external. The intolerable mental presence of the same sex parent would then be felt to be inside the woman's mind, but outside the man, in other people or in objects that represent the father". This line of thinking is commensurate with the current view that women's violence is more likely to be self directed (or directed towards children or dependents) whereas men's is more likely to be externally directed. Empirical support is also available for the specific and greater influence of the mother in subsequent development of psychopathology (Enns, Cox, & Clara, 2002). Using data from the US National Comorbidity Survey they examined a range of parenting variables and concluded that lack of parental care is consistently associated with adult mental disorder and that this association is stronger for mothers.

Further work looking at specific comparisons in the attachments of sexual and non-sexual violent offenders will be described in the final section of this chapter comparing these two groups.

2.3 Approaches to sexual deviance

Introduction

In recent years, there has been increasing attention paid to the painful and traumatic consequences of sexual assault. One way of addressing prevention work in this process is to try to understand the aetiology of sexual offending and also investigate the effectiveness of treatment of people who sexually offend. A number of models have been developed to describe the aetiology of sexual offending and these have been complemented by the development of treatment initiatives. These models and interventions have largely been based on cognitive behavioural theories that particularly address: inappropriate cognitive distortions; behavioural manifestations of problems; issues of control; and the social skills of offenders. These approaches have obviously been of importance in our attempts to reduce sexual offending and they have been widely applied in custodial and clinical settings but their efficacy is very difficult to establish. Furby et al., (1989) reviewed the relationship of sex offender treatment to recidivism and demonstrated the difficulty in establishing the efficacy of clinical treatment in reducing re-offending. They also highlighted the difficulty of carrying out thorough research with sexual offenders, for example, in getting adequate or accurate follow up data. Although Marshall & Barbaree, (1991) and Marshall, (1994) offer a more optimistic view of the utility of existing research, calling for a more pragmatic and far reaching understanding of treatment effectiveness and the concept of positive change, there is no doubt that our treatments are limited in their effectiveness. In this context we need to ask what other factors can complement the work that is already being done and what are the processes of the development of sexual offending that we have so far paid insufficient attention to.

The work that has been done on sexual deviance and sexual offending, both in terms of theory and the development of treatment options are more extensive than the work carried out in the sphere of violence. The early psychoanalytic interventions were, when unsupported by complementary interventions in other theoretical models, found to be limited in their effectiveness in the 1960's and 1970's and they were replaced with behavioural and cognitive interventions. Similarly, these have been found to be of limited value (see for example, Grossman, Martis, & Fichtner, 1999, Marques, 1999 Nagayama Hall, 1995), particularly behavioural approaches alone, and there has been a move towards a more integrated treatment approach in the last years that addresses both

the affective as well as the cognitive disturbances of sexual offenders (Marshall, Laws, & Barbaree, 1990) and (Laws, 2000).

Attachment and object relations perspectives

This section will introduce the ideas from work in the field of psychoanalysis and attachment work that are relevant to this thesis.

Fairbairn, (1952a) suggests that ego development is dependent on the existence and maintenance of relationships with others and that people actively seek emotional contact with others. He does not follow the same stage development as Freud, rather he suggests that development involves the movement from infantile dependence to mature dependence in adulthood. This takes place by a move from identification and internalisation of the object to a situation where dependence is on an object which is differentiated from the subject. He suggests that the 'analyst's' task is to force him/herself into the inner world of the patient, to allow a new beginning that provides experiences that were not available to the person in childhood.

In an article originally published in 1946 (Fairbairn, 1952b) Fairbairn specifically addresses the issues of the treatment and rehabilitation of sexual offenders. In this article he advises against seeing sexual perversions or offences as 'symptoms', for example of 'psychoneurosis' and suggests rather that they should be seen as integral components of a personality that has become perverse in its structure. This may, at first, seem a somewhat depressing view and the resistant nature of some sexual perversions and of sexual offenders to treatment might present some immediate support for this. However, there are a number of clinical groups who we find resistant to treatment and it is by expanding our understanding of the nature of their psychopathology and experience that we can begin to offer alternative theories and treatments to mediate their distress or behaviours. It is possible that an understanding of the relationship of both the interpersonal domain and attachment with the development of personality disorders (which we know intensify resistance to treatment) will facilitate this. Indeed, with regard to sexual offenders, Fairbairn goes on to promote the idea of rehabilitation of the person in 'the sense of psychologically controlled cultivation of his social relationships within a group characterised by an active social life in which he can participate'. As well as advocating this 'community' related approach, Fairbairn also promotes the idea of the importance of

group therapy where members can be confronted with the implications of their own behaviour and the significance of their attitudes. These ideas are very similar to some of those advocated today.

Glasser, (1988) distinguishes what he terms primary paedophilia (where there is a central perversion) from secondary (in which polyperverse sexual activity takes place in relation to psychotic and disintegrated personality condition). In primary paedophilia, Glasser describes a constant interest in children that replaces any developmentally appropriate interest in adults. He says that 'pseudo-neurotic' paedophiles may have some relationship with adults, but these are often accompanied by impotence and sexual intercourse is often achieved by accompanying paedophilic fantasies. In this group, Glasser suggests that there is rarely any genuine shame or guilt. Glasser sees this condition as being identified with what he calls the 'core-complex'. This is a wish to form an intimate, everlasting union which is however accompanied by a terror of being taken over and annihilated. There is a cycle of withdrawal (from the anxieties of annihilation) to proximity seeking. The move that Glasser sometimes describes from sado-masochistic violence to self-preservative violence can also be seen in this cycle.

Cognitive and behavioural approaches and the move to integrate attachment theory.

Turning to the other literatures, Fisher & Howells, (1993) describe the prevalence of social skills deficits in sexual offenders and the difficulties many offenders have in establishing and maintaining longer term intimate relationships. They cite cognitive components, problems in empathy and inappropriate culturally induced expectations as the parameters for the problems. Marshall in a key article in 1989 (developed in Marshall, 1993) begins to stretch the thinking of the dominant cognitive approach with sexual offenders to include issues of intimacy and attachment. In these papers he draws on the social psychology literature to describe the ways in which sexual offenders develop poor skills in relationships. He acknowledges that behaviour therapists have been slow to recognise the importance of close personal relationships in the development of disordered behaviour and suggests that this will be an important area to pursue for the future. In acknowledging the importance placed on parent/child relationships, intimacy and so on in other theoretical approaches (for example, psychoanalytic and psychodynamic, personal

construct psychology, humanistic) he suggests that it is possible that individuals who have failed to develop secure attachment bonds in childhood will show similar problems in adulthood, and in doing so, he begins to explore the importance of attachment. He suggests that such poor attachments, coupled with loneliness and an inability to establish intimacy in relationships may, when linked with other factors, begin to illustrate why some people develop as sexual offenders. For example, links can be made with the fact that many men and women who sexually assault children were themselves abused in childhood.

Marshall goes onto develop these arguments and put greater emphasis on the role of attachment in subsequent papers (Marshall, Hudson, & Hodkinson, 1992) (Marshall et al., 2000). In these papers he suggests that poor attachment is related to lack of empathy for others, low self-confidence and objectification of other people. He suggests that emotional loneliness is related to aggression and a self-serving lifestyle and he develops these arguments in an understanding of sexual offending. The difficulties that sex offenders experience in achieving empathy are well described. There is some evidence that children with secure attachment styles exhibit more empathic responses in their relationships with others. This draws us again to the question of the relationship of early attachment and adult attachment style with the breakdown of relationships, social taboos and personal inhibitors that function to promote sexual offending.

As well as general statements about the difficulties that sexual offenders may experience, there is also some evidence that makes some differentiation between more and less aggressive sexual offenders and the types of aggression used. Meloy, (2000) describes the dynamics of sexual murder. Although sexual murders are only a small proportion of the total numbers of murders committed, he suggests that they can largely be classified into two groups. In the first, the offender is likely to have psychopathic traits and is organised and 'compulsive'. These murders are planned purposeful, often with a repeated pattern to the offences. The second group are more chaotic and the offenders often have mood disorders and personality disorders. He describes them as more 'hungry' for attachment. Lisak, (1994) describes a study in which more violent sexual offenders are shown to have a more problematic relationship with their fathers than non-aggressive sexual offenders.

2.4 Adult attachment style in sexual offending and violence

Introduction

An overview of work that has been carried out looking at the importance of adult attachment style and both violent offending and adult psychopathology will be set out below. A full description of the measure of adult attachment used in this thesis, the Adult Attachment Interview (George, 1985), (Main et al., 1991) will be given in Chapter 6. However a brief summary of the domains of interest that are revealed by measures of adult attachment may be helpful in terms of integrating the work that has been carried out to date. This work provides the foundation for the hypotheses for this study. The theoretical basis for measuring adult attachment is that people can be differentiated in whether their attachment capacity is autonomous and somewhat resilient to stress (known as secure) or whether it is more prey to the need for types of functioning that defend the sense of self against perceived threats to autonomy, particularly when under stress (insecure).

Derived from work on the strange situation methodology (Ainsworth et al., 1978) the specific nature of insecure functioning has been described both in terms of dismissive (D) responses vs. pre-occupied or entangled (E) responses and also in terms of anxious-ambivalent (similar to pre-occupied/entangled), avoidant (similar to dismissive), fearful and disorganised responses. Broadly these reveal two domain of attachment functioning that either distance the self from attachment figures (dismissive, avoidant) or demonstrate the very different approach of becoming over-involved in describing attachment situations in such a way, that it is difficult to for the person to disentangle themselves from their memories, attitudes and involvement with attachment figures. It may also be important to note that the "fearful avoidant" category in the Griffin and Bartholomew measure (Griffin & Bartholomew, 1994) does not have a direct category link in the AAI and may be more associated with an adult learnt response to the Strange Situation anxious-ambivalent. This needs further investigation.

In addition, some attachment systems describe a particular range of phenomena that suggest disorganisation or disorientation with respect to attachment. Where this is specific to a particular loss or trauma, it is defined as 'Unresolved' in the Main and Goldwyn classification system. Where there appears to be a more global breakdown of

a systematic capacity to function in relation to attachment, the term 'Cannot Classify' has been used. These indicators for disorganisation or disorientation have been found to be more common in clinical and offender populations.

Recently, Fonagy et al., (2002) suggested a two axis reformulation of attachment theory that is based on the dimensions of 'secure-fearful' and 'dismissive-preoccupied'. They argue that whilst the former dimension differentiates patients, clinical groups and psychopathology, the latter one (dismissive-pre-occupied) one does not. This approach will be discussed in more detail in Chapter 12.

A comprehensive summary of the different methodologies and measures used in this field can be found in Crowell, Fraley, & Shaver, (1997). It is somewhat sobering however, that they find very low correlations between instruments and conclude that different measures of adult attachment cannot be substituted for one another. They say that measures should be used for the context in which they were developed and may be relationship specific.

Adult attachment style and sexual offending

There are a series of papers specifically looking at the attachment style of sexual offenders. Most of these do not use the Adult Attachment Interview (George, 1985) which is probably the best of the instruments available but is extremely resource hungry. The main instruments that are used in work in the forensic literature include ones by Feeney, Noller, & Hanrahan, (1994), Bartholomew & Horowitz, (1991), Griffin et al., (1994) and Hazan et al., (1987).

Ward and colleagues have carried out a number of studies looking at the attachment classifications of sexual offenders (Ward, Hudson, Marshall, & Siegert, 1995) (Ward, Hudson, & Marshall, 1996) (Hudson & Ward, 1997). These produced somewhat contradictory results. The early paper uses Marshall's 1989 invited essay as a foundation for developing a theoretical model that integrated the known difficulties with intimacy with an attachment approach to an empirical investigation of this. They use Bartholomew et al.s, (1991) attachment categories to underpin an attachment model and link this with a conceptual understanding of intimacy (and its deficits) and of interpersonal goals and strategies. In doing so they extend Marshall's work and

hypothesise the following attachment relationships: Anxious-ambivalent attachment responses will be more common with child offenders (non-coercive); Avoidant I (fearful) will be more common in secretive voyeurism, passive exhibitionism, child offending against strangers, instrumental coercion; and Avoidant II (Dismissive style) more common with greater sexual aggression, intrusion and sadism. This differentiation of avoidant styles into fearful and dismissive is judged to be important. This is a theoretical paper that sets out the arguments for particular expectations with regard to the attachment functioning of sexual offenders. These hypotheses are tested to some extent in their later papers, though with somewhat contradictory results.

In their study in 1996, Ward and colleagues (Ward et al., 1996) they predicted that sex offenders would be insecurely attached, that rapists would be more likely than child offenders to be dismissively attached and that child offenders would be more pre-occupied and/or fearfully attached than rapists. When these groupings are compared with the hypothesised associations in the earlier paper, it can be seen that implicit in these predictions is the idea that rape involves more sexual aggression. In addition non-coercive child sexual offending and other child offending (with strangers and with instrumental coercion) are collapsed into one prediction. The groups were compared with non-sexual violent offenders and controls (see section comparing sexual and violent offenders below). In this study they used the relationship questionnaire (RQ) and the relationship scales questionnaire (RSQ) (Griffin et al., 1994). The Relationship Questionnaire consists of four short paragraphs describing prototypical attachment styles and the subject is asked to choose the one that is most like them and then rate themselves on a seven point scale (not at all like me to very much like me). The RSQ is a 30 item self report questionnaire that asks respondents to rate on a five point scale. This provides scores on four separate subscales called secure; fearful; pre-occupied and dismissing. There were no differences on the RQ between the groups on secure, fearful, or dismissing ratings. However, child offenders scored higher than non-violent offenders on the pre-occupied ratings. On the RSQ, there were no differences between the groups on security of attachment. Child offenders were more pre-occupied than the other groups, apart from rapists where there was no difference found. Also child offenders were more fearful than non-violent offenders. Rapists were significantly more dismissing than child offenders and non-violent offenders. What are common to these two sets of results are the elevated scores on the pre-occupied classification for child sexual offenders when compared to non-sexually offending groups.

In 1997 Hudson et al., the authors applied this model to a group of incarcerated sexual offenders (n=85). They make some comparison with non-sexual violent offenders which will be discussed below. They suggest that the nature of the attachment insecurity will depend on the nature of relationships able to be developed by the offender, rather than offender type. They look at range of variables including: loneliness, fear of intimacy, anger, and hostile-abusive attitudes towards women. In this study they found no significant differences between the groups for loneliness or fear of intimacy, for hostility to women or rape myths. On the State-trait anger expression inventory (STAXI) (Spielberger, 1988) they found no significant differences on state anger, or the subscales for expression or suppression. However there were some significant differences on the trait subscale with rapists reporting higher levels of anger than the child offenders. This study did reveal differences relating to attachment style on the other measures with rapists reporting more dismissing responses and child offenders more pre-occupied. These will be reported in detail in the section comparing sexual and violent groups below. In their conclusions they highlight the importance of needing to know whether the links between key variables like loneliness and attachment type are mediated by offender type or by other factors. This is important as many treatment decisions are made according to offender type and are based on assumptions of commonality derived from offending style.

Marshall and colleagues have addressed some specific issues in relation to the influences on child molesters. Marshall & Mazzucco, (1995) looked at parental attachments and self esteem. They had relatively small groups (non-familial child sexual offenders, n=24; controls, n=23). The child molesters reported more childhood sexual abuse and lower self esteem. In a multiple regression analysis which examined what factors best predicted low self esteem scores, maternal rejection was found to predict low self-esteem than controls. Obviously the numbers in this study are low, but the results contribute the arguments for the importance of early attachment experiences as being influential in the developmental paths of sexual offenders.

Marshall, Serran, & Cortoni, (2000) looked at the effects of attachment style and sexual abuse on coping in child molesters (n=30), non-sexual offenders (n=24) and non-offenders (n=29). They used the Childhood Attachment Questionnaire (Hazan et al., 1987) and all subjects reported greater attachment security to mothers than fathers. A

greater number of the groups of child molesters reported being abused, with increased force and consequent distress than the non offenders, with the non sexual offenders lying in between. The other difference found was that child molesters used more emotional coping strategies (which are judged to be less effective than problem solving or avoidance) than the other groups.

Sawle & Kear-Colwell, (2001) use the Attachment Style Questionnaire (Feeney et al., 1994) and compared paedophiles (n=25) with non-offending male victims of sexual assault (n=22) and mature distance learning university students as controls (N=23). The sexual offenders scored significantly higher than the other two groups on insecure attachment and also on one of the sub-types of avoidant attachment: 'relationship as secondary'. The sexual offenders also had significantly shorter adult sexual relationships and experienced more abuse and neglect in childhood than the controls, with the victims of sexual assault scoring lower than the offenders but significantly higher than the controls.

Smallbone & Dadds, (1998) looked at both childhood and adult attachment in adult male sex offenders. They also used the Childhood Attachment Questionnaire (Hazan et al., 1987) the RSQ (Griffin et al., 1994) and also included an attachment history checklist. The study compared adult sexual offenders (n=48) with property offenders (n=16) and non-offenders (n=16).

Although theoretically they had expected continuity between childhood and adults attachments, this was at best only moderately correlated. Secure attachment to mother in childhood was moderately correlated with RSQ of secure adult attachment ($r = .35$). Anxious and avoidant attachment to mother in childhood were moderately correlated with anxious (.35) and avoidant (.28) in adulthood respectively. None of the paternal styles predicted attachment style.

Sex offenders reported less secure attachments to mother, father and in adulthood than non-offenders. This was maintained when sex offenders were compared with non-sex offenders for maternal childhood attachment, but not for paternal or adulthood attachment. Hypotheses that the child offenders would report more anxious attachment and stranger rapists more avoidant was not supported. However, child offenders were more likely to describe their mothers as unloving; unresponsive; inconsistent; rejecting

Some years later, West et al., (1999) suggested that simple classification of insecurity is inadequate to help us understand partner violence, particularly as many people who are insecure in their attachments do not have violent relationships. They use some of the developments in the field of attachment classification to argue that the role of 'disorganisation' is more helpful with this group. Disorganisation specifically arises out of childhood attachment strategies and describes a kind of 'disorientation' with respect to attachment. It can be understood to link both with the Unresolved classification in Main's system which describes *specific* disorientation in respect of loss or trauma or with the 'cannot classify' group which Hesse, (1996) describes as exhibiting a more *global* disorientation.

West et al., (1999) focus on the importance of the disorganised individual (child in their theorising) trying to use various strategies to control their 'object' (intimate other) including the more labile angry control or the use of domination. These strategies can be linked with involving anger and derogation in the Main classification system (which are each very strongly associated with a different sub class). The existence of substantial examples of *both* of these features in an AAI transcript leads to a CC allocation.

Holtzworth-Munroe, Hutchinson, & Stuart, (1994) report a high number of Cannot Classify transcripts (37%) in their sample of 60 male batterers, with the figure rising to 47% for those 15 men actually arrested for marital violence. This last group are likely to have been more violent by virtue of their arrests.

Finally, Mauricio & Gormley, (2001) using the Bartholomew et al., (1991) measure found high levels of insecurity (collapsing the categories) in maritally violent men. However, they also found that low scores on social desirability and high scores on dominance *with* insecure attachment predicted more frequent violence.

These results raise the question of whether sexual violence will yield similar results in terms of high U and CC scores when it arises in non intimate relationship as when it occurs in an intimate relationship. If so, then it may be the sexual involvement and violence combined that that is correlated with disorganisation. If not, then the role of intimacy may be of particular importance. As none of the sexual offending group in

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the present study have index offences against their marital partners this is a question we can explore further.

Adult attachment style and comparisons of violent and sexual aggression

Differentiating between sexual and violent aggression is a key feature of this study. However there is limited theoretical material to date specifically addressing this area and that which exists, is at times unclear. Bailey, (1997) and Hawkes, Jenkins, & Vizard, (1997) describe the antecedents of violence and sexual violence in adolescents respectively, noting again the importance of insecure attachments, early experience of abuse and neglect. However, little clear differentiation between the two groups emerges.

Comparisons between sexual and non-sexual but violent offenders have tended to be less theoretical and more empirical. Deriving some factors from psychoanalytic principles, Meloy and colleagues have carried out a number of investigations of these two groups, using Rorschach protocols and looking at psychopathy and sadism. In a study in 1994, Meloy, Gacono, & Kenney, examined Rorschach protocols of sexual murders (n=18) and compared these with violent (but non-sexually offending) psychopaths. Responses were classified using an established scoring system. Perhaps the most significant difference was in the total number of reported responses which was much higher for the sexual murderers when compared to the psychopaths (almost two standard deviations greater). There was some diversity of responses in the sexual murderers, for example, there was evidence of attachment capacity in some responders (n=7) and of affectional hunger in others. This contrasts with only two of the psychopaths expressing attachment capacity and none expressing affectional hunger. None of the other psychopaths scored on attachment responses, suggesting detachment in this domain. The majority of both groups were therefore abnormal on attachment responses. The sexual murderers also differed from the psychopaths by virtue of elevated scores on responses that are interpreted as demonstrating unmet instinctual need states, and a greater number of responses that included human content and 'co-operative movement' suggesting more object related capacity. Both groups provided elevated scores on measures of thought disorder; characterological anger; pathological narcissism and self aggrandisement.

One of the problems with this study was that there were not measures of psychopathy for the sexual murderers. This was addressed to some extent in another paper (Holt, Meloy, & Strack, 1999). Here, the authors looked at psychopathy and sadism in a group of sexually violent and non-sexually violent prisoners. The two groups (sexual violence and non-sexual violence) were further divided into those who scored above the threshold for psychopathy and those who scored well below and were not judged to be psychopaths. As expected, both of the psychopathic groups scored significantly more highly on sadism (as measured on the Millon Clinical Multi-Axial Inventory and also on the items of the Personality Disorder Examination that relate to sadistic personality disorder) than the non-psychopathic groups. However their hypothesis that the sexually violent psychopaths would score even higher than the violent group was not supported. Whilst it may be that there was not sufficient differentiation between the two groups to elicit such differences if they exist, it should also be considered that there are real differences in the elements of sadism that elicit pleasure through the infliction of cruelty, domination or pain and those that specifically require sexual arousal or activity. The questions in this thesis, concerning the differences between the factors associated with sexual and non-sexual violence, will not answer these questions specifically, but may throw some light on them in more general terms.

A further paper (Gacono, Meloy, & Bridges, 2000) compared Rorschach responses of psychopaths (with criminal histories of violence), sexual murderers and non-violent paedophiles. This paper builds on the work in 1994 (Meloy et al., 1994) by including a non-violent sexual offending group. As a group, the paedophiles were older and had received more years of education than the other two groups. The psychopaths were more likely to be single. With regards to the Rorschach results, Gacono et al.,(2000) described the differences which they found in the three groups. They suggested that the picture of the violent group that emerged from the results, which indicated both detachment and 'obliteration' of capacity for attachment was more characteristic of D (dismissing) adult attachment patterns. As with their previous study, non-sexually offending psychopaths' protocols were marked by detachment. Interestingly this was not true for the sexual murderers, despite having psychopathic traits. Gacono et al., (2000) argue that the sexual deviance 'disrupts' their psychopathic expression. They suggested that this group were more prone to obsessional thought and an irresistible pull to others - perhaps mediated by their sexual deviance - but also a distance due to self-centredness. With 'cognitive slippage' these findings led the authors to suggest

that they may be representative of a 'disorganised' group in attachment terms ('disorganised' is related to 'cannot classify' and 'unresolved' classifications). Finally the paedophiles also showed abnormal attachment, and the authors suggest that the results can be seen as overlapping with anxious/ambivalent or pre-occupied styles for the paedophiles. All groups are characterised by pathological narcissism and thought disorder. The sex offending groups show more dysphoria, with the sexual murderers showing more obsessional thinking and the paedophiles more characterological anger and passive opposition than the other groups.

Other work in this area has produced some equivocal results. In one of a very few papers about attachment and sexual offending and violence, Jamieson & Marshall, (2000) compare incest offenders (n=20), non-familial child molesters (n=20) non-sexual offenders (n=20) and a community sample (n= 21). They found that stranger abuse was associated with fearful avoidant categories on the Griffin et al., (1994) Relationship Questionnaire when compared with secure community group. Incest offenders did not differ from the community group. However, as they had few respondents on the pre-occupied attachment category they excluded this group from their analyses. When violence was looked at, dismissively avoidant offenders used a greater level of violence. Their results therefore differed from work by Hudson et al., (1997) who reported that rapists were more likely to display dismissive attachments and that child molesters were pre-occupied.

What we see from the above evidence is that there is a lack of clarity about the differences between groups and as yet, no clear and consistent pattern emerging. These studies have been carried out on self report measures and are subject to a non-objective rating which may be affected by the extent to which the offender participants have been involved in self awareness treatment programmes. What we do begin to see from these studies is that violence is associated with a more dismissive stance. However, the attempts made to tease out violence from sexual motivation are as yet largely inadequate. Although it might be argued in this study that all offenders demonstrating violence will score highly on the dismissive rating regardless of sexual motivation, the basics of attachment and interpersonal theory suggest that this might not necessarily be the case and that the greater *involvement* with the object in sexual aggression will show a different outcome. Further down the line, as suggested above we might expect to see crimes such as torture and rape occupying a middle ground where both dismissive and

fearful elements are present. Firstly, we need to try and establish whether there are trends that emerge (or not) for each offence group.

The Ward et al., (1996) study, sets out some of the 'characterological' differences in relation to offenders, suggesting that there is a major innovation in the distinction of two types of avoidant attachment: fearful and dismissive. They used the relationship questionnaire (Griffin et al., 1994) and the relationship scales questionnaire (Griffin et al., 1994). They specifically differentiate between different types of sexual offenders, predicting that sex offenders would be insecurely attached; that rapists (n=30) would be more likely than child offenders (n=55) to be dismissively attached and that child offenders would be more pre-occupied and or fearfully attached than rapists. Violent non sex offenders (n=32) they predicted to be insecure and dismissive. On the Relationship Questionnaire the authors examined both the reported percentage ratings for each group on the attachment sub-type and also examined whether any significant differences existed between groups. On the first, they noted that child sexual offenders reported being more fearful and less dismissing than expected frequencies and violent offenders were less secure and more dismissing than expected frequencies. No significant differences were found between the groups on secure fearful or dismissing ratings. The child offenders scored higher than non-violent offenders (n=30) on pre-occupied classification. Reports of insecure attachment were as follows: non violent, 60%; violent, 90%; rapists, 67%; and child offenders, 78%. On the RSQ, no differences were found in relation to presence of secure attachment. Child offenders were indiscriminable from rapists but more pre-occupied than violent and non-violent offenders. On the fearful dimension, child offenders and violent offenders were more fearful than non-violent offenders. Rapists and violent offenders were significantly more dismissing than child offenders and non-violent offenders.

In a somewhat limited study Liell, (2001) specifically attempted to find differences between sexual and violent offenders. Contrary to their hypotheses however, they found no differences in their groups on the Griffin and Bartholomew attachment measure they used.

The very few studies that exist using the Adult Attachment Interview do not differentiate between sexual and non-sexual violence. As described above Levinson et al., (1999) did find a high proportion of cannot classify transcripts, a higher rate of

insecure transcripts when compared to normal controls, more dismissive transcripts in the offender group when compared to patients and lower reflective function in the more violent offenders. Ross & Pfafflin, (2001) (submitted) looked at a group of violent offenders (mixed) and compared them with a sample from a religious community and a sample of prison officers. Interestingly, the offender group showed greater attachment insecurity. However, they did find about 30% secure in this group, which is higher than would be expected for clinical populations and about what would be expected for low social economic groups. This violent group included a number of non interpersonal offences including property crime and arson and the heterogeneity of this group and the fact that their crimes may not indicate specific interpersonal limitations may partly account for the results, though the authors do not discuss this. The rating system they used focuses less on the discourse analysis of the AAI and more on behavioural representations of attachment reflected by narrative content. Of the insecure classifications in their comparison groups, the prison officers were slightly more insecure dismissing and the religious community members were slightly more mixed insecure or insecure ambivalent.

Van IJzendoorn et al., (1997) published the first article on use of the AAI with mentally disordered offenders. Interestingly, for the purposes of statistical methods, they constructed a continuous AAI insecurity scale based on differential weighting of the classifications. They were looking at the attachment representations as well as personality disorders in the group and they also recorded patient interactions with staff. Age and previous psychotherapy made no difference to AAI classifications, however child-rearing history did; for example, separations from important care figures in childhood were related to both insecure attachment and personality disorder. Van IJzendoorn et al., (1997) note that they judged that pre-occupied subjects appeared more disturbed clinically that dismissing ones. It is also of note that Unresolved and Cannot Classify categories were over-represented in the sample (53% when merged) with almost no secure representations (5% which is equal to two patients).

Work in the field of sex offending has, in the last few years begun to investigate the importance of relationships, difficulties in intimacy and loneliness in adults using a variety of methods but little work has been done with violent offenders. There are drawbacks with all the methods used with offenders, for example one of the questionnaires simply consists of a short paragraph that is judged to prototypically

represent each of the attachment groups. The subject chooses the paragraph that most represents their view of themselves. Obviously there are problems with this approach; it is a simple approach without corroboration or independent judgement. It does not allow for examination of the response to loss and trauma as the Unresolved classification in the Adult Attachment Interview does and it does not allow for a Cannot Classify category, which may be of central relevance to such a disturbed population. In addition to these limitations, the measures do not allow for further work on micro analysis of factors that may differentiate the groups. Factors that for example, may be revealed in qualitative analysis and content analyses of the transcribed AAI. Considering this (and the numbers involved) it is not surprising that differences did not emerge clearly in the classifications. The conclusions drawn by (Ward et al., 1996) that attachment differences are unrelated to offending type may well turn out to be the case, but as yet are premature. The relationship of insecure and unresolved classifications to severely disturbed groups means that large numbers would be required to establish group differences if, indeed, they do exist. However, the full adult attachment interview allows for a more "micro" analysis of data, such that medium sized effects between groups may be seen if they exist.

2.5 Adult attachment style and personality disorder and severe mental illness

As described, this thesis will examine factors that are central to attachment and object relations theories in order to comment on the situation of mentally disordered offenders in general and to investigate any differences between two specified forms of violence; sexual and non-sexual. The different levels of methodology that will be used allow for some examination of the fundamental distinction of internal representations of relationships that operate in unconscious domains of awareness as well as those that operate in the conscious realm (primary and secondary process).

As well as this key distinction, it is also recognised that the nature of the clinical psychopathology of participants may be an important factor in distinguishing between groups. The literature describing people who commit serious violent crimes of one sort or another, acknowledges that specific personality difficulties and the presence or absence of psychosis may also play an important factor in violent crime.

Personality disorder is a term describing long term, severely disordered patterns of behaviour rather than temporary or relapsing illnesses. It is often co-morbid with other social and psychiatric problems (for example, substance abuse, depression, eating disorders). Treatment of such patients has only limited success. While psychiatric and drug interventions have an important role and advances have been made in cognitive and behavioural approaches (including CBT), it is generally recognised that the early experiences and parenting of these people is likely to have an important influence. Enns et al., (2002) investigation of the effects of parenting on psychiatric morbidity showed a small but significant effect of lack of maternal and paternal care on the development of depression, substance use and anti-social behaviour for both genders (it was also associated with anxiety for women). Lack of paternal care was also associated with a number of disorders for men including PTSD, depression, substance use, anti-social personality, and so on. Dozier, Stovall, & Albus, (1997) report the results of a number of studies of people with various psychopathological disorders, including personality disorders. Although insecure and unresolved classifications are high in clinical populations (see Chapter 6 for a fuller discussion) it is rare that attachment classification appears to be discriminating for a particular clinical group.

Recent work on attachment organisation in 'adults with serious psychopathological disorders' (schizophrenia and affective disorders) (Dozier, Stevenson, Lee, & Velligen, 1991) (Dozier, 1990) demonstrated that both pre-occupied and repressing insecure attachment strategies were employed. In these studies greater security was associated with higher pre-morbid 'competence' and also with more compliance with treatment. It was also more represented in the group with affective disorders rather than thought disorder. These studies were analysed using Q-sort methodology. However in 1997, Dozier et al., (1997) referred to a study of people with schizophrenia in which adult attachment interviews were classified using the Main and Goldwyn system. In this study, 89% of their sample were found to be dismissing when secure, dismissing and pre-occupied-entangled classifications were compared and 44% were found to be unresolved with respect to loss or trauma when the unresolved class was included in the analyses. They do point out some of the prudence that should be exercised when interpreting these results pointing out that lapses in monitoring and discourse are common in schizophrenia and if they co-incidentally occur when talking about loss or trauma, this might lead to a somewhat inappropriate rating. They also point out that incoherence of mind, which is again common in psychotic illnesses, also leads to insecure ratings.

Fonagy et al., (1996) specifically looked at attachment classification and psychiatric status. This is one of very few studies that report the results of scores on subscales of the AAI. Although the reliability for rating these subscales is not fully established, they do give some indications of the presence of possible influential factors for these disturbed groups. The group of patients that are reported by these authors (Fonagy et al., 1996) were assessed using the Structural Clinical Interview for DSM-III-R and there were an average of 2.7 Axis I diagnoses. Seventy-two per cent of the group also had an Axis II diagnosis. This paper reports results of Adult Attachment Interviews before the Cannot Classify classification was introduced. Bearing this limitation in mind, the study reported that patients with anxiety were more likely to be Unresolved with respect to loss or trauma; 75% of patients with a diagnosis of Borderline Personality Disorder were classified as pre-occupied and one sub classification (fearful pre-occupation with trauma) was unexpectedly common in the psychiatric group in general and the Borderline personality disorder group in particular. The psychiatric group were also more likely than the control group to have experienced physical or sexual abuse. Of the depressed patients, those with major depressive disorder were

more likely to be secure (F) than those with bi-polar disorder or dysthymia. Interestingly they also scored more highly on the involving anger with parents subscale. Patients with bi-polar disorder were more likely to be Dismissing (D). With regard to the subscales, there were key differences on the scales of experience for the psychiatric patients and the control group. The psychiatric patients were more likely to have lower scores on the positive experience scales (loving) and higher scores on one of three negative experience scales (rejection, neglect and role reversal). This study also showed an association between poorer capacity for reflective function, borderline personality functioning and abuse.

This work (Fonagy et al., 1996) is part of a developing literature on the relationship of borderline personality disorder and adult attachment classifications (Fonagy et al., 1995a) (Patrick, Hobson, Castle, Howard, & Maughan, 1994) (Diamond et al., 1999). For example, Patrick et al., (1994) compared women presenting with borderline personality disorder with a matched group of women presenting with dysthymia, using the adult attachment interview. These were all from an out patient psychotherapy waiting list. Patrick et al., (1994) predicted that women with borderline personality disorder would have fewer 'secure' classifications than women with depression, that they would have an increase in the 'enmeshed/preoccupied' classification and an increase in the 'unresolved' classification. In fact, there are few 'secure' classifications in either group but there was a significantly increased presence of 'enmeshed/preoccupied' classification in the borderline personality group and ten of the twelve subjects conformed to one particular subscale of the 'enmeshed/preoccupied' classification. Additionally, three quarters of the borderline personality group also scored positively for the 'unresolved' classification, which addresses previous losses and traumas, and this was again significantly greater than the depressed group.

This can be compared with work of Pilkonis and colleagues in a series of studies looking at depressed patients and Axis II personality disorder (Kim, Pilkonis, & Barkham, 1997; Kim & Pilkonis, 1999; Pilkonis, Kim, Proietti, & Barkham, 1996; Stern, Kim, Trull, Scarpa, & Pilkonis, 2000). They noted different subtypes of depressed patients - excessively dependent and compulsively self reliant - and found 100% of depressed patients in their group who were excessively dependent also qualified for an Axis II personality disorder. The percentage of patients who were excessively autonomous presenting with depression and an Axis II personality disorder

was much less, 44%. However this may an artefact of patient actually seeking treatment for depression.

Shaver & Brennan, (1992) in an investigation of the relationship of attachment style and the 'big 5' personality traits (neuroticism; extraversion; openness to experience; agreeableness; and conscientiousness) and noted that attachment style was meaningfully related to personality factors but not redundantly so. Attachment style was more powerful in predicting the outcome of romantic attachments than personality factors. On the 'big five', secure subjects were less neurotic and more extraverted than insecure subjects, and more agreeable than avoidant subjects. No significant differences emerged between the two insecure groups.

In these studies, there appears to be a developing relationship of over-involved dependent attachment styles and greater pathology, in some groups. This is in contrasts with the findings of Bowlby (1944a; 1944b) and the group of 'affectionless' thieves. One hypothesis might be that those people with self reliant, autonomous or dismissing attachment styles, when coupled with personality problems or unresolved traumas may find themselves in the criminal justice system rather than the mental health system.

The conclusions from the work presented above outlining the strategies employed by people in underpinning their attachment strategy and interpersonal relationships will be examined in regard to possible differences for sexual and non-sexual violence. In addition the nature of clinical psychopathology is also examined used to inform the hypotheses and predictions for this thesis. Drawn from the literature presented above, these will be presented in the next chapter.

Chapter 3: Aims and hypotheses

The first aim of this thesis is to provide a substantial examination of the attachment and interpersonal functioning of a group of mentally disordered offenders who have committed sexual or violent offences. This is an area of understanding that has, from an empirical stance, been neglected in this group. The focus has been more on trying to systematise risk factors for future offending, examine recidivism rates, quantify social deficits and implement anger management strategies. These initiatives have had limited success and have not paid adequate attention to the complexity of influences and features that contribute to the manifestation of mentally disordered offending. It is also of note that it has been difficult to 'join up' the extensive findings from longitudinal and prospective studies with what is known about the violence of mentally disordered offenders.

The approach will be a multi level one. Although measures will be described in detail below, a brief comment about those chosen is given here to provide a foundation for the a-priori predictions that are made. The first level of examination uses measures that examine the process of description of key attachment experience (the Adult Attachment Interview, AAI) and capacity for mentalisation (RF). This will be contrasted and compared with repertory grid methodology and a questionnaire approach. Repertory grids allow for an investigation of the interpersonal construing of participants in a form that is both somewhat opaque to participants and also yields quantitative data that can be subjected to a group comparison approach. Repertory grids bridge conscious and pre-conscious domains and provide an intermediary level of analysis between the AAI and the Inventory of Interpersonal Problems (IIP). The IIP is a questionnaire method that is explicitly placed in the conscious realm and asks straightforwardly for the participants' assessment of their own interpersonal functioning. Though transparent, it does require some capacity for self awareness and reflectiveness about ones own interpersonal functioning. It is not attuned to pick up difficulties that may be beyond the participants' awareness.

The second aim of the work presented here, is further extend this investigation in a traditional 2 x 2 study design that allows for the examination of differences between two forms of violence (sexual and non-sexual violence) and between clinical

presentation that is characterised by 'psychotic' functioning (referred to as severe mental illness, SMI) and that characterised by personality disorder (PD).

An attempt will be made to describe in advance certain features that might be found in individuals or sub groups of the four main groups. With regard to the whole group it is likely, in accord with findings in the literature of forensic populations and clinical groups in general, that there will be; a preponderance of insecure classifications; experience of unresolved loss and trauma; and low reflective function. It would be expected that a group that has such difficulties managing interpersonal space (as indicated by their violent actions) will also be likely to have a large number of interpersonal difficulties.

Concerning specific differences between groups, it has been seen that some differences and contradictions exist in the results of studies that have been published. In some studies, the level of definition in groups has not been sufficient to address particular questions of interest. However some trends do emerge and these are as follows: violent groups are more likely to be characterised by D classifications; sexual offenders against children are characterised by E classifications; sexual offenders against adults are characterised by CC, disorganised, as well as E and D classifications.

The question of the presence of CC classifications is complex. At the moment, support for a theoretical argument for elevated CC classifications in sexual offenders comes from a number of sources. The relationship between self preservative aggression and sado-masochistic aggression in some sexual offenders would suggest the presence of features of anxious-ambivalent or E features as well as avoidant or D features. Further empirical support exists in the frequency of CC classifications for maritally violent men, although it is of course unclear if this will hold up when the intimacy of the marital relationship is removed. However it should also be noted that there is some evidence that CC classifications are associated with other factors for example, histories of institutionalisation (for example, van IJzendoorn et al., 1997). Farrington, (1989) reports that separations before the age of ten are associated with later violence and this may accord with Bowlby's original findings that the affectionless characters had early (before the age of five) and prolonged separations. Bearing in mind the comprehensive work by Meloy and colleagues that suggests that sexual murderers (mostly adult offenders) score highly on responses of the Rorschach that correspond

with an anxious-ambivalent attitude, we predicted elevated CC and E classifications in the sexual offenders

The findings mentioned above that point to an increased likelihood of D classifications in violent groups is supported by the work of van IJzendoorn et al., (1997), Ross et al., (2001) and Levinson et al., (1999). This last paper also points to lower reflective function scores in the violent group. The exact nature of these insecure classifications is unclear but there is some evidence of a tendency towards more dismissive classifications (particularly in the violent offenders), more CC classifications and lower Reflective Function (RF).

It is also important to delineate what expectations there may be about the impact of personality disorder or psychotic functioning in the groups. There are disparate findings about the influence of severe mental illness (SMI). Pre-morbid competency seems to have been associated with some protection and the increased likelihood of secure score, but Dozier and colleagues (Dozier, 1990; Dozier et al., 1991; Dozier et al., 1997) have also found high number of insecure classifications in these groups. It seems possible that these somewhat disparate findings may be associated with the potential for more diverse responses that may flatten any underlying affects and so we have adopted the prediction that any differences that do emerge will be more marked in the PD group than the SMI group.

Specific hypotheses and Predictions

The principal hypotheses are as follows. Some comparisons are 'external', i.e. they concern comparisons between values found in the samples collected for the study against data already published, which we shall call 'referential' data; others are 'internal', i.e. they involve comparisons between the samples collected for the study. The hypotheses which are more central to the intentions of the study are italicised.

Adult Attachment Interview:

A. Hypotheses about external comparisons: These hypotheses relate to the nature of the psychodynamics and associated interpersonal relations in individuals who have committed violent and sexual crimes, and to the correspondence between such

psychodynamics and particular 'attachment representations'. In relation to these hypotheses/predictions, we compare the results with those from other clinical and normative groups in the literature. The hypotheses, which we have formulated elsewhere, yield the following predictions:

- *Over all classifiable transcripts, the proportion of insecure classifications in the interviews of the present sample of mentally disordered offenders will be higher than expected on the basis of 'normal' and other 'clinical' but non-criminal referential data.*
- *The proportion of Unresolved transcripts in the groups under study will be higher than expected on the basis of other 'normal' and other 'clinical' but non-criminological data.*
- *The proportion of CC transcripts in the groups under study will be higher than expected on the basis of other 'normal' and other 'clinical' but non-criminological data.*

B. Hypotheses about internal comparisons: When SMI and non-SMI groups are combined we expect the following group differences:

- *Sex offenders will show more indication of pre-occupied 'E' type mental functioning, whether in terms of a greater prevalence of E categories in individuals, or in the details of the ratings (demonstrated on higher subscale scorings on 'Passivity of thought processes' or 'Involving Anger' subscales) than violent offenders.*
- *Sexual offenders will show more evidence of 'CC' functioning than violent offenders in that more individuals in the sex offending group will be classified 'CC'.*
- *Violent offenders, will show more indication of 'D' functioning whether in terms of a greater prevalence of 'D' categories or in the details of the ratings (demonstrated by higher subscale scorings on 'Idealisation', 'Derogation' or Lack of Recall' subscales) than sexual offenders.*
- *Although no directional prediction is made about Unresolved transcripts, it will be analysed against the null hypothesis of no difference by offence type or diagnosis.*

Reflective Function

As stated above, we followed Fonagy et al., (1997b) in adopting the hypothesis the psychodynamics of aggression involve an impaired capacity to 'mentalise' and reflect on both others' and one's own experience. This yields the following predictions

- *The whole group will show lower RF scores when compared with 'normal' or other 'clinical' non-criminological referential data.*

In addition we hypothesise that non-sexual aggression is different from sexual aggression such that the aggressive acts betray a mental organisation with a tendency towards modes of splitting and denial that will be demonstrated in even lower RF scores

- *The violent group will show lower RF scores when compared with the sexual group.*

The Dyad Repertory Grid

We hypothesise that the impaired capacity to 'mentalise' described above will be evident in the specific dyad grid parameters on the DRG. We suggest that there is less capacity to realistically differentiate between self and other, especially in high stress situations like offending or in key relationships. This would be evidenced by more 'extreme' rating, i.e. that the other will be rated either as very different from the self or very similar to the self. This concept is referred to as 'distance'. The grid chosen addresses relationships that are judged to be more likely to be affected by impaired capacity to 'mentalise' by virtue of a greater degree of involvement and proximity (parents, victim) and those that are more likely to be protected by some capacity for distance (friends, professionals). This leads to the following predictions:

- *distance (self↔victim) > distance(self↔friend)*
  (self↔mother)
  (self↔father)
- *These will be more marked in the violent group*

- *Based on the suggestion of Winter (1983) that a tightly organised construing system is indicative of difficulty in accepting help, and that the size of the first principal component reflects 'range of responsiveness' on the grid, we anticipate that in relation to measures recorded in the literature, the size of*

the first principal component will be high for both groups, and greater for the violent group than for the sexual offenders.

Inventory of Interpersonal Problems

The IIP was chosen as a measure of interpersonal problems in wide use in the psychological therapies research. It is employed to test the range of interpersonal problems revealed in these samples of men who have psychological problems expressed in interpersonal problems, and who have committed serious interpersonal offences. However, two things complicate that simple picture. The first is that the clinical experience of the author in using the IIP with mentally disordered offenders suggested that they scored low relative to their known interpersonal problems, and their scores not infrequently became worse with therapy that in other respects was judged to have helped them with their interpersonal problems. The second is that the number of ways of scoring the IIP was proliferating in the planning stages of this study, so that there are now many ways of scoring the measure and none with overwhelming empirical or theoretical evidence of superiority.

Given the complexities of scoring the IIP – as well as the complexities inherent in interpreting the data from this form of self-report measure (where defensive processes may have a marked impact on responses) – our predictions concerning the results are tentative

- *that, on the assumption that the offenders under study are prone to deny or otherwise lack insight into their functioning, they will tend to score lower on the IIP than other groups reported in the literature – or at least, relatively less high than might seem justified by their interpersonal difficulties*
- *that, on the assumption that violent offenders are less insightful (and less reflective) about their own interpersonal functioning, they will tend to score lower on the IIP than sexual offenders*

A: Hypotheses about internal comparisons: Given the many ways of scoring the IIP, we are adopting the general null hypothesis that there will be no difference between the groups on any scores. As it is unclear, *a priori*, how diagnostic group would affect scoring it is predicted that that there will be a relationship with offence type such that violent offenders will score lower on the IIP than sexual offenders.

- *IIPscore(V) < IIPscore(S)*

B: Hypotheses about external comparisons: The general null hypothesis of no differences from clinical samples in the literature is tested with the alternative hypothesis that the whole group will score *lower* than referential data in the literature for other clinical samples. It is anticipated that this might be more marked for the group of violent offenders.

- *IIPscore(MDOs) < IIPscore(other clinical)*

and particularly:

- *IIPscore(V) < IIPscore(other clinical)*

We also sought to compare the scores from our samples with the relatively few reported mean scores for non-clinical samples that we found in the IIP literature. The null hypothesis tested was of no difference. Clearly this creates the statistical design problem of finding ourselves interested in "proving the null hypothesis" since the finding that either the entire group, or perhaps particularly the violent offenders, would show a mean score not statistically significantly different from that of non-clinical samples in the literature was of considerable clinical and theoretical interest. The problem of "testing the null hypothesis" is avoided to some extent by the test of the external comparisons being conducted by calculating 95% confidence intervals for the difference in means between the samples in the study and the non-clinical samples in the literature: very wide confidence intervals would indicate that the finding of a non-significant difference was no indication that there might not be a large difference.

Exploratory hypotheses.

These hypotheses are seen as exploratory since they rest on smaller groups, less clear evidence in the literature, or less robust data. For example, although Psychopathy Checklist – Revised scores (PCL-R) were obtained according to the rating protocol, they were based on case notes rather than on interviews. Some of these hypotheses may not be statistically testable and so preliminary indications for support for these ideas will be sought in the transcripts, in the wider range of scoring and in the frequencies of particular classifications and subscale scores.

- It is possible that there are differences in the attachment classifications of rapists and sexual offenders who offend against children. Therefore we predict that;

  offenders in the sexual group who have also histories of convictions for rape may be closer to the violent group in scores on D than those sexual offenders who offend against children.

- From the literature it has been suggested that violent offenders have more experience of early separations and institutional care than other types of property and non-violent offenders. We will examine the reported early separations and institutional care experiences for our groups to see whether such differences hold up between sexual and violent offenders.

- In this sample we have a subgroup of five patients whose offences specifically include the murder of one or both parents. These cases will be examined to see if they exhibit any similar characteristics to one another.

- Concerning the case note diagnoses for psychopathy, we would predict that the PD group would score higher on this measure than the SMI group.

  $P(PCL\text{-}R|PD) > P(PCL\text{-}R|SMI)$

Chapter 4: Participants

Mentally Disordered Offenders

The sample chosen consists of men who are suffering from some form of mental disorder as defined by the Mental Health Act, 1983 (HMSO, 1983). The sample is drawn from a Special Hospital population of men with the additional requirement that the participants should have committed a violent interpersonal offence. A Special Hospital population was chosen for two reasons. Firstly, the author had experience of working in these settings and familiarity with the constraints of the setting and with security procedures which made the sample one that was logistically feasible to manage. Secondly, there is a strong view within the tradition of forensic psychiatry and psychology in Britain that MDO's should be treated within a health system rather than a penal one, which has contributed to the existence of a substantial body of MDO's contained within the health care system. The question of the generalisability of the findings of this study are addressed below.

While the proportion of offending committed by those who are mentally disordered is small, the total numbers are not. The current medium secure bed need in England and Wales is around 2,500 with approximately a further 1,200 high secure beds in Special Hospitals. Although most offences are not associated with psychiatric disorder this trend changes with more serious offences. In the UK between one third and one half of homicides are committed by Mentally Disordered Offenders (Gelder, Gath, & Mayou, 1994).

Sampling from an extreme population such as this brings with it a series of complicating factors not least of which are the definitions. Using conventional psychiatric nosology of DSM IV, there is high co-morbidity of Axis I and Axis II disorders. Despite this, there is a legalistic distinction made in the Mental Health Act in that some people are held as suffering from Mental Illness and others as suffering from Psychopathic Disorder (not a psychiatric definition but described as a "disorder or disability of mind which results in abnormally aggressive or seriously irresponsible conduct"). Broadly, there is some overlap with Axis I and II disorders, in particular patients with "psychoses" (experiencing hallucinations and holding fixed, firmly held convictions, that are not culturally or "sub-culturally" appropriate) are most commonly

detained as suffering from Mental Illness whereas people with personality disorders (without psychosis) are most commonly detained as suffering from Psychopathic Disorder. In high secure hospitals such as Special Hospitals, it is quite common for the actual psychiatric disorder not to be defined (perhaps because of multiple Axis I and or II diagnoses), whereas the MHA category of Mental Illness or Psychopathic Disorder is documented.

Participants

Without wishing to foster a myth that women don't commit violent or sexual offences, women were excluded both for pragmatic reasons and as the dynamics of female offending are thought to differ somewhat from male offending. All male patients in one of the three Special Hospitals whose index offence was a violent or sexual interpersonal one were eligible for participation. For the purposes of this study, the "interpersonal" nature of an offence was determined by a breaching of the body boundary by the mentally disordered offenders themselves. Thus, violent acts that were committed in other ways – for example, armed robbery, burglary, arson, vandalism, planting bombs – were identified as "hands off" acts and were excluded from the study.

Violent

To try and preserve as distinct a set of groups as possible, the histories of those patients' whose index offences were violent were examined to ensure that there was no suggestion of sexual motivation or difficulties that may relate to their offending. Therefore, patients were excluded from the violent group if they met one of the following criteria:

1. Previous history of sexual offences
2. There was a clear sexual assault or motivation to the Index offence, although this may not have been apparent in terms of the nature of the offence for which they were convicted (for example, a person who commits rape in the course of a murder, has as his primary offence the more serious act of murder or manslaughter). This included all homosexual violent offences or offences within homosexual encounters.
3. Homosexual offence or motivation.

4. A possible sexual element to the index offence, though this is not as clear as in ii. For example: a. Victim was prostitute; b. victim was partner and there was evidence in clinical records of a sexual motivation or offence; c. there was sexual mutilation of the victim (e.g. to the genitals).
5. Clinical reports (e.g. psychiatric/psychological/pre-admission/admission assessment and case conference) suggested that there was sexual motivation or elements to the index offence, that is, clinical opinion
6. Sexual problems were reported, though with little apparent motivation
7. Other

Sexual

The sexual offending group consisted of patients whose index offence was a sexual offence or had a clear sexual motivation. This group included people whose victims were both adults and children and included those who would be described as paedophiles, rapists or both. Lesser sexual offences, such as exhibitionism and voyeurism are rarely associated with admission to high secure care and were not included.

Sample

One hundred and forty three patients were approached to participate in the study and of these 66 (46%) agreed. Thirteen of these 66 were also excluded as follows. Two interviews were terminated prematurely by the interviewer as it was judged not to be in the interests of the patient to proceed. One patient decided not to go onto the second stage of data collection but did allow the interview material to be included in the study. Six subjects who were reported on file as suffering from Asperger's syndrome were withdrawn. People with this disorder experience specific difficulties in interpersonal interaction that were considered to be different in kind from that of the other cases included and might distort the data. Five cases were withdrawn prior to data analysis but after a second reviewer identified potentially sexual motives in participant's histories. No patients withdrew consent after they had completed the interviews. The final subject pool was 53 (80% of 66 consenting to the study, 37% of the 143 eligible).

Five patients requested that they be informed of the outcome of the study and thirty-eight requested that this information about their results be made available to the clinical team.

Internal generalisability

The *internal generalisability* of the study concerns whether the sample is representative of patients in Special Hospitals, and also the issue of bias, i.e. whether any one of the four different sub-groups in the study differs in any consistent way from the Special Hospital population from which it was drawn.

The relatively high number of refusers raises the possibility of such sampling bias. It should be noted that the author took extreme care to make it clear to participants that they were free to decline to join the study and also free to withdraw at any time even if they initially consented to participate. This was both for the standard ethical reasons but also because the AAI is a very personal interview. It is likely that there would be validity questions about the AAI if people entered into it without full collaboration.

Preliminary assessments of category of violence (sexual or non-sexual) and mental disorder (SMI or PD) were made prior to approaching potential participants. Although these groupings cannot be taken as definitive, since they were not subject to the intensive case note reviews that acted as a validity check on both the PD/MI distinction and the sexual/violent distinction, they do provide a simple basis on which to look for possible sources of bias in terms of refusal rates for different groups.

Fifty-three participants went into the final analyses of 143 patients considered. One hundred and thirty nine of the 143 could be allocated to one of the four design groups. Although the raw data appeared to suggest that there might be a different inclusion rate in the four groups, this did not reach statistical significance at the .05 level (exact p, two-sided = .33) and narrowly failed to reach statistical significance when the groups were collapsed to compare SMI and PD (exact p, two-sided, = .07).

External generalisability

This addresses the generalisability to populations other than of men in Special Hospitals, for example mentally disordered offenders in prison. There is little reliable information that examines whether the populations of MDO's held in hospitals are

fundamentally different from those in prisons, or to be more precise, on what variables, other than location, they differ. Gunn (2000) reports that the rates of psychosis in sentenced prisoners in England and Wales is between 2 and 7%. He notes the view of Biles and Mulligan (1973) that the choice of mental hospital or prison is largely one that "reflects different styles of administration" rather than a choice driven by rehabilitation or therapeutic concerns. Gunn suggests that the current administrative preference for imprisonment results from increased public anxiety about violence; the fact that prison is thought to be a cheaper alternative; the "death of liberalism"; and the lack of support offered within forensic psychiatry to the mental health care professionals who look after MDOs, particularly in the context of questions of 'treatability'.

From a different perspective, Polczyk-Przybyla and Gournay (1999) describe the increase in number of transfers of MDO's from prison to hospital between 1984 and 1994 – a six fold increase in that time. They comment that the increase in medium secure provision in the health service at that time through the development of Regional secure units, the increase in private long term secure care provision and the development of assessment and treatment facilities in prisons are responses to this problem. Like Gunn, they argue that similar levels of service are offered in prisons and secure hospitals.

For personality disorder diagnoses the equivalence of prison and secure mental health populations has been put in a political spotlight by recent political concern about the management of people deemed to have "Psychopathic Disorder" in the terms of the Mental Health Act (broadly but not precisely equating with a diagnosis of a personality disorder and disorders of conduct) who are judged to be "untreatable" after a period of detention and who thus become liable for release, their detention becoming illegal. This has led to the creation of services specifically for people judged to have 'dangerous and severe personality disorder'. In the context of concerns over generalisability it is of note that these services are being set up in both health and penal services, i.e. within Special Hospitals as well as prisons. Despite Gunn's observation of the rates of active psychotic disorders in prisons (shown in several different surveys), many people held in prison do not have Mental Illness or severe personality disorders and one would not expect any data from the sample under study to be generalisable to this group.

The population of MDO's is a significant group. As well as the 2-7% of the prison population referred to by Gunn (2000) the number of health service beds is also of note. The current number of medium secure beds the health service in England and Wales is around 2,500 with approximately 1,200 high secure beds in Special Hospitals. Although most offences are not associated with psychiatric disorder this is not so clearly the case for more serious offences; in the UK between one third and one half of homicides are committed by Mentally Disordered Offenders (Gelder, Gath and Mayou, 1994).

Complete subject pool

Differentiation between groups of sexual offenders and violent offenders and between people with severe mental illness and personality disorder or psychopathy is not always straightforward. At this level of severity of disturbance there are more likely to be issues of co-morbidity, poly-perverse criminology, and so on. The definitions below try to set out as clearly as possible the distinctions that were made and the rationale for these. In both groups, the existence of co-morbidity was accepted and the allocation to specific groups was based on absence of a particular variable: absence of sexual offending in the violent group; and absence of 'psychotic' functioning in the personality disorder group.

In order to allocate participants to groups, the following steps were taken. To allocate to offence type, information about index offences (those offences that led to the person being detained in high security) was taken as an initial indication of whether the person would fit criteria for violent or sexual offending. Case notes were then examined in detail to establish whether prior history of offending or suspected behaviour contra-indicated any group allocation (see below for details). To allocate to diagnostic group, Mental Health Act, 1983 (HMSO, 1983) categories, which differentiate on 'Mental Illness' and 'Psychopathic Disorder' were taken as a starting point for allocation. Case notes were then examined for evidence of co-morbidity that would mitigate against allocation to a particular group. Initial allocation was by a research assistant employed for the purposes of data collection in this project, all allocations were subsequently reviewed by the author.

The rationale that was followed was one that respected the philosophy of the MHA (1983) supported by clinical judgement. However, it was recognised that this does not elucidate the active influence of personality functioning. It was not possible in this study project to carry out a structured clinical interview to assess this. However, Hare Psychopathy Checklist ratings (Hare, 1995) were made on the basis of case note judgements. These ratings were made by the author (a clinician with experience of working with this population) and are presented below. Finally, case vignettes are also presented to give the reader a more comprehensive picture of the participant group.

Definitions:

Sexual

Sexual offences involve the breaching of body boundary through the motivation of sexual gratification. Although some research suggests some differences between different groups of sexual offenders for example, paedophiles and rapists, for the present study it is considered that the libidinisation of the aggression is super-ordinate to these sub-types and so all types of interpersonal sexual offending is included in this group.

Violent

Some violent offending clearly involves an element of sexual satisfaction, for example sadism. Glasser, (1998) distinguishes between 'self-preservative violence' and 'sado-masochistic violence'. As far as possible, violence that appeared to have a direct sexual satisfaction for the perpetrator but without the committal of a formal sexual offence were excluded.

Severe Mental Illness

Co-morbidity of DSM-IV, Axis I and Axis II disorders is common in Mentally Disordered Offenders and no attempt was made to exclude Axis II disorders from this group. Severe Mental Illness (SMI) is defined to include Schizophrenia; Schizo-affective disorder; drug induced psychosis; mood disorder; depressive disorder and bipolar disorder. This group therefore includes psychosis and major affective disorders.

Personality disorder

Disorders included here include Axis II defined personality disorders and also disorders of "intentionality" that are rated on Axis I of DSM-IV, such as substance abuse (without enduring psychosis), sexual sadism and paraphilias. The rationale for this is that "impulsivity" without formal psychosis is often seen as part of a constellation of personality disorders. Subjects reaching the criteria for these stated disorders *in the absence of* SMI are included in this group.

Overall sub-groupings of sample

These are presented in Table 2, below.

Table 2. Overall sub-groupings

	Sexual	Violent	Totals
SMI	11	17	28
PD	15	10	25
Totals	26	27	53

Descriptive and demographic characteristics of the whole sample, including breakdown by group

Age

Ages at time of committing index offence, age at admission, and age at interview are presented in Table 3 below. Histograms for these are presented in Figure 1 below, Figure 2 below and Figure 3 below.

Table 3. Ages at offence, admission and interview

Age	Index offence		Admission		Interview	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
16-17	1	1.9	1	1.9	0	
18-20	11	20.8	10	18.9	1	1.9
21-29	23	43.4	18	34.0	13	24.5
30-39	12	22.6	15	28.3	23	43.4
40-49	5	9.4	5	9.4	7	13.2
50+	1	1.9	4	7.5	9	17.0
Total	53	100.0	53	100.0	53	100.0

Length of admission to high secure care

The duration of admissions to high secure care can be found in Figure 5 below. The range was from less than 1 year to 26 years, with a mean stay of 5.6 years (standard deviation, 5.1). The 25th centile was 2 years; the median was 4 years; and the 75th centile was 8.5 years.

Ethnicity

Breakdown of sample in terms of ethnic group is presented in Table 4, below.

Table 4 Ethnic group

Group	Frequency	Percent
Black African	2	3.8
Black Caribbean	5	9.4
Chinese	1	1.9
Indian	1	1.9
Other	2	3.8
White	42	79.2
Total	53	100.0
Collapsed categories:		
White	42	79.2
Non-white	11	20.8
Total	53	100.0

I.Q. scores

WAIS scores (or equivalent) ranged from 66 to 132. Data was missing for four cases. The other 49 had a mean of IQ 91; standard deviation of 12.9 IQ points; 25th centile at IQ 80.5; median at IQ 90; and 75th centile at IQ 99. Breakdown of sample in terms of IQ is presented in Figure 4 below.

Educational attainment

Educational attainment is presented in Table 5 below.

Table 5. Educational attainment

Qualification	Frequency	Percent
None	18	34.0
CSE	7	13.2
GCSE	2	3.8
O lev	4	7.5
A lev	1	1.9
HND	1	1.9
U. Deg	1	1.9
Other	3	5.7
Total	37	69.8
Not known	16	30.2
Total	53	100.0

Relationships

The frequencies for ever having had a long term partner are presented in Table 6, below.

Table 6. Long term relationships

	Frequency	Percent
Never had a partner	42	79.2
Has had a partner	10	18.9
Total	52	98.1
Not known	1	1.9
Total	53	100.0

Relationship between demographics and group classification:

These were analysed to test for any associations between group classification and demographic variables.

Age at index offence.

A cross tabulation for age at of index offence with frequencies and percentages is presented in Table 7, below. These were then tested with an ANOVA which is presented in Table 8, below. There are differences that reach significance levels for both diagnosis and offence type: the personality disorder group are younger than the SMI group when they commit their index offence and the violent group are younger than the sexual offenders.

Table 7. Age at index offence by group

	Final groups								Total	
Age	SMI:sexual		SMI:violent		PD:sexual		PD:violent			
	N	%	n	%	N	%	n	%	n	%
16-17							1	10%	1	2%
18-20			4	24%	3	20%	4	40%	11	21%
21-29	6	55%	7	41%	5	33%	5	50%	23	43%
30-39	2	18%	5	29%	5	33%			12	23%
40-49	2	18%	1	6%	2	13%			5	9%
50+	1	9%							1	2%
	11	100%	17	100%	15	100%	10	100%	53	100%

Table 8. Between subjects ANOVA - Age at index offence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	11.176	3	3.725	4.335	.009
Intercept	517.394	1	517.394	602.093	.000
Diagnosis	*4.511*	*1*	*4.511*	*5.249*	*.026*
Offence type	*8.518*	*1*	*8.518*	*9.913*	*.003*
Diagnosis * Offence Type	.406	1	.406	.472	.495
Error	42.107	49	.859		
Total	605.000	53			
Corrected Total	53.283	52			

a R Squared = .210 (Adjusted R Squared = .161)

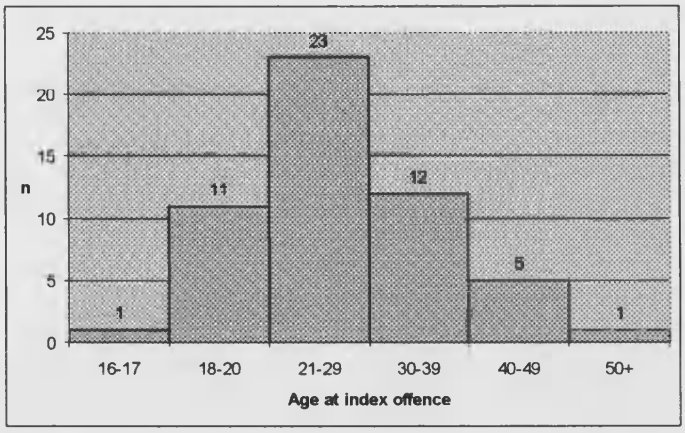


Figure 1 Age at Index Offence

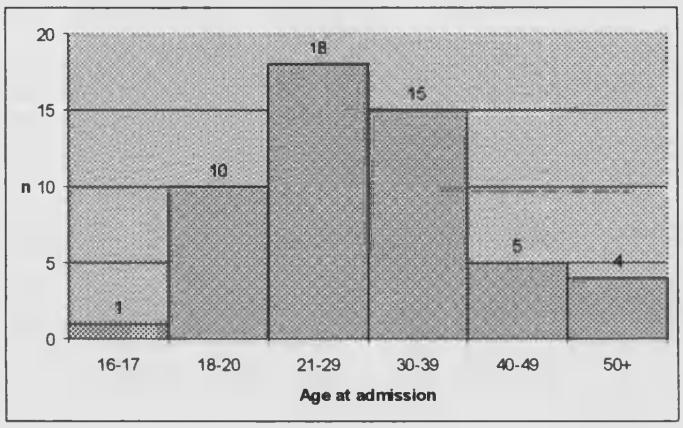


Figure 2 Age at Admission

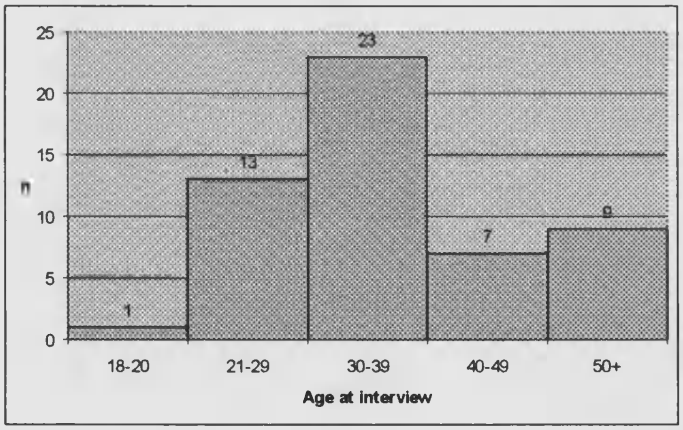


Figure 3 Age at Interview

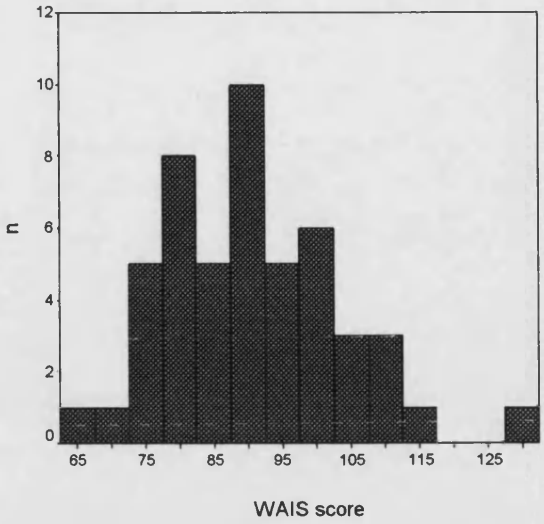


Figure 4 Range of IQ score

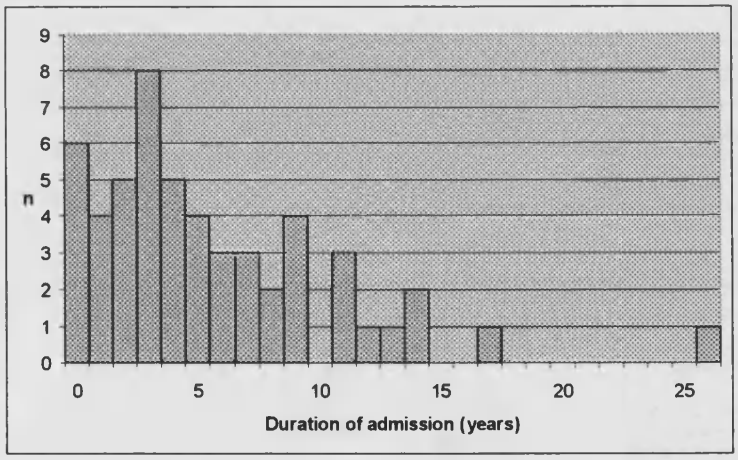


Figure 5 Duration of admission to high secure care

Age at admission

The summary data for age at of admission is presented in Table 9, below. A between subjects analysis shows that there is a statistically significant relationship with offence type, see Table 10, below. Violent offenders are younger than sexual offenders at admission. This is unsurprising as a similar relationship was found for age at committing index offence and there is an association with this and 'disposal', that is when a person is admitted to high secure care. However, the association does not hold up for personality disorder vs. SMI patients. This is illustrated in the box plot in Figure 6 below.

Table 9. Age at admission

	SMI:sexual	SMI:violent	PD:sexual	PD:violent
N	11	17	15	10
Mean	34.1	27.3	33.7	26.2
Median	28.9	25.0	34.1	22.4
Std. Deviation	13.2	7.5	10.2	9.7
Minimum	22.2	20.0	20.2	17.7
Maximum	61.9	47.5	52.8	50.2
25th centile	24.4	20.9	23.0	20.0
75th centile	46.9	32.4	40.1	30.7

Table 10. Between subjects ANOVA - age at admission

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	654.604	3	218.201	2.157	.105
Intercept	46551.056	1	46551.056	460.138	.000
Diagnosis	8.327	1	8.327	.082	.775
Offence type	*648.680*	*1*	*648.680*	*6.412*	*.015*
Diagnosis * Offence type	1.719	1	1.719	.017	.897
Error	4957.209	49	101.168		
Total	54380.306	53			
Corrected Total	5611.813	52			

Age at interview

The summary data for age at interview is presented in Table 11, below. A between subjects analysis shows that there is again an association with offence type that reaches statistical significance, see Table 12, below. Violent offenders are younger than sexual offenders. This is illustrated in the boxplot in Figure 7 below.

Table 11. Age at interview

	SMI:sexual	SMI:violent	PD:sexual	PD:violent
N	11	17	15	10
Mean	41.3	36.1	37.5	30.3
Median	35.0	38.0	35.0	31.0
Std. Deviation	14.5	8.5	10.5	8.4
Minimum	26.0	23.0	22.0	20.0
Maximum	69.0	51.0	55.0	50.0
25th centile	30.0	29.5	28.0	23.5
75th centile	54.0	42.0	47.0	33.0

Table 12. Between subjects ANOVA - age at interview

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	654.251	3	218.084	1.969	.131
Intercept	66602.1	1	66602.1	601.350	.000
Diagnosis	285.134	1	285.134	2.574	.115
Offence type	*489.678*	*1*	*489.678*	*4.421*	*.041*
Diagnosis * Offence type	12.889	1	12.889	.116	.734
Error	5426.96	49	110.754		
Total	76581.0	53			
Corrected Total	6081.21	52			

a R Squared = .108 (Adjusted R Squared = .053)

Duration of admission

The summary data for duration of admission is presented in Table 13, below. A between subjects analysis shows that there is a statistically significant relationship with diagnosis, see Table 14, below. SMI patients show a longer duration of admission. This is illustrated in the boxplot in Figure 8 below.

Table 13. Duration of admission

	SMI:sexual	SMI:violent	PD:sexual	PD:violent
N	11	17	15	10
Mean	7.1	8.7	3.8	4.1
Median	5.1	9.5	3.6	3.9
Std. Deviation	7.2	4.9	3.0	3.2
Minimum	1.6	0.3	0.7	0.0
Maximum	26.8	17.5	11.2	10.0
25th centile	3.1	4.0	1.5	0.8
75th centile	7.1	12.4	5.0	6.8

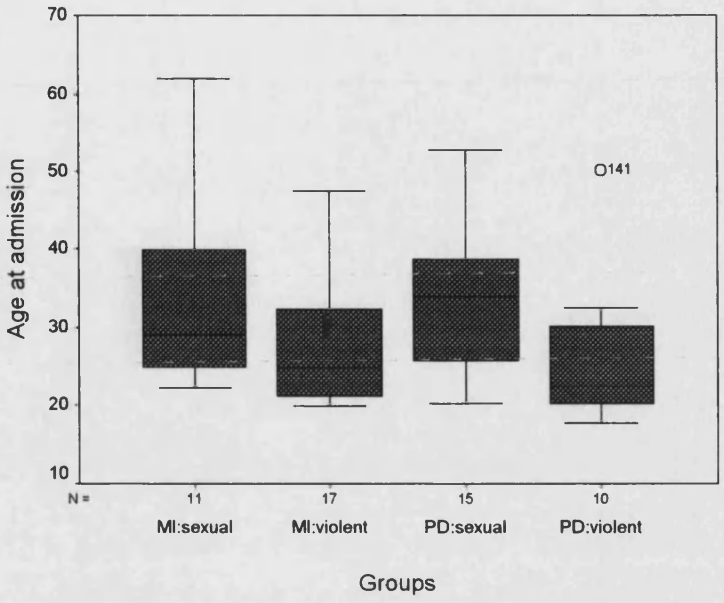


Figure 6 Box plot of between groups differences: Age at admission

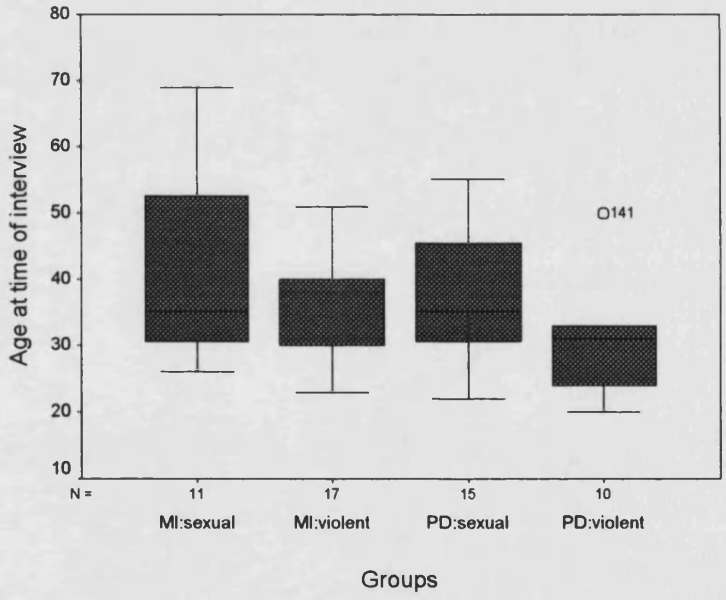


Figure 7 Box plot of between group differences: Age at interview

Table 14. Between subjects ANOVA -duration of admission

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	242.586	3	80.862	3.562	.021
Intercept	1793.145	1	1793.145	78.995	.000
Diagnosis	*195.205*	*1*	*195.205*	*8.600*	*.005*
Offence type	11.352	1	11.352	.500	.483
Diagnosis * Offence type	5.064	1	5.064	.223	.639
Error	1112.271	49	22.699		
Total	3353.329	53			
Corrected Total	1354.857	52			

a R Squared = .179 (Adjusted R Squared = .129)

Ethnicity

The summary data for ethnicity is presented in Table 15, below. Due to the small numbers in some ethnic groups, the data has been collapsed to white and non-white groups. A cross tabulation showed no statistically significant differences between groups ($p = .18$).

Table 15. Frequency and precentages for ethnicity

		Final groups				Total
		SMI:sexual	SMI:violent	PD:sexual	PD:violent	
White	Count	8	12	14	8	42
	%	72.7%	70.6%	93.3%	80.0%	79.2%
Non-white	Count	3	5	1	2	11
	%	27.3%	29.4%	6.7%	20.0%	20.8%
Total	Count	11	17	15	10	53
	%	100.0%	100.0%	100.0%	100.0%	100.0%

IQ scores

The summary data for IQ scores is presented in Table 16, below. A between subjects analysis shows that there is a statistically significant relationship for both diagnosis and offence type, see Table 17, below. The personality disorder patients demonstrate higher IQ scores than the SMI group and the violent offenders demonstrate higher IQ scores than the sexual offenders. This is illustrated in the boxplot in Figure 9 below.

Table 16. Summary data for IQ scores.

	SMI:sexual	SMI:violent	PD:sexual	PD:violent
N	10	17	15	7
N(missing)	1	0	0	3
Mean	86.0	89.4	89.0	105.3
Median	84.0	91.0	90.0	102.0
Std. Deviation	12.4	10.3	10.7	15.5
Minimum	66	73	71	87
Maximum	111	108	106	132
25th centile	78.5	79.5	79.0	89.0
75th centile	92.3	98.0	96.0	113.0

Table 17. Between groups ANOVA: IQ

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1789.472	3	596.491	4.368	.009
Intercept	370698	1	370698	2714.861	.000
Diagnosis	*985*	*1*	*985.262*	*7.216*	*.010*
Offence type	*1034*	*1*	*1034.539*	*7.577*	*.008*
Diagnosis * Offence type	462	1	462.372	3.386	.072
Error	6144	45	136.544		
Total	411885	49			
Corrected Total	7934	48			

Educational attainment

The summary data for educational attainment is presented in Table 18, below. Educational attainment refers to the successful attainment of at least one GCSE or higher qualification. A binomial logistic regression analysis for educational attainment by diagnosis and offence type is shown in Table 19, below. The SMI patients have greater educational attainment than the PD patients (p= .003).

Table 18. Educational attainment

		Final groups				Total
		SMI:sexual	SMI:violent	PD:sexual	PD:violent	
None known	Count	1	3	7	7	18
	%	14.3%	27.3%	77.8%	70.0%	48.6%
Something known	Count	6	8	2	3	19
	%	85.7%	72.7%	22.2%	30.0%	51.4%
Totals	Count	7	11	9	10	37
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 19. Logistic regression for educational attainment

	B	S.E.	Wald	df	Sig.	Exp(B)
Offence type	-.113	.779	.021	1	.884	.893
Diagnosis	*-2.294*	*.775*	*8.754*	*1*	*.003*	*.101*
Constant	3.730	1.842	4.099	1	.043	41.660

Relationship status

The summary data for relationship status is presented in Table 20, below. A bi-nomial logistic regression analysis for educational attainment by diagnosis and offence type is shown in Table 21, below. The sexual offender group have a greater likelihood of ever having been married than the violent offenders (p=.02).

Table 20. Relationship status

		Final groups				Total
		SMI:sexual	SMI:violent	PD:sexual	PD:violent	
Never married	Count	7	16	10	9	42
	%	63.6%	100.0%	66.7%	90.0%	80.8%
Ever married	Count	4	0	5	1	10
	%	36.4%	0%	33.3%	10.0%	19.2%
Total	Count	11	16	15	10	52
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 21. Logistic regression for relationship status

	B	S.E.	Wald	df	Sig.	Exp(B)
Diagnosis	.255	.779	.107	1	.743	1.291
Offence type	*-2.539*	*1.107*	*5.257*	*1*	*.022*	*.079*
Constant	1.498	1.893	.626	1	.429	4.471

Summary of demographic comparisons by group.

Table 22, below presents a summary of the results broken down by the statistical significance of the demographic comparisons by group.

Table 22. Summary of demographic information by group

	Any effect	Offence	Diagnosis	Interaction
Age at index offence	Y	Y	Y	N
Age at admission	Y	Y	N	N
Age at interview	Y	Y	N	N
Duration of admission	Y	N	Y	Y
Ethnicity	N			
IQ test result	Y	Y	Y	N
Educational attainment	Y	N	Y	N
Relationship status	Y	Y	N	

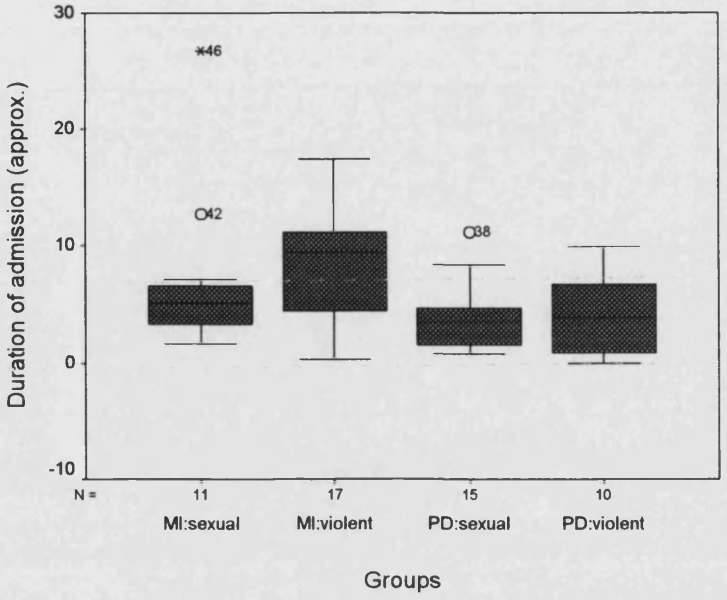


Figure 8 Box plot for between group differences: Duration of admission

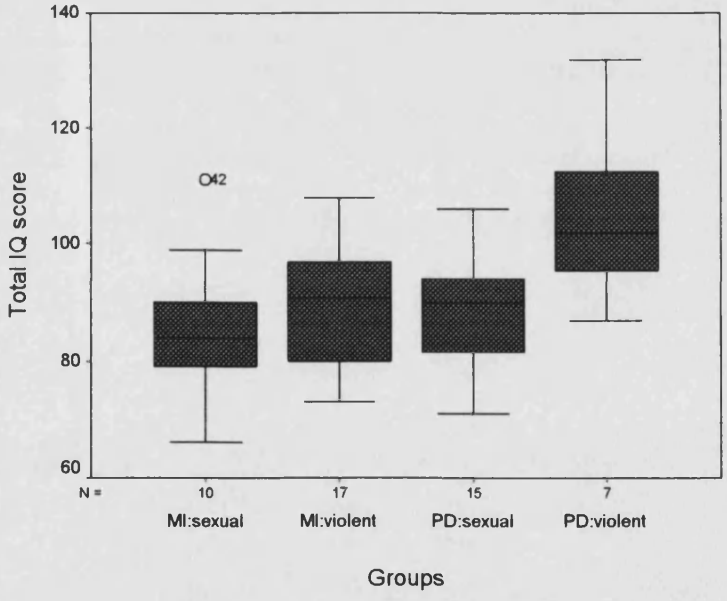


Figure 9 Box plot for between group differences: IQ

Psychopathy Checklist Revised (PCL-R) scores

The PCL-R (Hare 1991) is a twenty item checklist that usually completed on the basis of an interview. It assesses psychopathic disorder, particularly in forensic populations. It is made up of two correlated factors and a three items that do not load on either factor (criminal versatility; many short term marital relationships; and sexual promiscuity). The first factor is described as: 'selfish, callous and remorseless use of others' and the second: 'chronically unstable, antisocial and socially deviant lifestyle'. The prediction was made that the PD group would score higher than the SMI group. The maximum score able to be gained is 40, and a cut off point of 30 is recommended in order to identify psychopaths. The construct validity of the PCL-R in a UK forensic sample is reported by Shine and Hobson (1997).

In this study, the use of the PCL-R was restricted to ratings on the basis of case notes. In some cases, these were quite comprehensive and it was possible to make judgements on all items however, there were a number of files where very limited data was available and on occasion no reliable and relevant data could be extracted. Unfortunately, where information was not available it was not possible to follow it up using other approaches.

Where full details in the file made allocation clear, appropriate scores were allocated (2 for presence of a behaviour, 0 for absence). On occasions some initial evidence of a particular behaviour was available but without sufficient supporting evidence to give full scores. In this context scores of 1 were allocated. Where no information was given (even when the presence of other behaviours may make it likely that a particular behaviour existed) no score was allocated in the review but these were recoded as 0 for analyses. These judgements may therefore be said to be quite conservative.

Internal reliability[3]

As described above, there were a number of missing items in the data which were recoded as 0 to reach final scores. There were fifteen participants who had complete data for the eight item first PCL-R scale and six for the nine item second scale. The

[3] Internal reliability was examined using Cronbach's co-efficient alpha (1951). A full explanation is given in the IIP Chapter.

first scale showed an alpha of 0.85. Within that scale the lowest CITC[4] (corrected item total correlation) was 0.09 for item 1. When missing data were recoded as zero, alpha reduced to 0.81 (with lowest CITC of .15 for item 1). The second scale showed an alpha of 0.91 with lowest CITC of .61 for item 2. This reduced to an alpha of 0.80 (with lowest CITC of .21 for item 9) on recoding missing data as zero. Only two participants had complete data on all 20 items and so scores were not computed on these. When missing data were recoded, the alpha for all items was 0.88, with lowest CITC of 0.21 for item 2_1 (the first item of the second scale).

Distributions and basic descriptive parameters

Scores were computed for each of the two factor scores and also the overall scores for the whole sample. These are presented in Table 23, below and graphically in Figure 10 below, Figure 11 below, and Figure 12 below.

Distributions were also calculated by the four sub-groups. The summary data for these are presented in Table 24, below. Between subjects' ANOVAs were carried out for the two factors and the total scores, against diagnosis and offence type. These are presented in Table 25 below, Table 26 below and Table 27 below.

Table 23 Descriptive parameters of PCL-R scores

	HARE1	HARE2	HARE
N	47	48	45
N(missing)	6	5	8
Mean	6.9	11.2	20.2
Median	8.0	12.4	22.1
Std. Deviation	4.9	5.8	11.3
Minimum	0	0	0
Maximum	16	18	38
25th centile	3.2	7.9	11.6
75th centile	10.3	15.9	31.0
K-S p*	.46	.32	.43

[4] CITC scores are the Pearson correlation coefficient for the correlation between that item and the other items in the scale. A full explanation is given in the IIP Chapter.

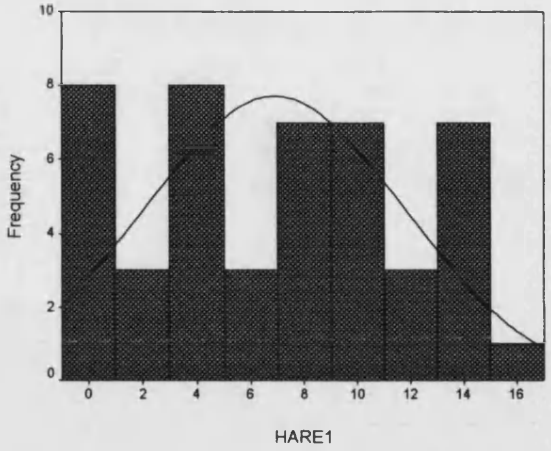


Figure 10 Distribution of Factor 1 scores on PCL-R

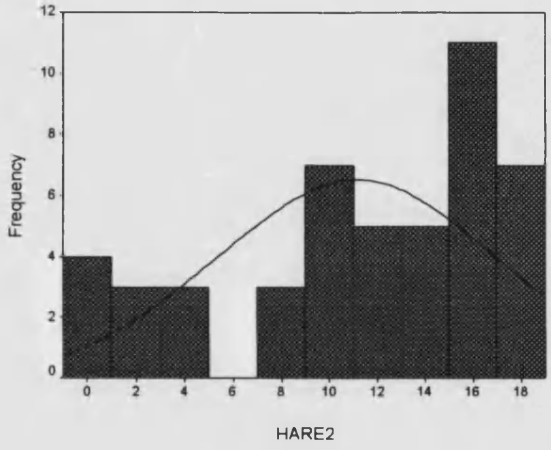


Figure 11 Distribution of Factor 2 scores on PCL-R

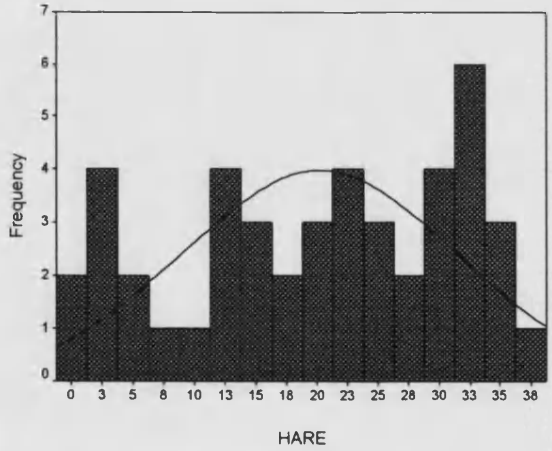


Figure 12 Distribution of total scores on PCL-R

Box plots illustrating these results for the two factors and the total score are presented in Figure 13 below, Figure 14 below and Figure 15 below. It can be seen that the PD group under study score higher than the SMI group for both factors and the total score. Interestingly, differences also emerge for offence type with sexual offenders scoring higher than violent offenders on both Factor 1 and the total score.

Table 24 Summary data for PCL-R by diagnosis and offence type

	SMI:sexual			SMI:violent			PD:sexual			PD:violent		
	H1	H2	H	H1	H2	H	H1	H2	H	H1	H2	H
N	11	11	9	14	14	14	13	14	13	9	9	9
N(missing)	0	0	2	3	3	3	2	1	2	1	1	1
Mean	8.0	10.8	19.6	3.4	8.1	12.7	9.9	13.5	27.8	6.8	12.9	21.5
Median	8.0	11.6	22.1	3.3	9.0	11.6	10.0	16.1	32.7	6.9	13.5	24.1
Std. Deviation	4.3	5.3	9.8	3.2	5.8	10.0	3.7	6.0	9.5	6.1	4.7	10.6
Minimum	0.0	0.0	3.0	0.0	0.0	0.0	3.2	0.0	3.2	0.0	2.3	2.3
Maximum	14.0	16.5	31.5	8.0	16.9	30.9	16.0	18.0	38.0	14.4	18.0	33.3
25th centile	4.6	7.9	10.7	0.0	2.0	3.6	8.0	10.9	21.6	0.6	10.7	13.4
75th centile	11.0	15.0	28.0	6.5	13.9	21.6	12.8	18.0	34.0	13.3	16.4	30.8

Table 25 Between subject ANOVA for PCL-R Factor 1 against diagnosis and offence type

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	306.252	3	102.084	5.647	.002
Intercept	2245.106	1	2245.106	124.188	.000
Diagnosis	*78.859*	*1*	*78.859*	*4.362*	*.043*
Offence type	*173.634*	*1*	*173.634*	*9.605*	*.003*
Diagnosis * Offence type	7.184	1	7.184	.397	.532
Error	777.364	43	18.078		
Total	3327.928	47			
Corrected Total	1083.616	46			

Table 26 Between subject ANOVA for PCL-R Factor 2 against diagnosis and offence type

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	235.247	3	78.416	2.513	.071
Intercept	5917.704	1	5917.704	189.677	.000
Diagnosis	*162.149*	*1*	*162.149*	*5.197*	*.028*
Offence type	31.333	1	31.333	1.004	.322
Diagnosis * Offence type	13.095	1	13.095	.420	.520
Error	1372.748	44	31.199		
Total	7588.146	48			
Corrected Total	1607.996	47			

Table 27 Between subject ANOVA for PCL-R Total score against diagnosis and offence type

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1546.889	3	515.630	5.227	.004
Intercept	17955.512	1	17955.512	182.024	.000
Diagnosis	*780.163*	*1*	*780.163*	*7.909*	*.008*
Offence type	*462.102*	*1*	*462.102*	*4.685*	*.036*
Diagnosis * Offence type	1.138	1	1.138	.012	.915
Error	4044.400	41	98.644		
Total	23940.634	45			
Corrected Total	5591.288	44			

Summary of PCL-R findings

The PCL-R findings support for the differentiation of the severe mentally ill (SMI) and the personality disorder (PD) groups, with the PD groups scoring significantly higher on each of the factors and the total Hare PCL-R scores. It should be noted that the two diagnostic groups do have clearly overlapping distributions of PCL-R scores. Sexual offenders are also found to score more highly on the Factor associated with 'selfish, callous and remorseless use of others' as well as total scores.

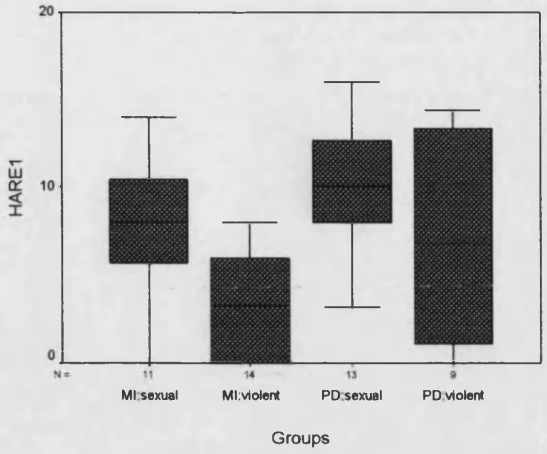


Figure 13 Boxplot of PCL-R Factor 1 score against diagnosis and offence type

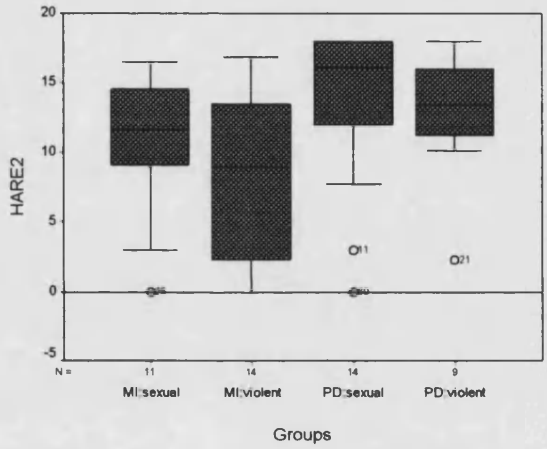


Figure 14 Boxplot of PCL-R Factor 2 score against diagnosis and offence type

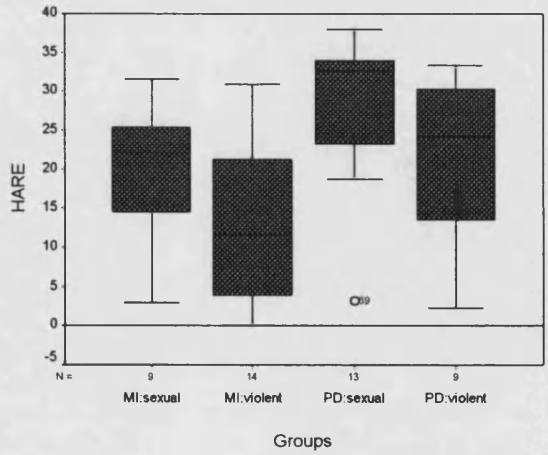


Figure 15 Boxplot of PCL-R Total score against diagnosis and offence type

Discussion of demographic results

In summary, the examinations of demographic information show that in this sample, the group of participants with violent offences and those with PD are younger when they commit their index offence and this remains the case for the PD group at admission and interview. The SMI group of patients have been admitted to their current high secure placement for longer than the PD group. The PD offenders show higher IQ scores than the SMI group, although the SMI group have more educational qualifications than those with PD. The violent offenders show higher IQ scores than the sexual offenders. Sexual offenders in this sample are more likely than violent offenders to have ever been married. Finally, as reported above the PD group score higher than the SMI group on both Factor 1 and Factor 2 of the PCL-R revised and on the total score. Interestingly sexual offenders score higher than violent offenders on Factor 1.

The question of whether any findings about the groups may lead to sample bias must be considered. Firstly, although the raw scores of those included in the final groupings and those who refused or were excluded for other reasons appear to suggest fewer exclusions in the PD group, this difference, though quite large, is not statistically significant. From the data available it is not possible to ascertain whether any other consistent differences may have existed between those who were included in the final groupings and those who were not.

In retrospect it may be that an over-simplified approach to consent was taken and that more information could have been gleaned about those people excluded from the comparisons. Future studies might consider using varying levels of consent such that those people who refuse full participation may be approached to request that demographic data from file notes might be used for comparison purposes, even if consent to participating in interviews is not given.

There are some results in the examinations of demographics that are of particular interest. For example, those relating to IQ and the PCL-R scores. Whether these results should be regarded as bias or findings is a complex issue. The result that participants with SMI were found to have lower IQ than those with PD is not entirely surprising. Studies suggest that people with schizophrenia (the diagnosis of the

majority of the participants in the SMI group) often show cognitive impairment (Seidman et al 2002; Kremen et al 2001) and have poorer performance on IQ tests than pre-morbid performance would predict (Kremen et al 2001). The fact that the violent offenders in this sample score higher on IQ testing than the sexual offenders is interesting as there is little evidence in the literature on this point and the evidence that does exist is equivocal. For example Dolan et al (2002) found no differences when they compared a group of violent offenders, sexual offenders and arsonists from a Special Hospital population on cognitive functioning and IQ testing. Vera et al (1979) found that although violent sexual offenders (rapists) scored lower on IQ testing than comparison sample of non-sexual violent offenders and non-violent offenders, this did not reach statistical significance. Finally, in the sample under study, no statistically significant interaction was found for diagnosis and offence type, but there was a trend for the violent PD offenders to score higher on IQ. As attachment security has sometimes been found to have a moderate association with IQ (Crowell et. al. 1996), this is an area that would benefit from further investigation. In addition comparative studies between Special Hospitals and prisons would reveal whether the differences in IQ found here were chance findings, were related to a consistent difference in those participants excluded from or included in the analyses or whether IQ is an unacknowledged factor that influences 'disposal' decisions regarding placement of sexual and violent offenders with PD or SMI diagnoses.

With regard to the findings on the PCL-R, these provide some validity for a difference in personality functioning between the SMI and PD groups with the PD group showing statistically significantly more psychopathic traits in this sample. The additional result that sexual offenders score higher on Factor 1 of the PCL-R is noteworthy. As described above, this factor rates 'selfish, callous and remorseless use of others' whereas Factor 2 is more concerned with instability and socially deviant lifestyle. It might be argued that the nature of sexual offending is one in which there is direct 'use of others' for sexual gratification. This question of 'using' others is less clear in violent offences unless features such as sadism are explicitly present. This possibility would obviously need to be the subject of further investigation.

It is therefore not clear whether the results regarding IQ and the PCL-R are 'biases' or 'findings' and as such it would not be appropriate to use these variables as co-variates

in any subsequent analyses as to do so, might vary out a group difference. Further research work with larger samples is clearly needed.

Although the demographic information above presents a picture of important differences between groups on some dimensions, it does not give a very clear picture of the individual patients themselves. Clearly, there is important variation between patients and some clinical vignettes are presented below to give the reader a more comprehensive idea of the types of patient being described. As some participants are easily identifiable, summaries of the background features of all the participants cannot be included but a few exemplars are given. Additionally some themes that appear in the different sub-groups after examining the baseline information are offered.

Case vignettes and group themes from the case data

Violent - Severely Mentally Ill

These participants are often reported to have had very chaotic and disrupted upbringings with a number of caretakers and placements. Sometimes there is severe marital discord or parents with significant problems, e.g. mental illness, prostitution. Violence is common as is experience of institutional care. More than the other groups, some participants appear not to have any key attachment figures. There is less sexual abuse than in other groups and where it exists, it appears more likely to be with a stranger.

Examples:

At interview Mr U (#33) was a 39 year old white single man with an IQ of 74. This was thought to be an underestimate and was lower than previous NART scores indicated. Mr U was diagnosed as suffering from schizophrenia according to DSM-IV criteria. Mr U's parents came from eastern Europe and his mother had been held in a concentration camp. Mother had a history of mental illness and father is noted to have had bizarre beliefs. Mr U was brought up in the care of a catholic convent from the age of 2. He was subsequently expelled from boarding school. He converted to a different faith in adulthood and his offence was the murder of a family of this faith who had befriended him.

At interview Mr V (#67) was a 40 year old white single man with an estimated IQ in the region of 90. There was some evidence of mild neurological problems at neuro-psychological testing. He was diagnosed as suffering from Schizophrenia according to DSM-IV criteria. Mr V's mother was married three times and divorced his father when Mr V was 7 years old because of cruelty. Mr V has seven half siblings (four from his father and three from his mother). He spent periods in care from the age of 7. Mr V's step father was vindictive and violent to him, though not violent to the same extent to the other children. Mr V has a varied history of offending and attacked a woman stranger in the context of being angry with his sister.

At interview Mr W (#86) was a 38 year old white single man with an IQ of 108. Neuro-psychological testing was commensurate with IQ. Mr W was diagnosed as suffering from a bi-polar schizo-affective disorder. Mr W had a history of enuresis until the age of 8-10 years. His father was volatile and was violent to Mr W. Mr W was noted to be disturbed by the parental discord and Mr W's father left when he was age 3 and Mr W was mute at school until the age of 8. Mr W was placed in care when he was 15 years. Mr W has been in trouble with the police since very young and has been threatening to his family, and his carers in Borstal and hospitals. He has required intensive supervision for many years. Despite this he is well liked.

Sexual - Severely Mentally Ill

Parental separation is common though there appears to be less reporting of violence and multiple carers. Precocious sexual experience or experience of sexual abuse is common.

Examples:

At interview, Mr F (#12) was a 30 year old white single man with an IQ of 99 and a neuro-psychological profile commensurate with IQ. He met DSM-IV criteria for schizophrenia and showed some anti-social personality disorder traits in adolescence that now seem to be linked to a developing mental illness. There is a family history of mental illness and sexual deviation. Mr F was troubled by his father leaving the family home when Mr F was age 7 and by his father subsequently leaving his second wife and two daughters. Mr F says he was sexually abused by strangers as a child. His offences were of abduction and sexual assaults on young girls.

At interview Mr G (#136) was a 51 year old divorced Afro-Caribbean man with an IQ of 86. Neuro-psychological testing revealed difficulties in articulating complex thoughts. Mr G met criteria for paranoid schizophrenia according to DSM-IV. There is evidence of anoxia at birth. Father left immediately after birth. Mr G moved to the UK at the age of 12. He has no history of conduct disorder, but would otherwise meet criteria for anti-social personality disorder.

At interview Mr H (#144) was a 26 year old single man with an IQ of 79. He met DSM-IV criteria for paranoid schizophrenia and also had evidence of antisocial and borderline personality disorder. The personality disorder appeared insignificant in comparison with his mental illness. Mr H's father had alcohol problems, is described as very jealous and was unfaithful and violent to Mr H's mother. Mr H's parents separated when he was four years. Mr H was looked after by his father and father's friends. He was in care from the age of 14. Subsequently Mr H's father murdered his second wife and killed himself in the fire he set whilst trying to cover up the evidence. Mr H's mother's half-brother murdered her step-father. Mr H is described as being precociously sexually active for emotional support.

Violent - Personality Disorder

Maternal rejection and neglect appear common in this group, as is parental cruelty. The sexual abuse reported is relatively often reported to be abuse of the subject or his siblings by fathers or step-fathers. There is a high proportion of matricide and patricide in this group.

Examples:

At interview Mr N (#13) was a 31 year old white single man with an IQ of 112. Mr N met criteria for antisocial, paranoid and avoidant personality disorders according to DSM-IV. He was born in SE Asia only 10 months after the birth of his brother. He failed to bond with mother and was rejected by her for failing to show affection. He was punished violently as a child by his parents. He is reported to have stolen from his parents and others as a child and was in care at the ages of 9 and 14. His offence was of attempted murder of a female stranger.

At interview Mr O (#100) was a 20 year old Afro-Caribbean single man with an IQ of 102. Neuropsychological testing was commensurate with IQ. Mr O met criteria for borderline and anti-social personality disorders according to DSM-IV. He had a long history of physical and emotional neglect by mother. There is some suggestion of sexual abuse in childhood. Father left before he was born and Mr O has met his father only once at the age of 5. He had a good relationship with step-father, but had limited contact after the break up of the marriage. Step-father has now died. He had long periods of being on the "at risk" register and spent time in residential educational placements. His offence was matricide.

At interview Mr P (#109) was a 33 year old single man of mixed race (father was Afro-Caribbean, mother white British). He met criteria for antisocial and borderline personality disorders according to DSM-IV. His records show an horrific history of abuse and neglect. Actively burnt by parents at the age of 2 and subsequently cared for by maternal grandparents and aunt who were also abusive. Mother had a history of alcohol and drug abuse and of epilepsy. Mr P was eventually placed in care. Mr P has a history of poor relationships, particularly with women, but did manage to sustain a 7 year relationship of some stability.

Sexual - Personality Disorder

This group appear to have more experience of sexual abuse in a broader context (within the family, including siblings, and with known and unknown others). It is sometimes endemic in families. Enuresis is more commonly reported. Paternal absence, rejection, distance and aggression are also often reported.

At interview, Mr A (#29) was a 44 year old white married man with an IQ of 90. He had left school at 16 with no qualifications. Neuro-psychological testing suggested poor response control and impulsivity. He met criteria for anti-social and borderline personality disorder according to DSM-IV. Mr A had a history of enuresis until the age of 14. His father, who had been in the Merchant Navy until Mr A was 10 years old, had a history of violence to the mother. The parents separated when Mr A was 11. Mr A then moved into the care of the maternal grandparents. Mr A had a history of sexual and non-sexual offences and spent time in Youth Custody where he was a victim of homosexual rape. His more recent offences were of rape.

At interview Mr B (#108) was a 27 year old white single man with an IQ of 84. His neuro-psychological profile was commensurate with his IQ and showed no unusual features. However other psychological testing showed evidence of "suggestibility". He met criteria for anti-social, borderline and dependent personality disorders according to DSM-IV. In his history he was described as a "slow developer" and went to an ESN school where he had behavioural difficulties. He is described as being close to mother who divorced the father when Mr B was age 5. She subsequently re-married twice. He was rivalrous with and aggressive to his brother. Mr B says that he was the victim of sexual abuse from his father, a neighbour and the local vicar.

At interview Mr C (#119) was a 40 year old white divorced man with an IQ of 86. Neuro-psychological testing suggested poor problem solving strategy. He met criteria for borderline and dependent personality disorders according to DSM-IV. Mr C had a history of enuresis until the age of 9. He was abused by his brother between the ages of 5 and 10 and subsequently by his sisters between the ages of 6 and 14. Mother was violent to him, although father is described as gentle. Mother died when he was 15 years. He has a long history of escalating sexual offences from the age of 13 years.

Chapter 5: Methodological approaches

Introduction

The approach chosen to address the questions posed in this thesis is a multi-model, multi-level one. The different levels refer to the measures used which correspond to different theoretical models. These measures reflect the move from attachment and object relations functioning (which draws on unconscious processes) through an intermediate level drawing on self observation by the participants through the use of a repertory grid, to the more conscious interpersonal domain.

These levels of examination were applied to the whole participant pool of Mentally Disordered Offenders (MDOs). There were also three perspectives created by comparisons that were explored statistically. The first involved an "external" comparison between results from the MDO respondents in this study and existing data in the literature from other, generally less disturbed, clinical populations, and from non-clinical populations. This was carried out for the first level of data (from the AAI) and the last (from the IIP questionnaire) but not for the repertory grid since the grid used was designed specifically for this study (aligned somewhat to the AAI).

The second set of comparisons, central to the sampling frame and design of the study, were the "internal" comparisons where the measures employed evaluated characteristics of the two main comparison groups, that of sexual and non-sexual violent crime. This was crossed with the less central comparison between diagnostic groups which are also presented and explored for evidence of confounding effects.

The final set of comparisons were also "internal" but not those embodied in the central, two-by-two, design, in which other subgroup differences were explored led by their theoretical interest.

Measures

Three measures were chosen to examine the range of attachment and interpersonal functioning: the Adult Attachment Interview (George, 1985) (Main et al., 1991),

Reflective Function (Fonagy, Steele, Steele, & Target, 1997a) a Dyad Repertory Grid and finally, the Inventory of Interpersonal Problems (Horowitz et al., 1988).

1. The Adult Attachment Interview (AAI). This is a measure of security/insecurity in Adult Attachments and specific attachment styles. The ratings are taken from analysis of a semi-structured interview and are applied to a number of sub-scales.

2. Reflective Function. This is a measure derived from the metacognitive monitoring rating scale of the AAI, that rates the capacity of the interviewee to reflect on their own and others' experience. It is a rating that is applied to Adult Attachment Interview transcripts but its logic and rating method was developed after the original design of the interview and complements the categorical and scale scoring of the measure. Its theoretical interest goes beyond that of the AAI to the role of "mentalising capacity".

3. Dyad Repertory Grid. This also uses participants' self report of their view of their relationships on specific constructs, but rather than a generic appraisal of relating, the grid addresses specific relationships of interest. It also asks the participants what they imagine the other person's view of them would be. Although self-report, this measure has an opaque, or at least, tangential, aspect to it which may make it less vulnerable to deliberate mis-presentation of self (for example "faking good" and "faking bad"). It may also make it a more direct measure of self-perception and perhaps less vulnerable to a person simply having a view of themselves and their relating that is hard to reconcile with others' views of their relating.

4. Inventory of Interpersonal Problems. This is a self-report measure and gives a score that is based on the participants' own judgement of their difficulties in interpersonal relationships.

A full review of these measures will be given in the relevant chapters, however, the measures are described in somewhat more detail here to illustrate their mapping to different "levels" in the study design and the argument that they relate to three rather different theoretical frames of understanding of offending. The predictions applying to the

measures, which have been based on those theoretical frames, are stated above in Chapter 3.

Adult Attachment Interview

The Adult Attachment Interview is probably the most widely used measurement of adult attachment. The interview itself was devised by George, Kaplan and Main (1985) and the rating system was first published in 1991 (Main and Goldwyn, 1991) and has been refined somewhat further over the following years. The AAI is a semi-structured interview schedule that consists of 18 questions and a number of specified probes that relate to living circumstances; descriptions of the early relationship with mother and father, behaviour at time of stress or difficulty in childhood, feelings of rejection or threat, experiences of abuse and loss, as well as some questions that provide an opening into the way the participant makes sense of their early experiences and their parents' behaviour.

Although all questions are important, there are two central domains of information: the first focuses on the adjectives used to describe the relationship with the parent and the memories associated with these adjectives; the second focuses on early loss and trauma and the behaviours associated with these. As well as these foci, there are two broad perspectives within the rating system– 'scales for experience' and 'scales for states of mind'. The scales for experience refer to inferred parental behaviour during childhood. In contrast, the scales for states of mind are based more explicitly on the interview as current data and on the 'form' rather than the 'content' of the interview. They are used to try and assess the participant's current state of mind with respect to attachment. On the basis of ratings on these dimensions the AAI classifications and sub-classifications are assigned. The global rating categories are: secure (called F); insecure pre-occupied/entangled (called E); insecure dismissive (D) and unable to be classified (CC). There are sub-classifications within the first three of these areas. In addition, to this primary classification, transcripts are rated on the participants' response to loss and to trauma. Where this is judged to be 'Unresolved', a classification of 'U' is given. This rating can be thought of as theoretically orthogonal to the other classification groups as it can occur in conjunction with any of the other classifications. The AAI is claimed to tap into a domain of experience and functioning that is beyond the conscious awareness of the participant.

In addition to the standard interview we decided to insert an extra question at the end of the interview. This question specifically related to the person's offending history and his thoughts about whether and how this related to his early experiences. Raters were instructed to ignore this question.

Reflective function

This scale was developed by Fonagy and colleagues (Fonagy et al., 1991) (Fonagy et al., 1995a) (Fonagy et al., 1997b) and is based on the meta-cognitive monitoring subscale of the Adult Attachment Interview. It provides a score of the participant's capacity to reflect upon their own and other's mental states that is demonstrated over the course of the interview. Such awareness may be shown by comments on the existence of different perspectives about the same event; the limits of mental functioning, for example that thoughts and wishes do not equal action; multiplicity of influences on action that the person may not be aware of. It has been suggested that parents with such a capacity are more likely to have children who are secure in attachment terms, than those who do not. It might also be suggested that there may be an overlap between this capacity and the capacity for 'reverie' as described by Bion (1962)

Dyad Repertory Grid

The Repertory Grid was devised by Kelly (1955) in order to examine the way an individual sees their world. Kelly saw individuals as "personal scientists" and thought that an approach to their construing of other people and ways of seeing the world, (personal) constructivism, was essential to understand personality. Although rooted in Personal Construct Theory and Psychology, repertory grids can be used independently of their theoretical origin. Indeed, they have been suggested as a potentially appropriate tool to complement psychodynamic formulations (Brown, 1990a; Brown, 1990b) and to explore the notion of transference and its interpretation (Ben-Tovim & Greenup, 1983) (Crisp, 1964). The Repertory Grid provides a rare combination of an idiographic approach with

numerical measurement. Although elements can be elicited, they are most often provided to the participant in the form of role titles (e.g. self, mother, best friend, therapist). Constructs, on which the elements are rated, can be elicited or supplied. The elicitation process retains centrality for the individual's own subjective view that was at the heart of Kelly's ideas and is often staunchly championed within personal construct psychology. However, if there is a domain of interest that is specified, for example in a research project, then supplying constructs allows particular questions to be asked about constructs that are judged to be relevant to that domain of interest. This method of supplied constructs was used for this grid.

The grid method of collecting self-appraisal had a particular logic for this population since it has been argued that personality disordered people, and perhaps particularly MDOs, have, or commonly have, a generic failure of self-appraisal. However, clinical experience and some theoretical perspectives suggest that they may be less challenged or self-deceiving about their individual relationships than about generic self-characterisation. A particular capability of the grid, not offered by the IIP or other routine questionnaire methods, is the possibility to look at the similarities or differences in the ways a person construes particular others on each construct, and at the commonalities and differences of attitude to particular relationships on the constructs. As well as providing an internal set of contrasts not present in "flat" questionnaires, this also provides an element of opacity or tangentiality since these contrasts and analyses are not immediately available to the awareness of the participants and are quite hard to manipulate other than quite crudely even if perceived.

The Dyad Repertory Grid used in this study is a specific form of repertory grid in which the elements are relationships not individuals. Participants are asked to rate on the constructs according to how they view a specified "other" (e.g. mother; victim) and, in the form of dyad grid used here, also then on how they perceive that "other" views them. Hence the grid's elements are a set of pairs e.g. "self to mother" and "mother to self". The second of the element pairs in the Dyad Repertory Grid therefore offers a viewpoint on the participant's capacity to reflect upon another's view that may be different from their own. This requires some degree of flexibility of thinking in itself. Furthermore, a capacity to

discriminate between these two directional aspects of a relationship may be an indicator of a capacity to tolerate ambivalence could be examined in relation to secure/insecure classification on the AAI and to reflective function.

As noted, grids are somewhat opaque, which means that particular patterns of responding can be examined where they emerge; for example, where particular pairs of elements or constructs are responded to in similar ways, or indeed where an inverse response set exists. Since all the elements and constructs in the Dyad Grid employed in the present study were supplied it is possible to compare participants and groups of participants at all levels of the grid data: raw ratings, element and construct summaries and overall parameters.

The elements were chosen to represent key relationships in the person's life that most participants would have experienced. The elements were restricted to six relationships as each relationship requires two response sets and it was important that the size of the grid was not too large. The constructs were based on those previously found to be useful with sexual offenders (Houston & Adshead, 1993) (Houston, 1998) and on constructs of experience judged to be relevant to attachment. These constructs were directly related to those used in the scales of experience on the AAI rating system so that direct comparisons could be made for mother and father between the inferred experience of the rating on the AAI and the self reported experience of the participant on the dyad grid. A copy of the grid can be found in Appendix 1.

Inventory of Interpersonal Problems

This is a self-report measure in which the participant rates the degree to which they experience a large range of interpersonal problems. It is divided into two areas: things that the participant does *too much* and things that they find *hard to do*. There are 127 items that can be sub-grouped into scales according to a variety of scoring systems. It is widely used by psychotherapy researchers as a measure to assess improvement in interpersonal relationships, however, its utility has not been defined in a population of mentally disordered offenders.

The IIP was developed by Horowitz et al., (1988) as the literature indicated a need for a reliable instrument that provided information about difficulties in interpersonal relationships. This was felt to be a deficit in social psychology research and in psychotherapy research, especially as psychotherapy is concerned with interpersonal relations and difficulties that arise from them. It is well known that many Mentally Disordered Offenders experience interpersonal problems and the range of interventions in forensic psychology, psychiatry and psychotherapy reflects this: particularly with regard to social skills training and assertion training. A measure that records difficulties in these areas and change resulting from intervention is therefore needed. As set out in the literature review, the thesis of this present study is that the experience of relationships is different in the two groups classified according to sexual violence and non-sexual violence. It was not felt that specific directional hypotheses could be made about the likely performance of the two groups on the various subscales, so it was decided to test the null hypothesis of no difference on the various scoring systems when comparing the sexual and non-sexual offenders and the SMI and PD groups.

Design and procedure

The participant groups chosen have been presented in detail in Chapter 4. Having established the inclusion/exclusion criteria for these and the levels of measurement and the measures to be used, the procedure was as follows.

Research and Ethical Issues

The protocol was submitted to the Broadmoor Hospital research and ethics committee and approval was obtained to proceed. Establishing informed consent from mentally disordered offenders in settings such as a Special Hospital is inevitably problematic as patients feel that their compliance or refusal may be interpreted as indicative of their attitude towards treatment per se (Evans, Carlyle, & Dolan, 1996). Great care was taken in the procedures to minimise such possible difficulties.

Procedure

All potentially suitable patients in the hospital were identified. Their clinical teams were then asked for permission to approach the patients on a ward by ward basis. If this was forthcoming, then patients were asked if they would be prepared to consider participating in the project. They informed their key nurse (a person who is generally well known to the patient and trusted) of their decision and if they were willing an appointment to meet the patient was set. At this meeting the project was briefly described and the nature of the measures to be used including the tape recording of the interview was set out. If the patient was still willing to proceed then the appropriate consent forms were discussed and signed. All information was kept confidential to the research team unless specifically requested otherwise by the patient. Some patients asked for feedback about the project. A list of patients who wanted this information was compiled and it was explained that due to the ratings of interviews this may take some time.

Setting variables

The meetings with participants took place in their own ward environment. This was not ideal either for recording purposes or in terms of providing a setting where distractions could be kept to a minimum or monitored. However, interviewing in an independent setting would have required resources of at least two escorting staff for each patient and would have severely limited the times available to interview patients as escorting is only available between limited hours and is dependent on sufficient staff being available on the ward. All wards had an interviewing room that could be used. However, loud noises on the ward such as hoovering, loud discussion or arguments between other patients and so on, did mean some distractions at times. All interviews were carried out with only the interviewer and participant present. This was thought to be important as confidentiality would be compromised by presence of a member of the clinical team. With a few patients who suffered from a disturbed mental state that might leave them vulnerable to acting out in a violent way, a member of the nursing team sat outside the interview room.

The AAI was carried out first and the other two measures (IIP and DRG) at a subsequent meeting. This was because it was felt that all three measures in one sitting would be

onerous for patients. One patient declined to meet for the second time but informed the team that he was happy for the AAI to be used. One interview was stopped early as the patient was not able to attend to the interview questions and became pre-occupied with talking about pornographic material and it was not thought to be in the patient's interests to continue. On completion of all data collection from patients, a letter was sent to them thanking them for their participation.

Participant selection

Patients eligible for the project were initially identified by the Section of the Mental Health Act (HMSO, 1983) that they were held under and their index offence. Where the index offence was sexual, this defined their inclusion in the sexual offending group. Where the index offence was violent but not sexual, files were examined to ensure that there was no sexual offending history that would distort the groupings. For example, a violent rape that results in murder would be classified as homicide rather than rape in the records. The criteria for exclusion from the violent group are defined in Chapter 3. A data sheet was devised that included basic demographic information that was available on file including IQ. Additionally comprehensive social work reports were examined to establish the history of separations and disruptions in early child rearing. This data was collected independently of the interviewing.

After all interviewing was completed, the author reviewed all files to carry out case note reviews of diagnosis according to DSM-IV guidelines and by using the Hare PCL-R. The protocol for this can be found in Appendix 2. This was felt to be necessary as the MHA (1983) classifications of Mental Illness and psychopathic Disorder are broad and do not fully ally with DSM-IV or ICD-10 psychiatric classifications. Due to the convention of using the MHA (1983) categorisation and high co-morbidity these psychiatric diagnostic are often not reported on file. The use of the PCL-R was viewed as a partial validity check that the SMI and PD groups did in fact differ on measures of severe personality disorder characterised by psychopathic traits. Further information about this is given in Chapter 4. In addition, all files were reviewed to double check the accuracy of sexual and violent offence groupings and core demographic data. This process led to some exclusion of participants.

Data entry, transcribing and rating

All data was double entered. First entry by the research assistant and second entry and checking of any discrepant entries by the author. Transcribing was done according to guidelines developed by Main and colleagues by a number of secretaries skilled in audio typing. These transcripts were then reviewed and corrected by the author. This was an extensive process taking about three hundred hours but deemed to be essential to ensure accuracy of the transcripts since AAI ratings can be made on the basis of single words, for example, present vs. past tense; exact nature of derogating comments; and so on. Even experienced audio typists requested to transcribe what was said, not to "translate" it into correct English find it almost impossible to resist secretarial training and experience that has encouraged "improving" dictation. This was the found to be the case in this study. Ratings were made by two experienced AAI raters who had achieved full reliability on both AAI rating training and RF training and who were blind to the group membership of the participants. Funding that supported the rating, the costs of some of the transcribing, the employment of an interviewer and research assistant to assist with data collection are set out in Appendix 3.

Statistical Methods

The overall thrust of the statistical analyses in the thesis is exploratory. This is despite the quasi-experimental two-by-two design at the heart of the sampling and the 'internal' contrasts, which might seem to indicate a strong inferential approach and rigorous interpretation. However, there are many complexities in the nature of the data even for the clearest contrasts. Particular complexities include the relatively low sample size which gives only moderate power to detect mild to moderate effects; non-Gaussian variables but a two-by-two design for which non-parametric analyses are not readily available; unbalanced group sizes; presence of strong, potentially confounding, associations between groups and many demographic variables; multiple, theoretically and empirically distinct but strongly associated dependent variables.

For the internal comparisons, inferential tests are used and a conventional criterion of statistical significance, p.05, is used throughout. However, this is used as consistent guide rather than as definitive "statistical significance"/"not significant". Corrections for multiple testing were not applied as none would have applied robustly to these data in this design and it would have been extremely difficult to decide what sets of tests were to be included in a family, and what were, *a priori*, in another.

Where one categorical variable is analysed against another, the exact significance of any deviation from the null hypothesis of no association is reported. Where a binary categorical variable is analysed against two crossed variables (e.g. in the main two-by-two design), binomial logistic regression results are reported. Where a continuous variable is analysed in the main two-by-two design, the two-way ANOVA is reported though most dependent variables showed obvious deviation from Gaussian distribution (the exceptions being some of the IIP scores). Where measures were markedly non-Gaussian, a Mann-Whitney test against one or other categorical is sometimes reported to provide some check on the parametric result. Where a continuous variable is tested against a single categorical variable, the t-test is reported are reported except where the data are obviously non-Gaussian, in which case the Mann-Whitney test is reported. In no case of non-Gaussian distributions, which often had limited response options or were markedly skew or bimodal, was it possible to produce Gaussian distributed transforms, obviating the need for such an approach.

Where readily available from the statistical software used, 95% confidence intervals for effects on continuous variables are reported as well as p values in order to provide a clear and consistent indication of precision of estimation of effects. Despite non-Gaussian distributions of many continuous variables, the confidence interval for the mean based on Gaussian distribution theory is reported. This may not be much less unbiased and efficient than the apparently more appropriate non-parametric confidence interval for the median given how many unknown factors influence the substantive effects that are estimated. Furthermore, using the confidence interval for the mean even for 'internal' comparisons gains coherence with the 'external' comparisons with referential data from the literature,

since only the confidence interval for the mean can be calculated for such data (based on the reported n, mean and standard deviation).

The majority of the 'internal' analyses were conducted using SPSS version 10.0.7 on a Windows 2000 platform. A few very repetitive analyses of IIP scores, and some graphical presentations of results were produced using S+ 2000 on the same platform and based on importing the same double checked SPSS data file from SPSS to the S+ program. Analyses against external data in the literature were conducted by double checking data entry of the referential data into Excel spreadsheets then importing those into S+ for all analyses against the data from the MDO sample or subsamples.

Two types of boxplots are used. The majority of boxplots for 'internal' contrasts are simple boxplots from SPSS in which the box, as is conventional, extends from the lower to the upper quartile and a horizontal line marks the median. Whiskers extend to the maximum and minimum for the distribution unless there are outliers or extremes which are marked as individual points, beyond the ends of the whiskers. An outlier is an observation more than 1.5 times the interquartile range (height of the box) from the end of the box and extremes are more than 3 times that distance from the end of the box.

'Notched' boxplots produced by S+ are used to depict some distributions. These depict both outliers and extremes as horizontal lines rather than as points and they also indicate the 95% confidence interval for the median as a "notch" into the box. Given the small size of some of the subgroups, these sometimes extend beyond the actual box creating an odd looking geometrical figure but retaining the usual interpretation once this is understood.

Most of the statistical analyses were run by Dr. Evans and chosen after consultation with Professor Hobson and Dr. Evans. Ultimate responsibility for the choices is taken by the author.

Chapter 6. Adult Attachment Interview

Background

Following Bowlby's original work (Bowlby, 1944a; 1944b), researchers have again started to use attachment theory and research tools to look at the role of attachment in a forensic population. The main instrument in use is the Adult Attachment Interview (AAI), devised by (George, 1985). It was originally developed in the context of work by Ainsworth and others on attachment in children. Ainsworth et al's., (1978) work led to the Strange Situation Test in which an infant's reactions to reunion with the parent following separation and exposure to a stranger are classified. Main and colleagues were interested in investigating the attachment capacities of parents who had been previously been involved in Strange Situation research. The AAI was the instrument developed. The early research showed high correlations between parents' AAI classifications and their children's Strange Situation classifications. Subsequent research has largely confirmed this and there is a growing body of data on the predictive correlations between parental AAI classifications and children's' attachment status on the Strange Situation.

The AAI is a semi-structured interview that has been briefly described in the methods section. The interview takes between forty-five minutes and one and a half hours. It asks for general information about the living circumstances of the interviewee when they were a child, including contact with caregivers, siblings and extended family. It then asks the participant to select five adjectives to describe the relationship between them and their key caregivers, taking each relationship in turn and asking participants for a specific memory to describe why each word was chosen. The interview then focuses on key points of stress, anxiety or difficulty in childhood, asking about the responses to being upset, ill or abused as well as key losses in childhood and adulthood.

The interview and its coding system were developed with a normal population and responders were found to fit one of three major classifications: secure; pre-occupied/entangled; and dismissive. In secure subjects, attachment relationships are valued and regarded as influential but the subject appears objective in evaluating any particular relationship and its influence. Their comments are coherent and generalised

descriptions supported by specific memories. The interviews of pre-occupied or entangled subjects are often long and rambling, marked by passive or pre-occupied thought processes. The influence of early attachments is rarely dismissed but although attachment is often valued, it is rarely coherently described. There may be some oscillation between positive and negative evaluations. Dismissing subjects actively dismiss the importance of early attachment experiences on their personal development. Autonomy is valued and there is often an attempt to minimise the influence and importance of attachment figures or relationships. Scripts may be marked by idealisation, denigration or dismissal of attachment experiences. Each of these major classifications has within it sub-categories which describe a more particular form of the major classification. This allows for some range in each of the classifications, for example, a person may be secure in general terms, but also be somewhat pre-occupied, perhaps by a sentimental involvement with parents; another may be dismissive, but in a way that is restricted in feeling rather than actively denigratory; or another may be pre-occupied in a way characterised by anger as opposed to passivity. These subcategories are set out in Appendix 4.

Two further classifications, extending the basic secure / dismissive / preoccupied classification, have also been described. Firstly, transcripts or interviews characterized by a lack of resolution of a particular loss or traumatic experience, are given an additional classification of Unresolved (sometimes referred to as "disorganized", which links with one of the classifications on the Strange Situation). This classification is always accompanied by one of the three major classifications. Secondly in 1996, Hesse, (1996) reported the use of another category, Cannot Classify (or CC), which had arisen after a number of transcripts had been identified that did not fit the classification system as it was. Sometimes this was because they contained key characteristics of different classifications that were normally thought to be incompatible, such that it was impossible to nominate a primary classification, for example evidence of both pre-occupied thought processes and denigratory comments. Other transcripts did not have overt evidence of an insecure sub-classification, but were judged so low in coherence that they could not be placed in the secure/autonomous category. Hesse reports the higher percentages of Cannot Classify ratings in maritally violent men, violent offenders and sexually abused women. The violent offenders he refers to, are from the van IJzendoorn et al., (1997) study where over

half of the sample had a primary classification of Unresolved or Cannot Classify (these two categories were merged in the results) and where ninety per cent of these Unresolved/Cannot Classify subjects had been raised in institutional care. This finding of a high proportion of CC transcripts is supported in Levinson et al., (1999) where 31.8% of a prison sample were coded as Cannot Classify.

The rating system for the Adult Attachment Interview employs two sets of scales, scales for experience and scales for states of mind. The scores for the scales for experience are rated on the participant's report of their relationship with parents. Although these are rated on the content of the participant's descriptions, they are necessarily subjective accounts and are not corroborated with others' judgements or factual reports from childhood. The scales for the states of mind however are rated according to the 'form' and 'process' of the participants' descriptions. A copy of the rating scale and brief descriptions of each of the scales can be found in Appendix 5.

Perhaps because the system was able to reliably describe some individuals who were struggling with their relationships and attachment capacity, and strengthened by the relationship that was found with the Strange Situation, the Adult Attachment Interview began to be used by researchers looking at clinical populations. Atkinson, (1997) presents work that has brought together these areas. One of the consequences of this has been a recognition of the greater importance and prevalence of CC and Unresolved/disorganized classifications.

Rutter, (1997) has provided a thorough critique of the developments and work in attachment research. He takes issue with some more extreme claims about what can be inferred from an attachment classification and points to the inadequacy of attachment theory, and particularly the AAI, to provide an entire and sufficient account for psychopathology or to be a theoretical model that has inherently within it, the strength to be so influential a variable. The multi-modal approach of this thesis addresses some of these criticisms. In his support of Bowlby's original work, Rutter highlights the importance of differentiating attachment from other aspects of behaviour and placing it within the framework of normal developmental processes, with some biological basis. He

also notes the linking of the development of attachment to 'internal working models' and the importance of this for developmental progress in normal functioning as well as psychopathological functioning. This mechanism also allows for the potential for change.

Rutter notes a number of areas of continued challenge, for example: the cultural specificity of attachment and the implications of this for measurement; the role of temperament; the over-simplification of insecurity as a model to understand abnormal development and psychopathology; the difficulty of using these concepts to specify the mechanisms of development and change. Perhaps linked with these points, work by Dozier et al., (1997) suggests that for psychological disorders with high degrees of heritability, less in the way of unfavourable care-giving is necessary for the disorder to emerge and suggests that this may have implications for both diagnosis and treatment. Another criticism that Rutter makes is the 'extension' of attachment theory to understand sexual relationships, arguing that the fact that some sexual relationships do not show attachment qualities, argues against this approach. He notes that attachment should not be thought of in categorical terms but as a quantitative variation and he challenges that way that the concept is often used to refer to an individual rather than a relationship. The limits of what can be ascribed to insecurity of attachment are borne out in the fact that the relationship of early caregiver experience and later functioning is found to be only moderate in strength and is one factor of influence among others that include; genetic endowment, peer influences, social deprivation. Lieberman, (1997) also sets out the limitations in our current knowledge about how the mechanisms by which attachment representations are transmitted trans-generationally. Methods need to be developed and expanded that examine the impact of the parent's attachment behaviour on the child as well as the way in which they make other interpersonal attributions. Such work will provide building blocks for understanding the manner in which the child internalises such experiences. As Rutter suggests "what is needed now is a bringing together of attachment concepts and other formations of relationships so that each may profit from the contributions of the other".

The coding system for the AAI was developed in a normal sample which raises questions about its use in clinical and other abnormal samples. However, the sub classifications for resolution in response to loss and trauma are clearly of interest for many psychiatric

clinical samples, where such experiences are common. One example of where the association of attachment classification with specific clinical pathology is set is described by Steele & Steele, (in press). They bring together some of the findings that link borderline personality disorder with the pre-occupied/entangled form of insecurity and also with a lack of resolution of loss and trauma using findings by Fonagy et al., (1996); Patrick et al., (1994) Interestingly, in the Patrick paper there was specifically a high incidence of one 'pre-occupied' sub-classification, E3, which is usually relatively rare. E3 denotes a transcript that is marked by passages that are overwhelmed and fearfully pre-occupied. Another clinical sub groups that has been linked to specific attachment classifications are eating disorders. People with eating disorders have been found to have a high proportion of Unresolved and insecure dismissive transcripts (Cole-Detke & Kobak, 1998), (Fonagy et al., 1996). In another study, suicidality was associated with transcripts that are Unresolved and pre-occupied (Adam, Sheldon-Keller A.E., & West M., 1996). Two forensic studies cited earlier (van IJzendoorn et al., 1997) (Levinson et al., 1999), both show high levels of reported abuse and elevated prevalence of insecurity in the forensic offenders and in a study that looks at violent behaviour, Cole-Detke et al., (1998) note that they found Unresolved trauma to be a risk factor for abusive parenting, psychopathology and marital violence. They report studies that support the idea that maltreatment in childhood is associated with certain types of aggression in adulthood, for example marital violence and criminality and suggest that the Unresolved category may act as a mediator in this relationship.

The use of a standardised measure in a population clearly differing markedly from the standardisation population, raises procedural questions in addition to questions about applicability of norms. Turton, McGauley, Marin-Avellan, & Hughes, (2001) note the difficulties knowing how to rate transcripts using the current coding system for losses and traumas, when confronted with histories involving multiple care givers, and extremes of trauma in some people's experiences. For example, the losses that are rated in the current system are those due to death, rather than abandonment or separation. It can also at times be difficult to make judgements about extreme denigratory speech where there is clear evidence that the interviewee experienced extreme cruelty and abuse in the relationship with the caregiver being denigrated. Also, some UK dialects, particularly when spoken by

people who had minimal formal schooling, have speech mannerisms that could otherwise be coded as lapses in discourse, but which may be quite normal for the population of origin. Turton, et al. (2001) also raise the interesting question about the behaviour to the interviewer, which can be observed in the text of some transcripts. This behaviour, for example, aggressive, support-seeking, or asking for validation, might be relevant to both interpersonal capacity and perhaps indicative of attachment behaviour.

With specific samples, for example like the forensic sample for this thesis, there can also be other practical considerations. The interview focuses, at times, on loss and traumatic incidents. For some mentally disordered offenders, these losses may be related to their index offence. For example, important losses in adulthood may be of parents, partner, siblings or children, 'lost' at the hand of the patient. In our study the interviewer did not read the patient's file before interviewing them, to preserve blindness to some of the groupings that are being investigated. However, this meant that she was in a vulnerable position of asking, for example, questions about losses without being sensitive to the fact that the person might be responsible for the loss. To overcome this problem, a research assistant checked the files of the patients that the interviewer was going to see before she met with them, in order that any necessary information could be made available to her without compromising the objectivity of the study any further than necessary. Results for the Adult Attachment Interview will now be presented followed by a brief commentary on separations and abuse.

Results

Approach to data analysis:

Rating of a single Adult Attachment Interview yields a plethora of scores and classifications. Firstly there is the overall classification (F, D, or E) which is generally what is reported in the literature. Within this, each major class has a number of sub-types (F1-F5; D1- D4; and E1 - E3) which reflect different nuances in the style of the person's account, for example a secure person with some detachment (F2). This recognition is further extended by the assigning of alternate classes by raters (e.g. F1/D3, E2/F5, E3/E1). Here, the rater is saying that the transcript is overall more representative of a particular

classification but has strong trends to another. Although the Unresolved rating has sometimes been included as an alternative class in some analysis of AAI data sets, it is in fact 'theoretically orthogonal' to other sub-types of classification and it can co-exist (independently rather than as an alternate class) with any of the other sub-classes. It may well be that it is not methodologically orthogonal to the other classes (for example, an argument can be made that the more restricted transcripts of D cases simply provide less opportunity to find evidence for U type functioning in the way in which it is currently coded) however, it is conceptually different from the F/E/D classification. It may also be that it is empirically associated with the main classification: a common example of concepts which are theoretically orthogonal and not linked by any problems of measurement but which show empirical association, would be height and gender which are theoretically distinct, easy to measure independently of one another, but correlated in most populations. The fact that U has often been treated as an alternative class to F, E and D in many analyses is therefore problematic.

As noted above, another feature of the classification system that has emerged in the last decade has been the recognition of Cannot Classify or CC cases that do not fit the original classification system. These are described (Hesse, 1996) as not characteristised of the 'organised' relational strategies typical of F, D and E functioning. As such they may represent a disorganisation of mind that overlaps with disorganised features of U functioning, though according to Hesse, potentially more global than specific to loss or trauma. However, unlike the U classification, CC cases are not seen as addressing a rather distinct issue, theoretically orthogonal to specific F, D or E classifications in the way that U cases are. It is also recognised (Hesse, 1996) that this CC group does not appear to represent a distinct and new category which groups together through a single methodological issue rather that there are a range of different ways a CC classification may come about. For example: CC may be allocated given the co-existence of theoretically incompatible states of mind but also through absence of any elevated scores indicating insecure classification in the presence of obviously low coherence scores. As yet there is not a clear methodology for teasing these issues apart and such cases are classified together as CC. Both these issues, the clearly different theoretical basis from U, and the theoretical

heterogeneity of CC, make it unfortunate that U and CC are often reported as a single classification, an alternative to F/E/D: "U|CC".

Finally, with regard to analysis of Adult Attachment Interviews, the ratings of transcripts are made up of scores on the specific 'scales of experience' and 'scales of mind'. These individual scales can also be examined though with the exception of Fonagy *et al.* (1996), this has rarely been reported.

Bearing these factors in mind and guided by *a priori* predictions, the analyses of internal comparisons were be approached in the following way: firstly, Cannot Classify cases were be examined in the form of CC vs not CC separate from F/D/E and from U. This takes account of their unclear status in relation to the 'organised' classes of F, D and E. Next, as it is not appropriate to treat a variable that is orthogonal to other variables as coextensive with them, hence all transcripts were categorised as U vs 'not-U' and, for any comparisons internal to the study participant groups, were not subjected to a four way analysis (F, D, E, U) a departure from much of the AAI literature. Finally for the internal comparisons, the three major classes of attachment (F, D, E) were examined independently of U and CC in two ways. In the first all transcripts with a CC rating were treated as missing for F/D/E); in the second, all such CC cases were treated in a forced choice way, reclassified for their first F, D, or E alternate.

The rationale for the CC cases to be treated as missing variables is as follows: although CC brings together fifteen cases as having something in common (not fitting the 'organised' classification system), they may contain important differences within them in terms of how they come to be CC. If CC is treated as a value in any of the scoring systems then the statistical significance of the answer is based on treating all the CC's as indicating the same thing. If they are removed the statistical significance of the answer ignores them and is a comment merely on the 33 who were classifiable. Given reservations about CC potentially hiding complexity, having a result on the 33 who are not CC as opposed to a result on the whole sample of 48 was deemed to be preferable. However, as noted, the analysis of the forced three way classification is also reported.

There was one departure from the planned statistical analyses after the frequency of major classifications was identified and the relatively few number of F transcripts made the following two separate pre-hoc hypotheses, essentially identical:

- *There will be a higher proportion of E transcripts in the sexual group than the violent, and*
- *a higher proportion of D transcripts in the violent than the sexual offence group.*

This negated the need for polynomial logistic regression or loglinear analyses of the three way classification and the two predictions collapse into one tested with a simple exact test on a two-by-two table of D/E against offence type.

Comparisons with external samples were necessarily carried out according to the variables available in the literature: the three way D/E/F and the four way D/E/F/CC|U classifications.

Overall findings for classification

These are briefly presented first so that they can be understood in relation to the comparisons with external groups. The number of transcripts rated as Cannot Classify was 15 (31.3%) of the total sample. The total number of transcripts given an Unresolved classification was 32 (66.7%). To determine the frequency of other classifications, the CC transcripts were set aside (treated as missing variables according to the rationale above) and U scores ignored, with the first alternate major class being examined. Of the 33 non-CC transcripts, 23 were classified as D, eight as E and two as F. When the CC transcripts were 'forced' to the first D, E and F alternate, there were 29 D, 17 E and two F classifications. These are presented in Table 28 below. A table of overall classifications with subclass and alternate scores can be found in Appendix 6.

Table 28 AAI three way scores for total sample

	Classification (after U)		Forced Classification	
Class	**N**	**%**	**n**	**%**
D	23	69.7%	29	60.4%
E	8	24.2%	17	35.4%
F	2	6.1%	2	4.2%
Total	33	100%	48	100%

Comparisons with external samples

A number of predictions were made about the relationship of these data with the reports of 'normal' and 'clinical' groups in the literature. The specific ones in relation to overall classifications are set out below. In addition, the mean scores for subscale ratings were also compared with those subscale scores presented in the literature.

Overall classifications in relation to clinical and non-clinical samples

These are as follows:

- *That there would be a higher proportion of insecure classifications when comparing with 'normal' and 'clinical' groups.*
- *The proportion of 'Unresolved' transcripts would be higher than for other 'normal' and 'clinical' but non-criminological groups.*
- *The proportion of CC transcripts would be higher than for other 'normal' and other 'clinical' but non-criminological data.*

Data from this sample was compared with findings for a substantial number of clinical and non-clinical groups presented in a meta-analysis by van IJzendoorn and colleagues (van IJzendoorn et al., 1997; van IJzendoorn & Bakersman-Kranenburg, 1996) and work by Dozier and colleagues (Dozier et al., 1997) looking at psychopathology in adulthood. A number of studies were removed from the data presented by van IJzendoorn as they were thought to not provide appropriate data sets for comparison here. These included all studies describing adolescent samples; some studies where data was presented for adults and which were described as clinical, but where the participants were only clinical to the extent of being parents of children with clinical problems. Finally, in the work by van IJzendoorn and colleagues, a few samples had data for three and four way comparisons and these were included in both sets of tables for the three and four way classifications.

In the tabulated comparisons, the referential data from the literature were compared with the three way classification in this study where the CC transcripts were excluded from the data analysis. These are presented in Table 29 below. Secondly, comparisons were made

for the 'forced' three way classification where CC transcripts were forced to the first alternate major classification. These can be found in Table 30 below. Finally, although in this thesis the rational for the treatment of Unresolved transcripts is different to that presented by van IJzendoorn and colleagues in their work (van IJzendoorn et al., 1997; van IJzendoorn et al., 1996) in order to make group comparisons with external samples, their approach was adopted. For their work they collapsed all U and CC transcripts to create a fourth major class of attachment, yielding D, E, F and 'U/CC'. These are presented in Table 31 below.

As in van IJzendoorn et al., (1996) adjusted standardised residuals are also presented for each three-by-two (Table 29 and Table 30) and four-by-two comparison (Table 31). These residuals provide a metric of the extent to which each of the sub group samples differs from the expected distribution of the major classifications according to the actual distributions in the sample in this thesis. Where there is a large standardised residual (greater than 2.0) the observed cell frequency of the referential sample from the literature can be judged to be considerably larger if the sign is positive, or smaller if the sign is negative, than expected from the sample under study.

Table 29 Comparisons with referential groups with CC transcripts removed

Reference	Sample	D	F	E	Exact p	Adjusted standardized residuals		
		23	2	8		D	F	E
Normative referential samples								
Main & Goldwyn	Normal mothers	13	13	6	.003	-1.12	2.07	-0.34
Crowell & Feldman (1988)	Normal mothers	7	10	5	.002	-1.44	2.37	-0.09
Haft & Slade (1989)	Normal mothers	6	3	5	.13	-0.9	1.24	0.57
Ainsworth & Eichberg (1991)	Normal mothers	9	29	7	<.00005	-2.2	2.63	-0.56
van Ijzendoorn et al. (1991)	Normal mothers	8	15	4	<.00005	-1.59	2.66	-0.6
Fonagy et al. (1991)	Normal mothers	24	60	16	<.00005	-1.91	1.96	-0.48
DeKlyen (1992)	Normal mothers	3	20	2	<.00005	-2.45	3.42	-1.11
Cohn et al. (1992)	Normal mothers	1	19	6	<.00005	-2.94	3.2	-0.07
Benoit et al. (1992)	Normal mothers	10	9	2	.005	-0.79	2.28	-0.96
B-K & van Ijzendoorn (1993)	Normal mothers	20	46	17	<.00005	-1.94	1.99	-0.21
Das-Eiden et al. (1993)	Normal mothers	12	30	5	<.00005	-1.89	2.58	-0.95
Benoit & Parker (1994)	Normal mothers	10	60	15	<.00005	-2.82	2.3	-0.39
Zeanah et al. (1993)	Normal mothers	16	24	17	<.00005	-1.75	1.86	0.29
Main & Goldwyn (ip)	Normal fathers	13	19	3	.00003	-1.28	2.49	-1.12
van Ijzendoorn et al. (1991)	Normal fathers	8	14	7	.0002	-1.71	2.38	-0.01
Cohn et al. (1992)	Normal fathers	3	22	2	<.00005	-2.54	3.41	-1.18
Radovejic (1992)	Normal fathers	17	27	18	.003	-1.78	1.86	0.25
Steele et al. (1993)	Normal fathers	20	66	14	<.00005	-2.17	2.08	-0.62
Benoit (pers. Comm.)	Normal fathers	2	29	2	<.00005	-2.97	3.43	-1.34
Bus & van Ijzendoorn (1992)	Low SES mothers	11	14	8	.001	-1.46	2.12	NaN
Kolar et al. (1993)	Low SES mothers	20	34	12	.00001	-1.62	2.04	-0.37
Bearman & Ogawa (1993)	Low SES mothers	28	81	6	<.00005	-1.85	2.06	-1.48
Crittenden et al. (1992)	Low SES mothers	7	8	5	.007	-1.28	2.18	0.04
Crittenden et al. (1992)	Low SES fathers	6	8	6	.003	-1.49	2.18	0.31
Benoit et al. (1989)	Low SES mothers	10	10	5	.005	-1.12	2.12	-0.25
Davidson et al. (1993)	Low SES mothers	10	10	24	.0002	-2.04	1.2	1.34
Sagi et al. (1994)	Kibbutz mothers	3	31	11	<.00005	-3.1	2.74	0.01
Kobak & Sceery (1988)	Young adults	17	28	8	<.00005	-1.54	2.21	-0.59
Hesse et al. (1993)	Young adults	29	44	17	<.00005	-1.47	1.78	-0.3
Sagi et al. (1994)	Young adults	14	41	4	<.00005	-2	2.56	-1.33
Clinical referential samples								
Cole-Detke & K. (1996)	Depressive symptoms	4	4	6	.02	-1.43	1.66	0.9
Tyrrell & Dozier (1997)	MDD	0	5	1	<.00005	-1.88	3.78	-0.33
Patrick et al. (1994)	Dysthymic	6	2	4	.34	-0.62	0.9	0.45
Tyrrell & Dozier (1997)	Bipolar	7	0	0	.41	0.76	-0.59	-1.18
Fonagy et al. (1996)	Mixed affective	13	18	41	<.00005	-2.35	1.16	1.28
Tyrrell & Dozier (1997)	Schizoaffective	6	1	1	.67	0.14	0.54	-0.57
Fonagy et al. (1996)	Anxiety	8	7	29	.00002	-2.31	0.82	1.71
Cole-Detke & K. (1996)	Eating disorder	8	3	1	.15	-0.09	1.44	-0.9
Fonagy et al. (1996)	Eating disorder	4	1	9	.02	-1.43	0.11	1.75
Fonagy et al. (1996)	Substance abuse	8	6	23	.0002	-2.07	0.86	1.63
Tyrrell & Dozier (1997)	Schizophrenia	24	3	0	.01	0.62	0.5	-1.9
Cole-Detke & K. (1996)	ED & depression	5	4	10	.007	-1.64	1.22	1.33
Fonagy et al. (1996)	BPD	6	3	27	.00001	-2.35	0.24	2.05
Patrick et al. (1994)	BPD	0	0	12	<.00005	-2.48	-0.73	2.89
Fonagy et al. (1996)	Antisocial PD	5	8	9	.0009	-1.85	2	0.84
Forensic referential samples								
van Ijzendoorn et al. (1997)	Forensic adults	17	2	21	.03	-1.05	-0.13	1.28

Table 30 Comparisons with referential groups with CC transcripts 'forced'

Reference	Population	D cf. 29	F cf. 2	E cf. 17	Exact p	Adjusted standardized residuals D	F	E
Normative referential data								
Main & Goldwyn (ip)	Normal mothers	13	13	6	.0002	-0.93	2.86	-1.06
Crowell & Feldman (1988)	Normal mothers	7	10	5	.0002	-1.28	3.21	-0.73
Haft & Slade (1989)	Normal mothers	6	3	5	.1	-0.68	1.76	0.01
Ainsworth & Eichberg (1991)	Normal mothers	9	29	7	<.00005	-2.19	3.61	-1.35
van Ijzendoorn et al. (1991)	Normal mothers	8	15	4	<.00005	-1.46	3.59	-1.29
Fonagy et al. (1991)	Normal mothers	24	60	16	<.00005	-1.97	2.8	-1.33
DeKlyen (1992)	Normal mothers	3	20	2	<.00005	-2.4	4.54	-1.77
Cohn et al. (1992)	Normal mothers	1	19	6	<.00005	-2.94	4.28	-0.73
Benoit et al. (1992)	Normal mothers	10	9	2	.0002	-0.54	3.09	-1.57
B-K & van Ijzendoorn (1993)	Normal mothers	20	46	17	<.00005	-1.98	2.83	-0.98
Das-Eiden et al. (1993)	Normal mothers	12	30	5	<.00005	-1.84	3.56	-1.78
Benoit & Parker (1994)	Normal mothers	10	60	15	<.00005	-2.99	3.24	-1.21
Zeanah et al. (1993)	Normal mothers	16	24	17	.00001	-1.71	2.63	-0.34
Main & Goldwyn (ip)	Normal fathers	13	19	3	<.00005	-1.12	3.41	-1.87
van Ijzendoorn et al. (1991)	Normal fathers	8	14	7	.00001	-1.59	3.25	-0.68
Cohn et al. (1992)	Normal fathers	3	22	2	<.00005	-2.51	4.55	-1.85
Radovejic (1992)	Normal fathers	17	27	18	<.00005	-1.75	2.64	-0.39
Steele et al. (1993)	Normal fathers	20	66	14	<.00005	-2.28	2.96	-1.52
Benoit (pers. Comm.)	Normal fathers	2	29	2	<.00005	-2.99	4.61	-2.06
Bus & van Ijzendoorn (1992)	Low SES mothers	11	14	8	.0001	-1.31	2.93	-0.68
Kolar et al. (1993)	Low SES mothers	20	34	12	<.00005	-1.57	2.88	-1.17
Bearman & Ogawa (1993)	Low SES mothers	28	81	6	<.00005	-1.93	2.93	-2.54
Crittenden et al. (1992)	Low SES mothers	7	8	5	.001	-1.1	2.95	-0.58
Crittenden et al. (1992)	Low SES fathers	6	8	6	.0008	-1.34	2.95	-0.29
Benoit et al. (1989)	Low SES mothers	10	10	5	.0007	-0.92	2.91	-0.92
Davidson et al. (1993)	Low SES mothers	10	10	24	.0003	-2	1.78	0.99
Sagi et al. (1994)	Kibbutz mothers	3	31	11	<.00005	-3.17	3.76	-0.69
Kobak & Sceery (1988)	Young adults	17	28	8	<.00005	-1.45	3.09	-1.41
Hesse et al. (1993)	Young adults	29	44	17	<.00005	-1.44	2.56	-1.1
Sagi et al. (1994)	Young adults	14	41	4	<.00005	-1.99	3.55	-2.23
Clinical referential data								
Cole-Detke & K. (1996)	Depressive symptoms	4	4	6	.02	-1.26	2.27	0.35
Tyrrell & Dozier (1997)	MDD	0	5	1	<.00005	-1.8	4.79	-0.71
Patrick et al. (1994)	Dysthymic	6	2	4	.28	-0.38	1.34	-0.1
Tyrrell & Dozier (1997)	Bipolar	7	0	0	.11	1.13	-0.5	-1.47
Fonagy et al. (1996)	Mixed affective	13	18	41	<.00005	-2.43	1.73	1.05
Tyrrell & Dozier (1997)	Schizoaffective	6	1	1	.25	0.45	0.87	-0.98
Fonagy et al. (1996)	Anxiety	8	7	29	.00007	-2.3	1.3	1.49
Cole-Detke & K. (1996)	Eating disorder	8	3	1	.03	0.22	2	-1.37
Fonagy et al. (1996)	Eating disorder	4	1	9	.07	-1.26	0.39	1.29
Fonagy et al. (1996)	Substance abuse	8	6	23	.0008	-2.02	1.35	1.34
Tyrrell & Dozier (1997)	Schizophrenia	24	3	0	.0003	1.13	0.89	-2.47
Cole-Detke & K. (1996)	ED & depression	5	4	10	.02	-1.49	1.76	0.85
Fonagy et al. (1996)	BPD	6	3	27	.00012	-2.32	0.59	1.88
Patrick et al. (1994)	BPD	0	0	12	.0001	-2.41	-0.63	2.57
Fonagy et al. (1996)	Antisocial PD	5	8	9	.0005	-1.74	2.74	0.29
Forensic referential data								
van Ijzendoorn et al. (1997)	Forensic adults	17	2	21	.25	-0.85	0.13	0.9

Table 31 Comparison with referential groups using Van IJzendoorn et al (1996) 4-way classification

Reference	Population	D	F	E	"u"	Exact p	Adjusted standard residuals			
		Cf.								
		11	0	1	36		D	F	E	"u"
Normative referential data										
Ainsworth & Eichberg (1991)	Normal mothers	6	28	1	10	<.00005	-0.78	3.93	0.03	-2.6
DeKlyen (1992)	Normal mothers	3	18	0	4	<.00005	-0.82	4.77	-0.59	-2.62
Van Ijzendoorn et al. (1991)	Normal mothers	6	14	3	4	<.00005	-0.05	3.99	1.3	-2.74
Cohn et al. (1992)	Normal mothers	1	14	2	10	<.00005	-1.6	3.99	0.89	-1.61
B-K & van Ijzendoorn (1993)	Normal mothers	15	41	13	14	<.00005	-0.36	2.95	1.39	-3.14
Fonagy et al. (1991)	Normal mothers	21	56	11	8	<.00005	-0.07	3.06	1.06	-3.94
Posada (1993)	Normal mothers	9	22	4	14	<.00005	-0.35	3.27	0.93	-2.24
Das-Eiden et al. (1993)	Normal mothers	10	28	3	6	<.00005	-0.12	3.8	0.73	-3.24
Benoit & Parker (1994)	Normal mothers	9	48	7	24	<.00005	-1.1	3.04	0.8	-2.38
Van Ijzendoorn et al. (1991)	Normal fathers	7	14	4	4	<.00005	0.08	3.8	1.54	-2.85
Cohn et al. (1992)	Normal fathers	1	20	1	5	<.00005	-1.6	4.77	0.33	-2.54
Radovejic (1992)	Normal fathers	10	22	10	20	<.00005	-0.53	2.73	1.53	-2.06
Steele et al. (in press)	Normal fathers	17	59	11	3	<.00005	-0.3	3.31	1.13	-4.45
Benoit (pers. Comm.)	Normal fathers	1	23	1	8	<.00005	-1.76	4.45	0.21	-2.34
Bus & van Ijzendoorn (1992)	Low SES mothers	10	14	6	3	<.00005	0.49	3.47	1.86	-3.23
Kolar et al. (1993)	Low SES mothers	14	22	4	26	<.00005	-0.12	2.6	0.65	-1.65
Bearman & Ogawa (1993)	Low SES mothers	21	61	0	36	<.00005	-0.37	2.68	-0.84	-2.12
Davidson et al. (1993)	Low SES mothers	10	10	14	11	<.00005	-0.05	2.35	2.5	-2.46
Hesse et al. (1993)	Young adults	21	34	10	25	<.00005	0.03	2.51	1.06	-2.34
Sagi et al. (1994)	Young adults	14	39	4	2	<.00005	0.06	3.77	0.75	-4.14
Clinical referential data										
Tyrrell & Dozier (1997)	MDD	0	3	1	2	.0004	-1.11	4.62	1.65	-1.08
Tyrrell & Dozier (1997)	Bipolar	3	0	0	4	.44	0.91	.	-0.36	-0.48
Fonagy et al. (1996)	Mixed affective	5	9	6	52	.002	-1.48	1.55	0.88	-0.11
Tyrrell & Dozier (1997)	Schizoaffective	5	1	0	2	.008	1.8	2.27	-0.38	-1.47
Fonagy et al. (1996)	Anxiety	3	2	1	38	.04	-1.43	1.07	0.04	0.44
Fonagy et al. (1996)	Eating disorder	1	0	0	13	.43	-1.04	.	-0.48	0.58
Fonagy et al. (1996)	Substance abuse	2	4	3	28	.006	-1.54	1.71	0.95	0.03
Tyrrell & Dozier (1997)	Schizophrenia	16	1	0	12	.005	1.83	1.02	-0.61	-1.43
Fonagy et al. (1996)	BPD	1	2	1	32	.009	-1.83	1.23	0.15	0.53
Fonagy et al. (1996)	Antisocial PD	1	3	1	17	.014	-1.43	2.12	0.47	0.08
Forensic referential data										
Van Ijzendoorn et al. (1997)	Forensic adults	9	2	8	21	.008	-0.03	1.14	1.93	-0.96

It can be seen that the sample under study has fewer secure (F) classifications than almost all the non-clinical samples for 3-way, forced 3-way and van IJzendoorn *et al.* 's (1996) 4-way classification systems. The data for clinical groups is more complex. There are significant differences for 11 of the 15 clinical groups on both the 3-way and forced 3-way classifications (9 common to both groups), these tend to be in the direction of more F and/or E classifications and/or fewer D classifications in the referential groups. The one sample that differs to this is a sample with schizophrenia (Dozier et al., 1997) where there are fewer E classifications for both 3-way and forced 3-way. For the one published

forensic sample of Dutch personality disordered criminal offenders (van IJzendoorn et al., 1997), the direction of difference was of more E classifications than in their sample, but this was not maintained with the forced 3-way classification.

When the 4-way classification that collapses U and CC transcripts was adopted (van IJzendoorn et al., 1997; van IJzendoorn et al., 1996), all the non-clinical populations had more F classifications and fewer 'U/CC' classifications than the present sample. For the clinical groups, the picture was again more complex. Eight of the 10 referential groups differed statistically significantly from the sample in this study and for half of these, this was in the direction of more F classifications. Two studies appeared to have fewer D classifications (though there was a trend for this in a number of others) than the present sample and, as with the 3-way classifications, the comparison with the schizophrenic group (Dozier et al., 1997) again revealed more D classifications in that group. When the van IJzendoorn *et al* forensic sample was examined, there was a difference between that group and the sample under study which again tended to be in the direction of more E classifications in the Dutch sample.

Comparisons of subscale scores with clinical and non-clinical samples

Subscale scores are not often reported in the literature but may provide some useful information about the more specific ways in which sub-groups or different samples differ on ratings for states of experience and states of mind. One paper does report sub-scale scores for both a clinical population and a non-clinical population (Fonagy et al., 1996). The data presented in this paper were used to provide comparison referential data for the group under study. Their clinical groups comprised patients who were consecutive admissions to an in patient therapeutic community for people with personality disorder and other co-morbid mental health problems. The non-clinical sample was a group of matched controls recruited from the out-patient department of a London teaching hospital. Fonagy and colleagues derive scores for each of the scales by computing the mean of parental scores and not using the *overall* scores for idealisation, derogation and involving anger. In addition, they also used a mean score combining coherence of mind and coherence of transcript.

The comparisons for subscale scores with their inpatient clinical sample are presented in Table 32 below. The present sample of MDOs score higher on subscales for 'neglect' and 'idealisation' and lower for 'role reversal' 'pressure to achieve', 'involving anger', coherence of mind and transcript'.

Table 32 Subscale comparison with clinical sample

AAI scale	Ref.	Sample	T	d.f.	P	Diff.	95% C.I. diff.
	Mean					(ref. minus sample)	
Loving parents	2.7	2.54	0.6	125	0.55	.16	-0.36 to 0.67
Rejecting parents	5.9	6.53	1.57	122	0.12	-.63	-1.42 to 0.16
Neglecting parents	5.9	7.22	3.73	125	<.005	-1.32	-2.02 to –0.62
Role reversal	2.7	1.92	2.84	123	0.01	.78	0.24 to 1.33
PTA	2.5	1.48	3.27	124	<.005	1.02	0.4 to 1.63
Idealization of parents	2.6	3.54	2.75	128	0.01	-.94	-1.62 to –0.26
Derogation of parents	2.1	2.65	1.84	127	0.07	-.55	-1.14 to 0.04
Involving anger with parents	4.1	1.85	7.52	126	<.005	2.25	1.66 to 2.84
Poor recall	4.1	4.44	0.94	128	0.35	-.34	-1.05 to 0.37
Coherence of mind & trans.	4.1	2.11	7.52	128	<.005	1.99	1.46 to 2.51
Passivity of thought	3	3.59	1.61	128	0.11	-.59	-1.32 to 0.14
Fear of loss of child	1.6	1.46	0.51	108	0.61	.14	-0.39 to 0.66

The comparisons for subscale scores with the non-clinical sample of Fonagy et al., (1996) are presented in Table 33 below. The present sample of MDOs score higher on subscales for 'rejection', 'neglect', 'derogation', 'poor recall', and 'passivity' and score lower for 'loving', 'pressure to achieve', and 'coherence of mind and transcript'.

Table 33 Subscale comparison with non-clinical sample

AAI scale	Ref.	Sample	T	d.f.	p	Diff.	95% C.I. diff.
	Mean					Ref. minus sample	
Loving parents	5.5	2.54	9.92	128	<.005	2.96	2.37 to 3.54
Rejecting parents	3	6.53	11.34	125	<.005	-3.53	-4.15 to -2.91
Neglecting parents	3.6	7.22	11.49	128	<.005	-3.62	-4.25 to -3
Role reversal	1.9	1.92	0.08	126	0.93	-0.02	-0.46 to 0.42
PTA	2.6	1.48	4.89	127	<.005	1.12	0.67 to 1.57
Idealization of parents	3	3.54	1.91	131	0.06	-0.54	-1.1 to 0.02
Derogation of parents	2	2.65	2.42	130	0.02	-0.65	-1.18 to -0.12
Involving anger with parents	2.2	1.85	1.48	129	0.14	0.35	-0.12 to 0.81
Poor recall	3.6	4.44	2.72	131	0.01	-0.84	-1.45 to -0.23
Coherence of m&t	5.5	2.11	14.22	131	<.005	3.39	2.91 to 3.86
Passivity of thought	2.1	3.59	5.15	131	<.005	-1.49	-2.07 to -0.92
Fear of loss of child	1.3	1.46	0.94	111	0.35	-0.16	-0.51 to 0.18

Internal Comparisons

Cannot Classify transcripts

The summary data for CC transcripts by offence type is presented in Table 34, below, and for both offence type and diagnosis in Table 35, below. A binomial logistic regression analysis for CC transcripts by offence type was then carried out to test the prediction:

- *Sexual offenders will show more evidence of CC functioning than violent offenders.*

This is shown in Table 36 below. No significant differences were found by offence type. However, the results were in the direction predicted (sexual offenders having 37.5% CC classifications and violent offenders 25%). The Odds Ratio for CC classification (given sexual vs violent) is 1.8 (C.I. 0.52 to 6.22).

Table 34. Summary data for Cannot Classify transcripts by offence type

		Offence type		
		Sexual	Violent	Total
Not CC	Count	15	18	33
	%	62.5%	75.0%	68.8%
CC	Count	9	6	15
	%	37.5%	25.0%	31.3%
	Count	24	24	48
	%	100.0%	100.0%	100.0%

Not significant overall (exact p=.53).

Table 35. Summary data for Cannot Classify transcripts by Offence type and Diagnosis

			Offence type		
			Sexual	Violent	Totals
Diagnosis					
MI	Not CC	Count	6	11	17
		%	60.0%	78.6%	70.8%
	CC	Count	4	3	7
		%	40.0%	21.4%	29.2%
	Total	Count	10	14	24
		%	100.0%	100.0%	100.0%
PD	Not CC	Count	9	7	16
		%	64.3%	70.0%	66.7%
	CC	Count	5	3	8
		%	35.7%	30.0%	33.3%
	Totals	Count	14	10	24
		%	100.0%	100.0%	100.0%

Not significant within levels of diagnosis.

Table 36. Logistic regression for Cannot Classify transcripts

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
							Lower	Upper
Diagnosis	.102	.637	.025	1	.873	1.107	.317	3.860
Offence type	-.571	.641	.794	1	.373	.565	.161	1.984
Constant	-.101	1.476	.005	1	.946	.904		

Unresolved transcripts

The summary data for Unresolved transcripts by group is presented in Table 37 below and for offence type in Table 38 below. A binomial logistic regression analysis for Unresolved transcripts by diagnosis and offence type was then carried out to test the null hypothesis of no difference by offence type or diagnosis.

- *Unresolved transcripts will be analysed against the null hypothesis of no difference by offence type or diagnosis.*

This is presented in Table 39 below. No significant differences were found in statistical analyses but there was a trend for the PD sexual offenders to be most likely to have a U classification (85.7%) when compared with the percentage of the other three groups (58.8)%. The Odds Ratio for U classification (given sexual vs violent) is 1.46 (C.I. 0.44 to 4.87).

Table 37. Summary data for Unresolved transcripts by offence type

		Offence type		Total
		Sexual	Violent	
Not U	Count	7	9	16
	%	29.2%	37.5%	33.3%
U	Count	17	15	32
	%	70.8%	62.5%	66.7%
Total	Count	24	24	48
	%	100.0%	100.0%	100.0%

Not significant overall (exact p =.76).

Table 38. Summary data for Unresolved transcripts by offence type and diagnosis

			Offence type		Total
Diagnosis			Sexual	Violent	
MI	Not U	Count	5	5	10
		%	50.0%	35.7%	41.7%
	U	Count	5	9	14
		%	50.0%	64.3%	58.3%
	Total	Count	10	14	24
		%	100.0%	100.0%	100.0%
PD	Not U	Count	2	4	6
		%	14.3%	40.0%	25.0%
	U	Count	12	6	18
		%	85.7%	60.0%	75.0%
	Total	Count	14	10	24
		%	100.0%	100.0%	100.0%

Not significant within levels.

Table 39. Logistic regression for Unresolved transcripts

	B	S.E.	Wald	Df	Sig.	Exp(B)
Diagnosis	.721	.635	1.287	1	.257	2.056
Offence type	-.265	.631	.177	1	.674	.767
Constant	.037	1.456	.001	1	.980	1.038

Classification by sub group

As described above, this was examined both with the Cannot Classify transcripts as missing data and secondly, where the Cannot Classify transcripts are 'forced' to the first alternate classification (disregarding U in this approach). The prediction being tested is:

- *There will be a higher proportion of E transcripts in the sexual offender group and a higher proportion of D transcripts in the violent group.*

  The summary data for Classifications by Offence type before 'forcing' CC classifications is presented in

Table 40, below and for both diagnosis and offence type in Table 41, below. As noted above, the very low proportion of F classifications justified a single test of the two predictions:

- *There will be a higher proportion of E transcripts in the sexual group than the violent, and*

- *a higher proportion of D transcripts in the violent than the sexual offence group.*

A Fisher's Exact test was carried out on the non-forced classifications to specifically test the new single hypothesis:

- *that there would be more D classifications in the violent group sexual offender group.*

This approached but did not attain significance p=.068 (1-tailed). The Odds Ratio for E classification (given sexual vs violent) is 5.33 (C.I. 0.88 to 32.16). The Odds Ratio for D (given violent vs sexual) is 4.38 (C.I. 0.88 to 21.71).

Table 40. Classification by aggression

	Nature of Index Offence		Total
	Sexual	Violent	
D	8	15	23
	53.3%	83.3%	69.7%
E	6	2	8
	40.0%	11.1%	24.2%
F	1	1	2
	6.7%	5.6%	6.1%
Totals	15	18	33
	100.0%	100.0%	100.0%

Exact p=.14

Table 41. Classification by Offence type and diagnosis

Diagnosis	Classification	Sexual	Violent	Totals
MI	D	4	8	12
		66.7%	72.7%	70.6%
	E	2	2	4
		33.3%	18.2%	23.5%
	F		1	1
			9.1%	5.9%
	Totals	6	11	17
		100.0%	100.0%	100.0%
PD	D	4	7	11
		44.4%	100.0%	68.8%
	E	4		4
		44.4%		25.0%
	F	1		1
		11.1%		6.3%
	Totals	9	7	16
		100.0%	100.0%	100.0%

MI group exact p=.62, PD group .059

Forced classification by sub-group

The summary data for Classifications by Offence type is presented in Table 42, below and for both diagnosis and offence type in
Table 43, below. The predictions of more E classifications in the sex offender group and more D classifications in the violent group were not found. When CC transcripts are 'forced' the Odds Ratio for E classification (given sexual vs violent) is 1.73 (C.I. 0.52 to 5.74). When CC transcripts are forced the Odds Ratio for D (given violent vs sexual) is 1.69 (C.I. 0.53 to 5.44).

Table 42. Forced classification by offence type

	Nature of Index Offence		Total
	Sexual	Violent	
D	13	16	29
	54.2%	66.7%	60.4%
E	10	7	17
	41.7%	29.2%	35.4%
F	1	1	2
	4.2%	4.2%	4.2%
Totals	24	24	48
	100.0%	100.0%	100.0%

Exact p = .66

Table 43. Forced classification by offence type and diagnosis

		Nature of Index Offence		Total
Diagnosis		Sexual	Violent	
MI	D	6	9	15
		60.0%	64.3%	62.5%
	E	4	4	8
		40.0%	28.6%	33.3%
	F		1	1
			7.1%	4.2%
		10	14	24
		100.0%	100.0%	100.0%
PD	D	7	7	14
		50.0%	70.0%	58.3%
	E	6	3	9
		42.9%	30.0%	37.5%
	F	1		1
		7.1%		4.2%
Totals		14	10	24
		100.0%	100.0%	100.0%

NS at both levels (.62 and .50 respectively).

Sub-classifications

Summary data for the distribution of sub-classes of Adult Attachment Classification can be found in Table 44, below. This data is derived from the 'forced' classifications, i.e. the first stated D, E or F subclass in overall class; subclass or first alternate ratings.

Table 44. Summary data for sub-classification by group

Sub-Class	Final groups				Total
	SMI:sexual	SMI:violent	PD:sexual	PD:violent	
D			1	1	2
			7.1%	10.0%	4.2%
D1	4	6	3	1	14
	40.0%	42.9%	21.4%	10.0%	29.2%
D2	1	2	2	4	9
	10.0%	14.3%	14.3%	40.0%	18.8%
D3	1	1	1		3
	10.0%	7.1%	7.1%		6.3%
D4				1	1
				10.0%	2.1%
E				1	1
				10.0%	2.1%
E1	3	3	5	1	12
	30.0%	21.4%	35.7%	10.0%	25.0%
E3	1	1	1	1	4
	10.0%	7.1%	7.1%	10.0%	8.3%
F1			1		1
			7.1%		2.1%
F5		1			1
		7.1%			2.1%
Total	10	14	14	10	48
	100.0%	100.0%	100.0%	100.0%	100.0%

Exact p for difference in proportions across the four groups = .67

Results for Adult Attachment Interview subscale scores.

In order to further investigate the existence of E and D type functioning in the groups under study a number of tentative predictions were made in relation to specific subscales of the AAI. These are not considered primary hypotheses and the results of these are presented below.

Scales for States of Mind

Passivity

It was predicted that passivity scores would be higher in sexual offenders than violent offenders. The difference was in the direction predicted, but was not statistically significant. Summary data are presented in Table 45, below. A box plot of the passivity ratings against diagnosis and offence type is shown in Figure 16, below. The overall distribution of the ratings did not differ statistically significantly from Gaussian but was clearly skew. Mann-Whitney U test gave p=.28 and t-test gave p=.24 and a 2-way ANOVA showed no statistically significant interaction with diagnosis (p=.96).

Table 45. Summary parameters for passivity by index offence

Index Offence	N	Mean	SD	SE	Min	Lower quartile	Median	Upper quartile	Max
Sexual	24	3.98	2.34	.48	1	1.6	4.5	6.0	9
Violent	24	3.21	2.12	.43	1	1.3	2.5	4.9	8

Involving Anger

It was predicted that sexual offenders would score higher on subscale ratings of involving anger than violent offenders. The overall anger score (or the highest score for mother or father, where no overall anger score was recorded) was used. The difference between groups was in the direction predicted but was not statistically significant. Summary data for the groups is presented in Table 46, below. The box plot in Figure 17, below presents this graphically and appears to show a greater range of scoring and higher scoring in the PD: sexual group. As the distribution was non-Gaussian, checking for an interaction with diagnosis was problematic. It was decided to carry out an ANOVA but to interpret the p values with great caution. In fact, none of the results approached significance.

Table 46. Summary data for Involving Anger

	Offence type	N	Mean	Std. Deviation	Std. Error Mean
Involving Anger	Sexual	24	2.5833	2.0198	.4123
	Violent	24	2.2292	1.7066	.3484

Idealisation

The prediction was tested that violent offenders will score higher on subscale ratings of idealisation than sexual offenders. The idealisation score was derived from the overall idealisation score where it existed or taking the highest idealisation score for mother or father, when no overall score was recorded. The prediction was not supported. In fact differences were found in the opposite direction and *idealisation* was found to be higher in both sexual offenders and also in Diagnosis, with the PD group appearing to score lower overall. The summary data are presented in Table 47, below and the results of a between groups ANOVA in below Table 48, below. A box plot can be found in Figure 18, below.

Table 47. Summary data for idealisation

	Offence type	N	Mean	Std. Deviation	Std. Error Mean
Idealisation	Sexual	24	5.0417	2.1565	.4402
	Violent	24	3.8750	2.4727	.5047

Table 48. Between subject ANOVA for idealisation

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	59.945	3	19.982	4.310	.009
Intercept	918.193	1	918.193	198.069	.000
Diagnosis	*42.752*	*1*	*42.752*	*9.222*	*.004*
Offence type	*25.752*	*1*	*25.752*	*5.555*	*.023*
Diagnosis * Offence type	.860	1	.860	.185	.669
Error	203.971	44	4.636		
Total	1218.000	48			
Corrected Total	263.917	47			

a R Squared = .227 (Adjusted R Squared = .174)

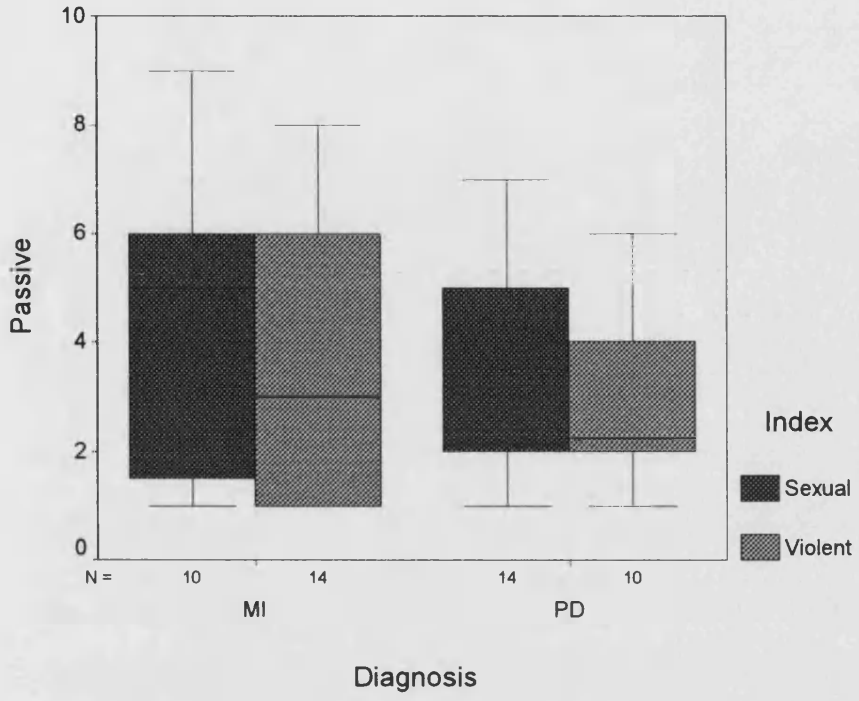


Figure 16. Boxplot of rated passivity against diagnosis and offence type

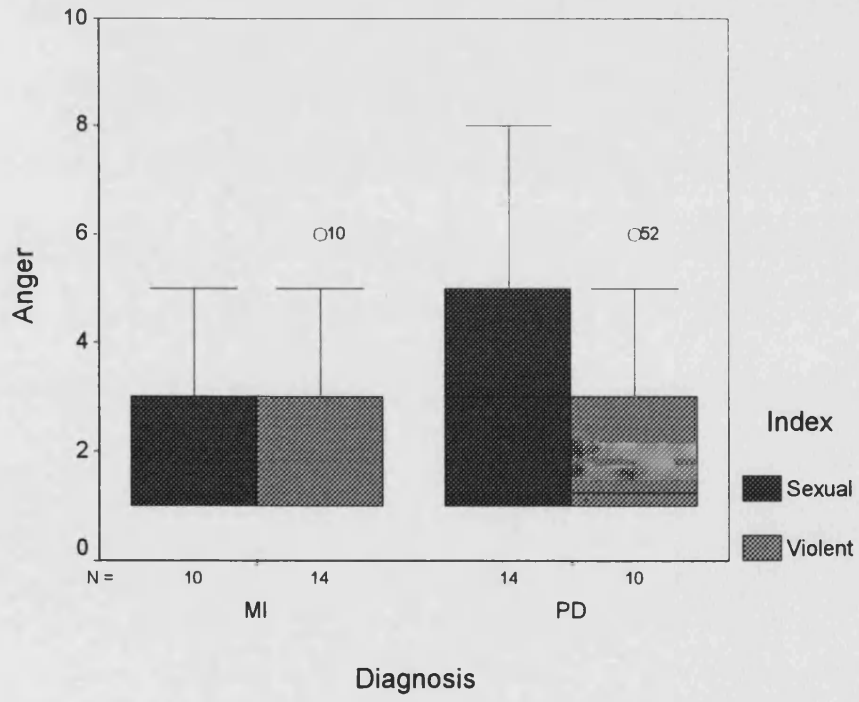


Figure 17. Boxplot of rated Involving anger against diagnosis and offence type

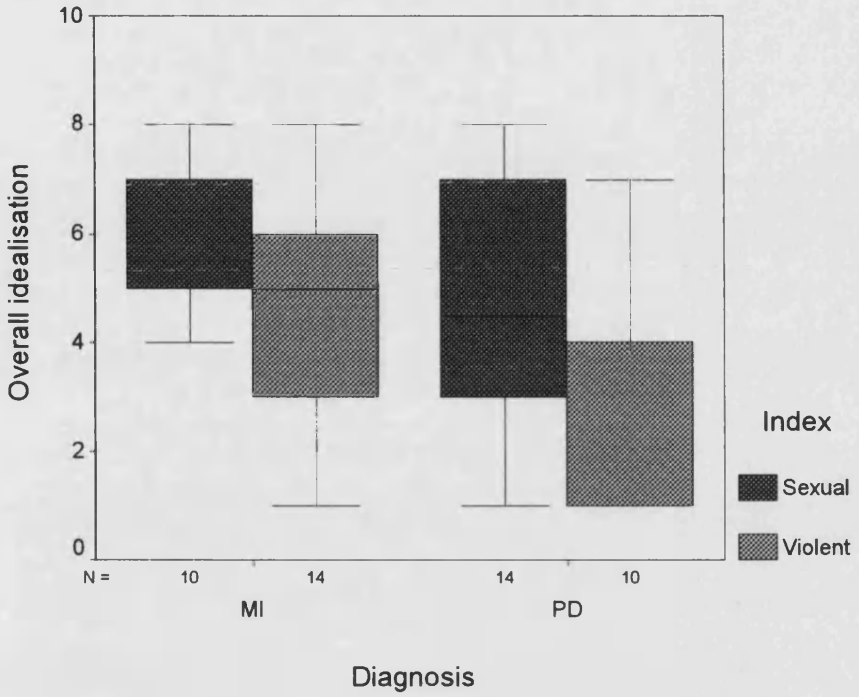


Figure 18. Box plot for idealisation against diagnosis and offence type

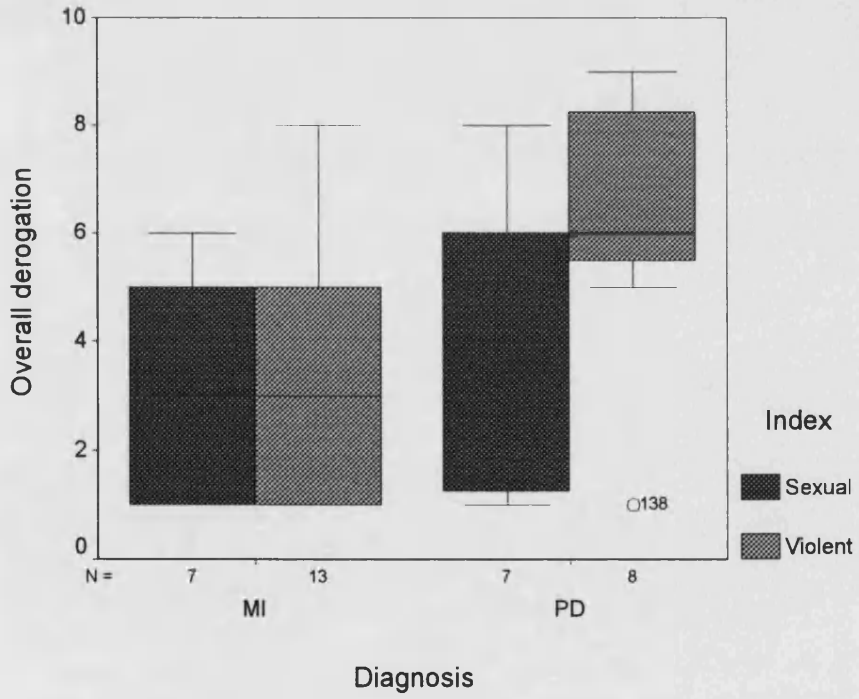


Figure 19. box plot of Derogation against offence type and diagnosis

Derogation

The prediction was tested that violent offenders will score higher on subscale ratings of derogation than sexual offenders. The derogation score was derived from the overall derogation score where it existed or by taking the highest derogation score for mother or father, when no overall score was recorded. Mean scores for derogation were in the direction of the prediction but did not reach statistical significance. The summary data are presented in Table 49, below and the results of a between groups ANOVA in Table 50, below. A box plot can be found in Figure 19, above.

Table 49. Summary data for derogation

	Offence type	N	Mean	Std. Deviation	Std. Error Mean
Derogation	Sexual	14	3.536	2.500	.668
	Violent	21	4.405	2.939	.641

Table 50. Between subjects ANOVA for derogation

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	49.576	3	16.525	2.430	.084
Intercept	562.822	1	562.822	82.764	.000
Diagnosis	27.553	1	27.553	4.052	.053
Offence type	12.047	1	12.047	1.772	.193
Diagnosis * Offence type	8.993	1	8.993	1.322	.259
Error	210.809	31	6.800		
Total	836.500	35			
Corrected Total	260.386	34			

a R Squared = .190 (Adjusted R Squared = .112)

Lack of Recall

The prediction was tested that violent offenders will score higher on subscale ratings of lack of recall than sexual offenders. As with the results for a number of the subscales, the findings were in the direction predicted but did not reach statistical significance. Summary data are presented in Table 51, below and the results of a between groups ANOVA in Table 52, below. A box plot can be found in Figure 20, below.

Table 51. Summary data for Lack of recall

	Offence type	N	Mean	Std. Deviation	Std. Error Mean
Lack of Recall	Sexual	24	4.17	2.32	.47
	Violent	24	4.71	2.21	.45

Table 52. Between subject ANOVA for Lack of recall

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	13.255	3	4.418	.860	.469
Intercept	925.601	1	925.601	180.160	.000
Diagnosis	9.301	1	9.301	1.810	.185
Offence type	1.801	1	1.801	.350	.557
Diagnosis * Offence type	.434	1	.434	.084	.773
Error	226.057	44	5.138		
Total	1184.500	48			
Corrected Total	239.312	47			

a R Squared = .055 (Adjusted R Squared = -.009)

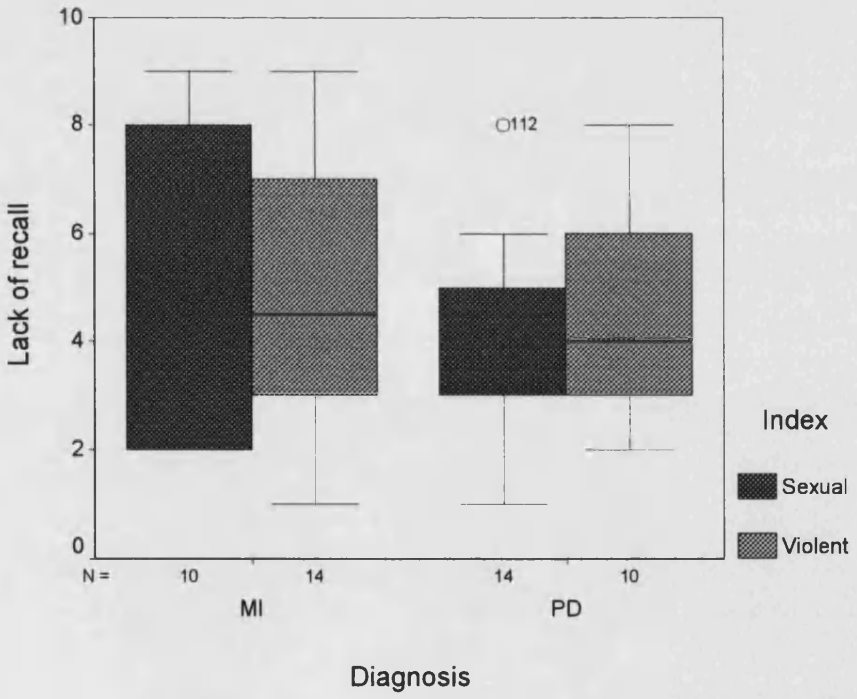


Figure 20. Box plot for lack of recall against diagnosis and offence type

Scales for Experience

These were examined for the three key states of mind that were also included on the repertory grid: 'loving', 'rejecting' and 'neglecting'. As there has been some suggestion that roles of mother and father may have a different kind of impact (Crowell et al., 1997) comparisons were carried out for mother and father separately and also for the highest of the parental scores. The reason that the highest parental score was examined is as follows; this sample did not have any evidence of the presence of positive attachment experiences in the form of loving, non-neglecting or non-rejecting experiences by either parent. So it was felt that the argument that difficult attachment experiences might be ameliorated by the presence of another supportive and caring attachment figure, would not be a strong effect supporting the use of mean parental ratings for this sample. It was felt more likely that problems would reflect the severity of the most problematic caregiver experiences for each patient. This is a different approach to the one adopted by Fonagy and colleagues (Fonagy et al., 1996) where the mean of the parents' scores was used.

No differences were found between the four sub groups of the 'diagnosis' or 'offence type' splits on the scores for 'loving'. Differences were found for both 'rejecting' and 'neglecting'.

Rejection

Between subject ANOVAs are presented in Table 53 below, Table 54 below and Table 55 below for 'mother rejection', 'father rejection' and 'highest parent score on rejection'. These results are presented graphically in box plots in Figure 21 below, Figure 22 below and Figure 23 below.

It can be seen that the scores for mother rejection are just significant for offence type ($p=.05$) and approaching significance for diagnosis ($p=.06$), with violent offenders and the PD group scoring higher for maternal rejection. For paternal rejection, the PD group do have significantly higher rejection scores and when the highest score for parental rejection is used, diagnosis (PD scoring higher) remains significant.

Mother rejecting

Table 53 Between subject ANOVA for scores on mother rejecting

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	40.77	3	13.59	2.64	0.06
Intercept	1772.61	1	1772.61	344.21	0.00
Diagnosis	18.95	1	18.95	3.68	0.06
Offence type	*21.43*	*1*	*21.43*	*4.16*	*0.05*
Diagnosis* Offence type	4.62	1	4.62	0.90	0.35
Error	211.14	41	5.15		
Total	2063.25	45			
Corrected Total	251.91	44			

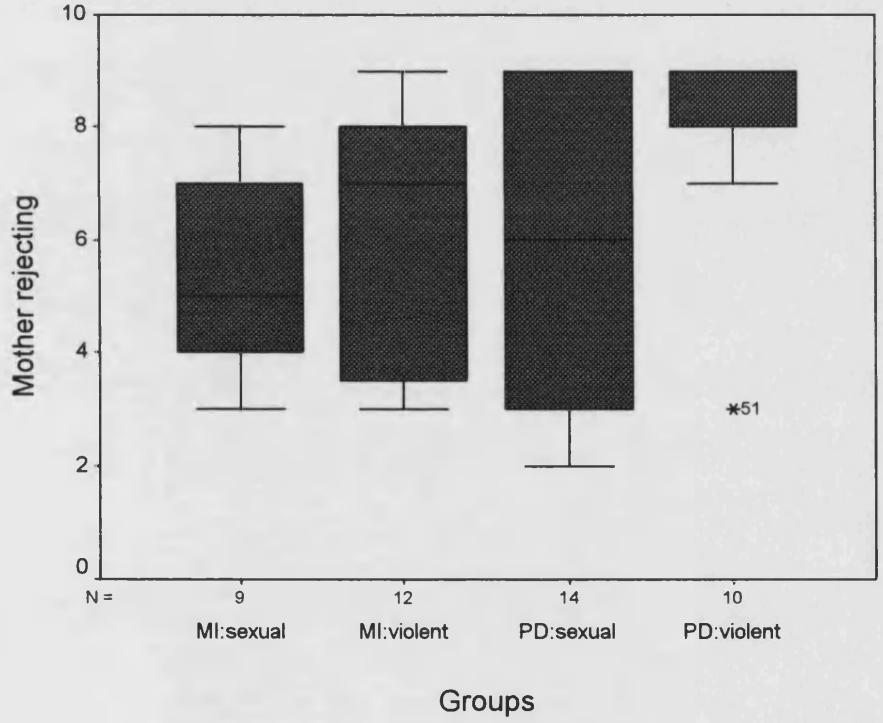


Figure 21 Box plot of scores for mother rejecting by sub group

Father rejecting

Table 54 Between subject ANOVA for scores on father rejecting

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	43.16	3	14.39	3.36	0.03
Intercept	1772.81	1	1772.81	414.38	0.00
Diagnosis	*41.25*	*1*	*41.25*	*9.64*	*0.00*
Offence type	6.04	1	6.04	1.41	0.24
Diagnosis* Offence type	2.27	1	2.27	0.53	0.47
Error	166.85	39	4.28		
Total	2206.50	43			
Corrected Total	210.01	42			

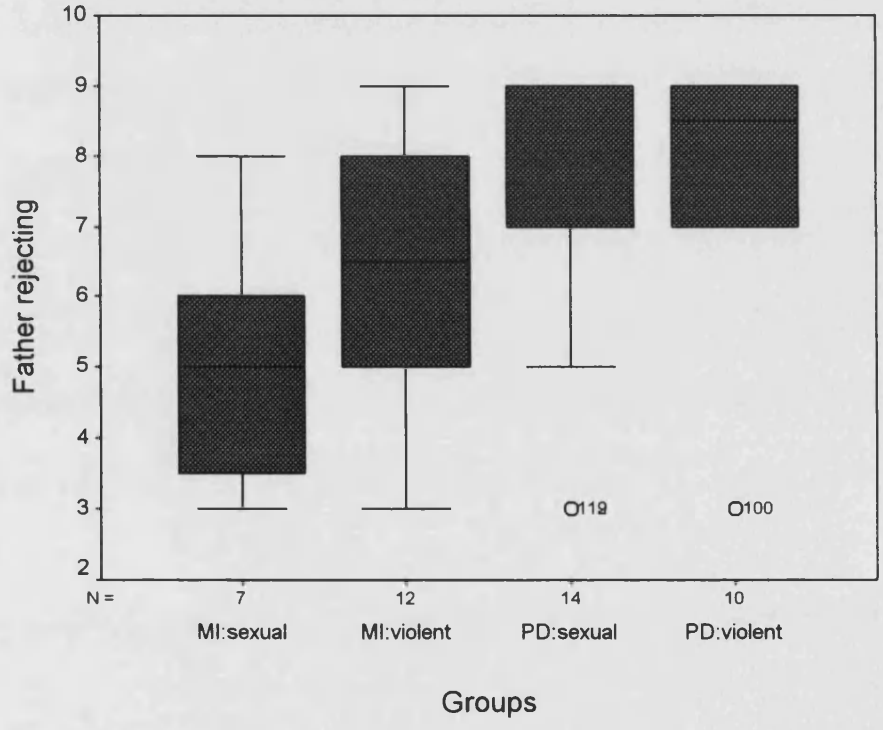


Figure 22 Box plot of scores for father rejecting by sub group

Highest parental score on rejection

Table 55 Between subject ANOVA for highest parental scores on rejecting

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	33.51	3	11.17	3.75	0.02
Intercept	2420.45	1	2420.45	812.32	0.00
Diagnosis	*29.83*	*1*	*29.83*	*10.01*	*0.00*
Offence type	8.07	1	8.07	2.71	0.11
Diagnosis* Offence type	0.02	1	0.02	0.01	0.94
Error	125.15	42	2.98		
Total	2686.50	46			
Corrected Total	158.65	45			

Not statistically significant for index offence but strongly so (.003) for diagnosis.

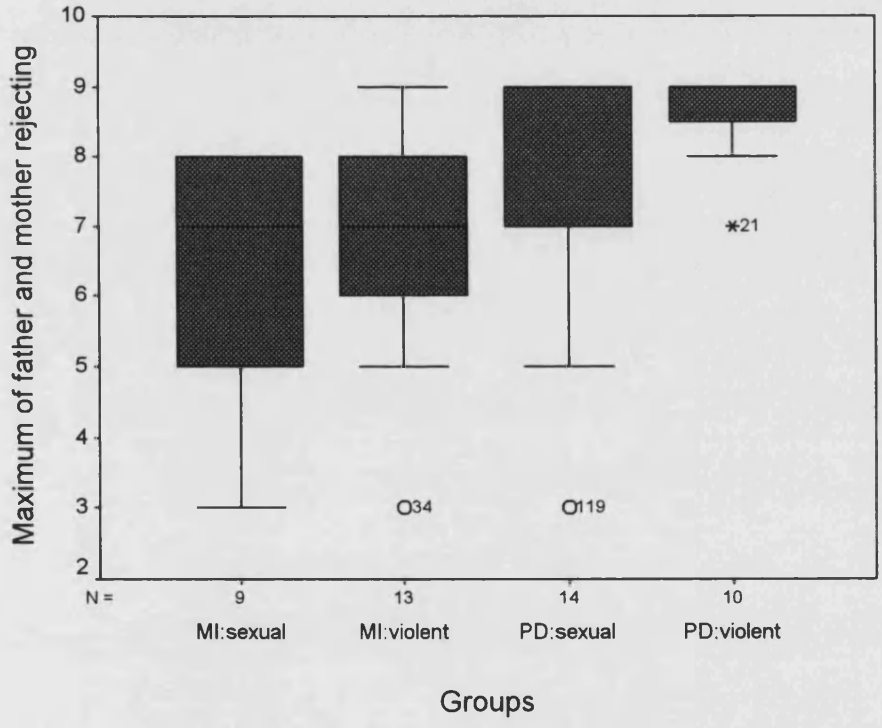


Figure 23 Box plot of scores for highest parental score for 'rejecting' by sub group

Neglect

Scores for mother neglect show a similar pattern to rejection. There are significant differences between diagnostic groups for maternal neglect (p=.004), paternal neglect

(p=.03) and for highest parental score (p=.003) with the PD group scoring higher for neglect scores than the SMI group. Between subject ANOVAs for neglect are presented in Table 56 below, Table 57 below and Table 58 below, for 'mother neglect, 'father neglect' and 'highest parent score on neglect'. These results are presented graphically in box plots in Figure 24 below, Figure 25 below and Figure 26 below.

Mother neglecting

Table 56 Between subject ANOVA for scores on mother neglecting

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	47.79	3	15.93	3.57	0.02
Intercept	2091.44	1	2091.44	468.11	0.00
Diagnosis	*41.95*	*1*	*41.95*	*9.39*	*0.00*
Offence type	10.12	1	10.12	2.26	0.14
Diagnosis* Offence type	0.69	1	0.69	0.16	0.70
Error	192.12	43	4.47		
Total	2398.25	47			
Corrected Total	239.90	46			

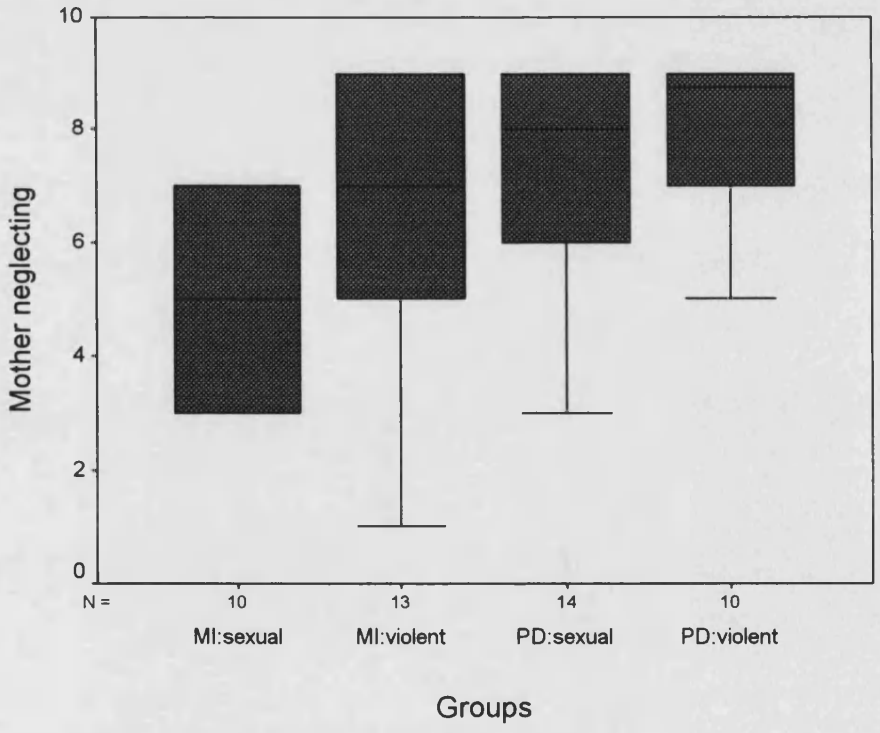


Figure 24 Box plot of scores for mother neglecting by sub group

Father neglecting

Table 57 Between subject ANOVA for scores on father neglecting

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	17.89	3	5.96	2.07	0.12
Intercept	2591.94	1	2591.94	898.70	0.00
Diagnosis	*13.87*	*1*	*13.87*	*4.81*	*0.03*
Offence type	1.68	1	1.68	0.58	0.45
Diagnosis* Offence type	0.09	1	0.09	0.03	0.86
Error	121.13	42	2.88		
Total	2840.25	46			
Corrected Total	139.03	45			

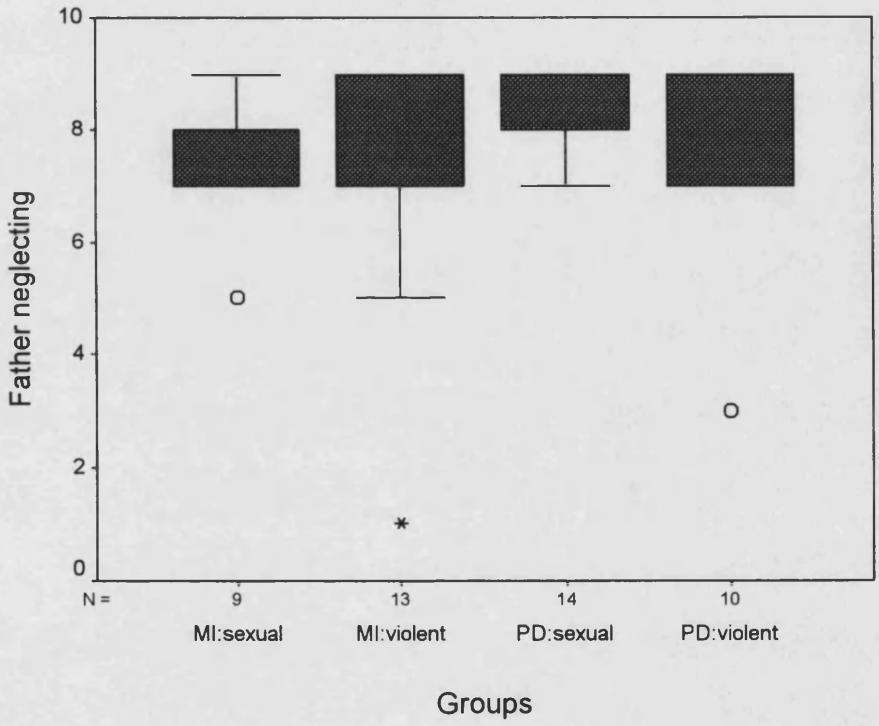


Figure 25 Box plot of scores for father neglecting by sub group

In view of the obviously non-Gaussian distributions a Mann-Whitney test of the overall sample for effect of diagnosis was conducted which showed a strongly significant effect (U=152, Z=-2.62, p=.009).

Maximum of father and mother neglecting

Table 58 Between subject ANOVA for highest parental scores on neglecting

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	24.16	3	8.05	3.45	0.02
Intercept	2908.52	1	2908.52	1246.49	0.00
Diagnosis	*23.93*	*1*	*23.93*	*10.26*	*0.00*
Offence type	0.55	1	0.55	0.24	0.63
Diagnosis* Offence type	0.23	1	0.23	0.10	0.76
Error	102.67	44	2.33		
Total	3127.25	48			
Corrected Total	126.83	47			

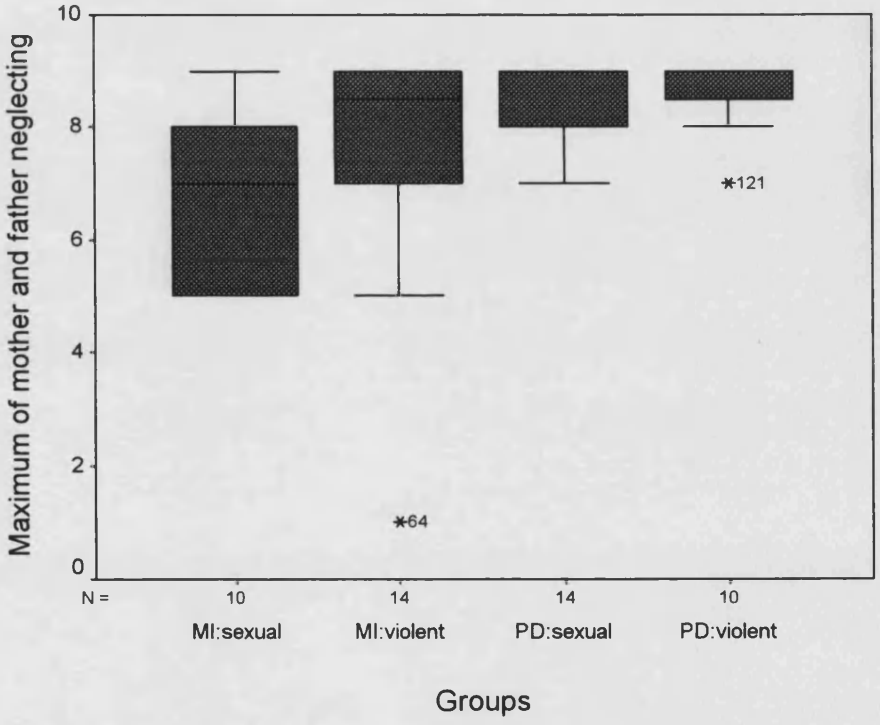


Figure 26 Box plot of scores for highest parental score for neglecting by sub group

Additional observations

Offence histories of the E group

The findings for the primary AAI prediction that sexual offenders would score higher on E classification and that violent offenders would score higher on D were of a trend in the predicted direction rather than clear separation according to attachment style. As it had been suggested in the literature that E classification might be a stronger trend for child sexual offenders than sexual offenders against adults, it was decided to look more closely at the offending histories of the smaller group of MDOs who did have an E classification. Of the 24 sexual offenders for whom AAI classifications were obtained, only six were offenders against children. Of these, four were classified with E as the first major (D, E, F) classification. The two that were classed as D were the only ones of the child sexual offenders to offend solely against boys. This is only two cases and may of course be a chance finding.

Finally, the offending histories of the 17 'forced E' group were examined (including nine CC cases). This group contained ten sexual offenders, four of the five participants who had murdered one or both parents and three participants who had committed other violent offences. These three violent offences were against other patients or social/health care workers, whereas all other violent offences were against strangers or someone known socially or as a family member. There seemed to be a relatively high proportion of people who had killed one or both parents in the E group. The Odds ratio for this was checked and is 9.23 (C.I. 0.94 to 90.78).

Experiences of separations and abuse

In the few AAI studies with offenders as well as in the longitudinal research on pathways to delinquency, crime and violence, the impact of abuse and of multiple care-givers has been noted. In particular the effects of the experience of institutional care as a child have been suggested to be important (Bowlby, 1944a; Bowlby, 1944b) (van IJzendoorn et al., 1997). The presence of these factors was examined in this study using information based primarily on case notes and supplemented by information supplied by the participant's Adult Attachment Interview transcripts.

Separations were defined as any period when the participant was in the care of a person other than their parents, out of their family home, for a minimum of two months. The groups were compared on age of first major separation, whether there were more than three known separations and whether the separation was into institutional care. In addition absence of father during childhood was also recorded.

One third of the sample (33.3%) had a separation before the age of 5 years, 47.9% of the group had a separation during the age of six and 12, and 31.3% had a separation after the age of 12. Of the total sample, 68.8% had experienced a separation as defined here at some point in their childhood. 64.6% of the sample had a father absent during childhood and although the trend for this was higher for the SMI:violent group (85.7%) there was no effect for diagnosis or offence type. Similarly, there were no statistical differences between the groups on age of separation however there was a trend for the PD group to be more likely to have had three or more separations (p=.08) and this was more marked in the PD violent group where 50% of the sample had experienced at least three such separations compared with the whole group sample of 27.1%. With regard to experience of institutional care, there was a strong effect for more of the PD participants having had institutional care (p=.03) with 62.2% of the PD group having had this experience compared with 29% of the SMI group. The summary data for this can be found in Table 59 below.

The total number who experienced some form of abuse was 81.3%. With regard to experience of physical abuse, 72.9% of the sample reported significant physical abuse, with the trend for this to be somewhat higher in the SMI:violent group (85.7%). There were no statistically significant differences between groups. For sexual abuse, differences did emerge, with both the PD group and the sexual offenders reporting more sexual abuse in childhood (p=.01) and the trend for this being marked in the PD:sexual offending group where 85.7% of the sub group reported being sexually abused. The summary data for this can be found in Table 60 below.

Table 59 Experience of institutional care in childhood

N %	Final groups				Total
	SMI:sexual	SMI:violent	PD:sexual	PD:violent	
Not institutionalized	7	10	5	4	26
	70	71.4	35.7	40.0	54.2
Institutional care	3	4	9	6	22
	30	28.6	64.3	60.0	45.8
Total	10	14	14	10	48
	100	100	100	100	100

Exact p = .17, logistic regression p=.84 (offence) and p=.03 (diagnosis)

Table 60 Experienced sexual abuse in childhood

n %	Final groups				Total
	SMI:sexual	SMI:violent	PD:sexual	PD:violent	
Not sexually abused	6	12	2	6	26
	60	85.7	14.3	60.0	54.2
Sexually abused	4	2	12	4	22
	40	14.3	85.7	40.0	45.8
Total	10	14	14	10	48
	100	100	100	100	100

Exact p = .001, both offence and diagnosis effects significant at p = .01 in logistic regression.

Overall it can be seen that this sample of mentally disordered offenders experience high levels of abuse and separation in their childhoods, with 68.8% experiencing a separation and 81.3% some kind of physical or sexual abuse. There were trends for the SMI:violent group to be more likely to have a father absent during childhood than the other three groups and for the PD group (and particularly the PD:violent group) to have had at least three separations in childhood compared with the SMI groups. There was a statistically significant effect for the PD group to have been more likely to have had experience of institutional care than the SMI group. Finally, both the PD group and the sexual offending group were more likely to have experienced sexual abuse at levels of statistical significance when compared to the SMI group and the violent group respectively.

Discussion of results

In keeping with predictions, the sample of MDOs did have a higher proportion of insecure classifications and CC/U classifications (when collapsed) than referential samples of non-clinical populations. When the MDOs were compared to the referential clinical samples, there was also some evidence for differences in insecure classifications, although the picture was a more complex one. The MDOs tended to be rated as having fewer F and E classifications than the other clinical groups reported. Findings with regard to CC and U classifications are also complex as the data reported in the meta-analytic paper used for most of the comparisons collapsed the U and CC categories. This meant it was not possible to specifically compare the MDO group with the clinical referential groups for either U or CC ratings. This distinction is clearly a more important one for clinical than non-clinical populations due to the relatively higher proportion of U transcripts that have been found in many clinical groups.

More specific differences do emerge when subscale scores are examined. These should be treated tentatively as the reliability rating for the Adult Attachment Classification system (Main et al., 1991) does not take account of inter-rater reliabilities on subscale scores, although these are clearly influential in determining final class. MDOs have higher scores for 'neglect' and lower scores for coherence of mind and transcript when compared with both clinical and non-clinical groups. On states of mind scales they also score higher for 'idealisation' and lower for 'involving anger' than other clinical groups. The MDOs also score higher for 'rejection', 'derogation', 'poor recall' and 'passivity' and lower for 'loving' than non-clinical samples.

With regard to comparison between the specific groups under study, the predictions that there would be more E classifications in the sex offender group and more D classifications in the violent group were not statistically supported although they were in the direction predicted. The estimates of effect sizes however are supportive of the hypothesis that E is associated with sexual offences and D with non-sexual violence and may provide the basis for a power calculation for a larger study.

Similarly, no statistically significant differences were found on the scales for states of mind, for passivity, involving anger, lack of recall or derogation, although differences between the groups approached significance for diagnosis on the 'derogation' scale with the PD group tending to score higher ($p=.053$). The groups did differ on 'idealisation' scores for both diagnosis and offence type, with the SMI group scoring higher for idealisation ($p=.004$) and the sexual offenders scoring higher than the violent offenders ($p=.023$).

Finally differences were found between the groups on the scales for experience with the PD group scoring higher for rejection in general than the SMI group and the violent group scoring higher for maternal rejection than the sexual offenders. The PD group also scored higher than the SMI group for maternal, paternal and highest parental neglect scores.

Chapter 7. Reflective Function

Introduction

A measure of Reflective Function has been developed out of the coding system for the Adult Attachment Interview. The original coding system has a subscale called 'meta-cognitive monitoring' which is rated according to evidence of the participant's capacity to reflect, *in situ*, upon their own thought processes, mental state and functioning. It shows a capacity to both interact with another and also to reflect on one's own part in that interaction, particularly to ensure logic, coherence and truth in the account that is being offered. The presence of meta-cognitive monitoring is often an indicator of secure adult attachment functioning.

However, the Adult Attachment Interview itself is not an optimal setting in which to assess meta-cognitive monitoring. Firstly, the opportunity to talk about one's early experiences and the impact they had, can invite a pseudo insightful commentary. Pop psychology is prevalent nowadays and comments referring to co-dependency, addictive qualities, repeated patterns of behaviour and so on, no longer necessarily imply insightful recognition. Additionally, a person who has had a very straightforward and relatively happy childhood, without complicated losses or adverse experiences or economic hardship, may provide an account of their history with little need to reflect on the complexities of that experience. Thus, although evidence for meta-cognitive monitoring may occur in some transcripts, it is by no means to be expected in all.

Fonagy and colleagues at University College London recognised the importance of a quality of meta-cognitive monitoring which was linked to a capacity to reflect on the experience of another person, to put oneself in another's shoes. They suggested that this was likely to provide the roots for empathic understanding (and attunement between caregivers and their children) and to provide the potential for interpersonal understanding and reflexive relationships. Fonagy and his colleagues considered that the requirements of the meta-cognitive monitoring scale were too high to establish the presence of reflective

thought in the interview and devised a more comprehensive scale that could be applied to the interviews.

The original work is set out in Fonagy et al., (1991) with an early version of the rating system described in Fonagy et al., (1995a). The system itself Fonagy et al., (1997b) addresses a number of domains which are set out in Table 61, below.

Table 61. Domains of Reflective Function

RF Domains
Awareness of the nature of mental states
The explicit effort to tease out mental states underlying behaviour
Recognising developmental aspects of mental states
Mental states in relation to the interviewer

Each of the domains is further broken down into areas that may take account of responses that occur within the overall domain. For example, one such area in the domain 'awareness of the nature of mental states' is 'awareness of the defensive nature of certain mental states'. However, there is an express acknowledgement that the manual is a guide and is not prescriptive, and in particular that not all expressions of reflective function could be covered in such a manual. It is left to the rater to identify and use discretion in rating examples of reflective functioning. It is also acknowledged that there is some heterogeneity in the nature of poor or absent reflective function. For example, Fonagy et al., (1997b) distinguish between: rejection of RF; disavowal of RF; bizarre, unintegrated or inappropriate RF; distorting or self-serving RF; naive or simplistic RF; and overly analytic or hyperactive RF. These different modes of reflective function may be important in terms of clinical intervention and perhaps in understanding the personality of the respondent.

The potential range of scores on this measure is -1 to 9, with -1 indicating a 'negative' reflective attitude in which the participant actively resists a reflective stance and 9 an exceptional capacity for reflective function that is apparent throughout a transcript.

Application to forensic populations:

Fonagy and colleagues have argued (for example, Fonagy et al., 1995b; Fonagy, Moran, & Target, 1993; Fonagy et al., 1997c) that an impaired capacity to mentalise (which can be measured in low or impaired reflective function) is an important factor in violent acts. Early attachment experience that does not provide the infant with the experience of a responsive caregiver who can internalise some of the infant's experiences (for example, anxiety, frustration and distress) can lead both to insecure attachment status and also to constraints on the child's capacity to reflect on their own and others' states of minds. In the face of threats to the self (psychological or physical) such a child has a limited repertoire of behaviours available to them with which to respond. Indeed there is some evidence Fonagy et al., (1997c) that children with conduct problems are both perceived by their peers, and also see other children's behaviour, as aggressive even when it is neutral. This lack of capacity to put oneself in another's shoes, to have some fluidity of thinking between self and other has been linked to impaired capacity for empathy and also to the potential to 'de-humanise' others. A number of authors, including Fonagy et al., (1997c); Glasser, (1998); Sohn, (1995) have suggested that proximity (particularly in a situation of threat or stress) to another person can trigger a violence defensive response. This is described more fully in Chapter 2.

In a conference presentation Levinson et al., (1999) presented Reflective Function data for a prison population. They reported that prisoners had significantly lower Reflective Function than a comparison clinical group, and that in this sample, low Reflective Function was associated with a dismissive attachment classification. They also noted that violent prisoners had lower Reflective Function than non-violent prisoners. Levinson et al., (1999) hypothesised that this is related to early experiences of abuse (more common in the prison population) which promotes defensive functioning and inhibits the individual's capacity to reflect on their own or others' state of mind.

Work looking at deficits in social competency from a more cognitive perspective by Hudson & Ward, (2000) supports these ideas from a different theoretical position. They identify difficulties in intimacy, empathy and cognitive distortion (all linked with poor reflective function) as key factors in sexual aggression.

In this thesis, it was predicted that Reflective Function would be low in the sample interviewed when compared to normal and clinical populations in the literature. It was further hypothesised that RF might be lower in the non-sexually violent group than in the sexual offenders.

Results

External Comparisons

As stated above, we adopt the hypothesis of Fonagy et al., (1997c) that the psychodynamics of aggression involve an impaired capacity to 'mentalise' and reflect on both others and ones own experience. This yielded the following predictions

- *The whole group will show lower RF scores when compared with 'normal' or other 'clinical' non-criminological referential data.*

The sample means were compared with sample means for reflective function reported in the literature by Fonagy et al., (1996) for both clinical and non-clinical groups. These are presented in Table 62 below. As expected the MDOs score lower than for both clinical (<.005) and non clinical (<.005) groups.

Table 62 Comparisons with clinical and non-clinical referential groups for RF

Reflective Function	Referential Mean	Sample	t	d.f.	p	Diff. Ref. minus sample	95% C.I. diff.
Clinical	3.7	1.26	7.93	128	<.005	2.44	1.83 to 3.05
Non-clinical	5.2	1.26	14.59	131	<.005	3.94	3.41 to 4.47

Internal Comparisons

The prediction being tested here is that violence betrays a mental organisation with a tendency towards modes of splitting and denial that will be demonstrated in even lower RF scores for the violent offenders than sexual offenders.

The distribution of RF scores for the whole sample is presented in Table 63, below. Summary data is presented in Table 64, below and a between subjects ANOVA of

Reflective Function against diagnosis and offence type in Table 65, below. A graphical comparison of the groups is presented in Figure 27, below. It can be seen that in this sample, overall RF scores were extremely low (mean, 1.26) with the most frequently occurring score being zero (the score for 15 of the sample) and a large concentration of scores being two or below (n=30). The mean score for the violent group was slightly lower than for the sexual offenders, however this was not statistically significant. However, an ANOVA did reveal a difference between the SMI and the PD groups, with the SMI group demonstrating significantly lower RF than the PD group (p=.006).

Table 63. Frequency's of RF scores

RF score	Frequency	Percent	Valid Percent	Cumulative Percent
-1.0	4	8.3	8.3	8.3
.0	15	31.3	31.3	39.6
1.0	8	16.7	16.7	56.3
1.5	3	6.3	6.3	62.5
2.0	6	12.5	12.5	75.0
2.5	2	4.2	4.2	79.2
3.0	5	10.4	10.4	89.6
4.0	5	10.4	10.4	100.0
Total	48	100.0	100.0	

Table 64. Summary data of RF scores by offence type

	Nature of Index Offence	N	Mean	Std. Deviation	Std. Error Mean
RF	Sexual	24	1.375	1.562	.319
	Violent	24	1.146	1.433	.293

Table 65. Between subject ANOVA of RF against offence type and diagnosis

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18.113	3	6.038	3.093	.037
Intercept	71.054	1	71.054	36.403	.000
Diagnosis	*16.304*	*1*	*16.304*	*8.353*	*.006*
Offence type	1.205E-02	1	1.205E-02	.006	.938
Diagnosis* Offence type	1.179	1	1.179	.604	.441
Error	85.882	44	1.952		
Total	180.250	48			
Corrected Total	103.995	47			

a R Squared = .174 (Adjusted R Squared = .118)

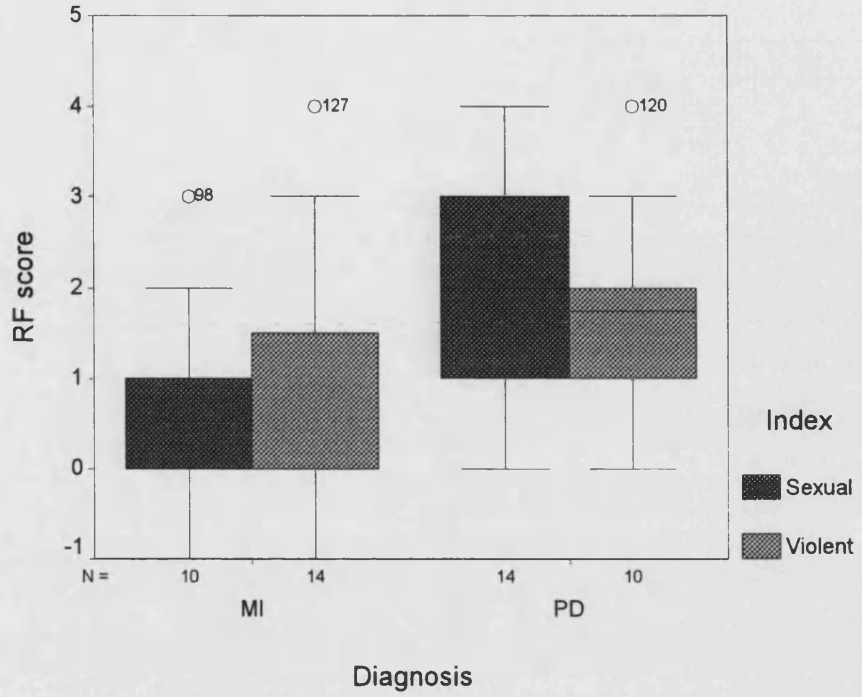


Figure 27. Box plot for Reflective Function

Discussion of results

RF scores for the sample were very low, with a mean of 1.26. As expected, the sample of MDOs scored lower on RF than both non-clinical and clinical groups in the literature. Although the predicted difference between sexual and violent offenders for RF was not found, with only a small trend in the predicted direction, there was a significant difference in scores between the SMI and PD groups, with the SMI group scoring lower on RF, though the PD group in this study, like the SMI group, scores markedly lower than the clinical groups reported in Fonagy *et al.*, (1996).

Chapter 8. Repertory Grids

Background

The Repertory Grid technique arose out of developments in Kelly's Personal Construct Theory (Kelly, 1955). It was one of a number of assessment techniques used to "open the window" on a person's construing of the world and the significant other people in it. By and large these tools (including for example self characterisation) tap the themes that an individual uses, often on a repeated basis, to make sense of the world around them. Such constructs act as a kind of shorthand for the individual to anticipate new events and to identify those domains of their experience that they see as similar and those which they differentiate as different. Kelly argued that constructs are unique to the individual (hence the "personal" in "personal construct theory/psychology") and that they are relational. For example, good is not a concept experienced in isolation, but one that acquires its meaning in relation to that which is similar to good and that which is not. In this way, constructs are bi-polar. We make sense of 'good' as we differentiate it from 'bad'. The use of 'good' and 'bad' as poles on a construct is a somewhat stereotyped one and one therefore likely to be familiar to most native English speakers. However, if an individual is pressed for a slightly more complex response we may discover that for one person 'good' has a contrast pole of 'wicked' whereas for another it may have a contrast pole of 'badly behaved', for another 'unkind' and for yet another 'incompetent'. We can see that the tools Kelly fostered allowed a more complex examination of an individual's construing of the world.

The Repertory Grid became established as a clinical assessment tool in the mid 1960's and was used to explore a person's repertoire of personal constructs and to give the clinical observer a further mechanism to understand how a person makes sense of their world. Since that time, they have been used in clinical, research, educational, industrial sociological and organisational settings.

Essentials of Repertory Grids

The repertory grid is made up of elements and of constructs that are rated in relation to the elements. Elements are often significant people (mother, father, therapist), roles (friend,

person in authority, disliked person, etc) or aspects of self (actual self, ideal self, self as others see me, etc.) and the constructs are then either *supplied* in relation to a domain of interest of the clinician/researcher or are *elicited*, for example by asking how two of the people are similar and different from a third. However, this does not have to be the case and elements could be aspects of experience or other entities. For example, an anorectic patient might rate different food stuffs (apple, cup of tea, bread, celery, banana, biscuit, etc.) on a range of constructs (high-low in calories, tempting-untempting, threatening-unthreatening, likely to cause a row-unlikely to cause a row, etc.). A sociologist might be interested in how different religions (as elements) were viewed on various constructs by children from multi-faith as opposed to single faith geographical areas.

For each individual there is variation in the range of constructs they use to make sense of the world. For some people, their judgements are informed by a broad range of constructs whereas others use a more limited repertoire. This often becomes apparent when constructs are *elicited*, the quicker constructs are repeated, the more limited the construct system. Also, the strength of constructs are organised in a hierarchical way to some extent with some constructs being super-ordinate or more important in terms of organising an individual's thinking.

Types of Repertory Grid

The repertory grid technique is a flexible one and different approaches to grid design have been developed. For example, in the Dependency Grid (Kelly, 1955) (Winter, 1992) the respondent is presented with a number of potentially difficult situations and asked who they would approach for help. The results of this provide information about the extent to which a person can look to a number of people for help or the extent to which they are very constrained on the people from whom they will accept help. The model that was chosen for this study is that of a *dyad grid*. The dyad repertory grid (DRG) provides a structured yet flexible method of assessing how a person perceives their interpersonal world by asking them to rate constructs according to how they view a specified "other" (e.g. Mother, friend) and also how they perceive the "other" views them. It therefore begins to tap a capacity to reflect upon another's view that may be different from ones own. This requires some degree of flexibility in thinking in itself and its link with 'Reflective Function' will

be examined in this thesis. Furthermore, a capacity to discriminate between these two directional aspects of one relationship may be an indicator of some capacity to tolerate ambivalence and will later be examined in relation to secure/insecure attachment classification on the AAI.

One of the advantages of repertory grids is that they are somewhat opaque, which provides access to particular patterns of responding that may not be immediately evident from a simple interview. In a dyad grid, this opacity is specifically available in terms of the nature of dyadic relationships. Thus, the dyad grid provides a measure of the perception of specific interpersonal relationships. Its structural properties, rating the self-to-other and the other-to-self directions separately for each of the specified relationships, each on the same constructs, enable both conventional analysis of items and scales constructed a priori like any questionnaire. However, its specific strength is that the internal structure also allows detailed idiographic analysis.

Rating Repertory Grids

The rating of the elements on the constructs yields a grid of scores and this can be examined in a number of ways. Winter, (1992) points out that using the *elicitation* procedure also allows content of items to be examined, whereas the grid itself provides access to look at the structure of a person's construct system. Classification systems have been developed for use with *elicited* grids (e.g. Landfield, 1971). The *elicitation* is more in keeping with personal construct theory where the unique or idiographic nature of people's experience is paramount (each individual as a naïve or "personal" scientist), however, providing *supplied* grids does allow for group comparisons.

With regard to the structure of the grid, it is possible to look for particular patterns: similarity or dissimilarity between ratings on specific elements (e.g. opposite sex parent and partner) or scoring patterns on particular constructs (e.g. elements scored very extremely indicating strongly held polarised views or all elements except one being scored at one pole). A description of how to make initial interpretations of grid data can be found in Houston & Evans, 1998. More complex methods of analysis, such as hierarchical cluster analysis and principal component analysis can be used to examine elements and constructs separately and

together. Finally, to gain a broader picture with particular groups of grids, a mean grid can be derived or methods such as individual differences scaling (INDSCAL) can be used. The first widely available computerised methods for grid analysis were developed by Slater (1972; 1976; 1977) the most famous being INGRID. This methodology provided access to grid analysis for many people for years. However, other methods developed subsequently, including Focus (Thomas, 1976), Sociogrids (Thomas, 1979), Circumgrids (Chambers & Grice, 1986) and Flexigrid (Tschudi, 1984). Winter, (1992) provides a summary of these methods. However, the development in mathematical models in psychology and psychotherapy research in the last couple of decades, such as hierarchical cluster analysis, unfolding analysis, has opened up once again methods that allow examination of grid data. A good review of the various methods for analysing grids can be found in Leach, Freshwater, Aldridge, & Sunderland, (2001). Although some of these methods are highly mathematically complex and may not be easily accessible to all researchers or clinicians, it should be remembered that the overall aim of any method is to draw out underlying patterns within the original grid data.

Use of repertory grids with forensic populations

In previous clinical work, the author had found Repertory Grids to be a useful tool to use clinically with forensic populations. For example, the structured nature of the assessment procedure is one that is manageable and accessible to patients who may otherwise be reluctant or unable to speak freely about their relationships and attitudes. Many forensic patients have a limited vocabulary and conversational repertoire to describe their experiences. They often come from family backgrounds where expression of emotional experience was very limited and discussion of relationships was virtually non-existent. The structured approach of the grid allows the person to use more fully the range of their attitudes than may be accessible from open questions, which may be experienced as pressurising. Watson, Gunn, & Gristwood, (1976) describe this effect of the grid in their work with long term prisoners. They show how when using a grid, prisoners choose feeling words to describe their response to stressful social situations (for example, feeling 'tensed up') rather than action words (for example, 'punching out'). Houston et al., (1993) demonstrated the utility of repertory grids as a method for examining change in construing in a group of sexual offenders, following group treatment. Thomas-Peter, (1992) used

computerised repertory grids to look at social judgements in personality disordered offenders and found that they made more judgements more quickly and with a more extreme response style than normal controls. Repertory Grids have also been used widely in clinical work with mentally disordered offenders, although this work is largely not reported in the literature.

Repertory Grid used in this study

A Repertory Grid approach was chosen for this study for a number of reasons. Principally, it was thought that the methodology would allow for an intermediate level of examination between simple self report of the questionnaire which would be more likely to access a conscious domain of processing, and the more process oriented instruments of the Adult Attachment Interview (AAI) and the Reflective Function scale (RF), which would access more unconscious processes. It provided a degree of opacity that may yield underlying themes and relationships that could be examined on a group basis, without the depth process analysis of the AAI.

Secondly, a dyad grid was chosen as it was hypothesised that subjects' perception and experience of their key relationships would shed light on the interpersonal nature of violent crime. Dyad Grids not only ask about significant relationships but also ask the participant to try reflect on another's experience thus examining perceptions about the bi-directional nature of relating to others.

Thirdly, the grid chosen for this study is one that has supplied elements and constructs. This was done for a number of reasons. The theoretical interest in the thesis is not that of personal construct theory and so the repertory grid is primarily being used as a further assessment tool. It was felt that group comparisons were important in line with the hypotheses that were driving the study and which were being applied to the other measures. Finally, specific hypotheses concerning relationships between the results of the dyad repertory grid and other measures being used were made. It was decided to have a grid of manageable size so that prominent themes would not be obscured by the sheer numbers of potential relationships between elements and constructs in the grid. The use of dyad grid methodology immediately doubles the number of elements in the grid from a

simple interpersonal grid (self to other and other to self). This restricted the number of specific relationships that could be examined. Six relationships (yielding 12 elements) were chosen to be examined on 8 constructs.

The relationships chosen were: Mother; Father; Friend; Victim; Therapist/key nurse; partner. Of these relationships, it was assumed that parents would be central influences on the person; that friend would access those current domains of importance that may be differentiated from victim; partner was chosen as a relationship likely to elicit more complex constructs; and therapist/key nurse as more neutral ones. The constructs chosen were: Understanding; Sexually attracted to; Controlling; Rejecting; Loving; Neglecting; Sexually Intimidating; Protective. These were partly drawn from previous work carried out using repertory grids with sexual offenders (Houston et al., 1993) and from key constructs of experience that were held to be important and rated on the Adult Attachment Interview. It was also felt to be important to differentiate at least two different aspects of sexual experience. Sexually attracted to was chosen to examine whether there were differences in objects of sexual interest in sexual offenders and non-sexual offenders, whereas "sexually intimidated by" was chosen to try and locate whether an area of sexual anxiety was differentially held by the two groups. Instructions for the interviewer can be found in Appendix 8.

Results

Repertory Grid raw scores: Missing items

Two of the final fifty-three participants did not complete the grid, leaving a total of fifty-one grids (raw data for all grids can be found in Appendix 8). A missing rating anywhere in a grid means that both the element and the construct intersecting on the missing rating must be removed if the grid is to be analysed by many traditional methods. This can radically reduce the numbers of grids available for certain analyses. The number of missing items did not differ between groups and the mean number of missing items was 4.7. See Table 66, below for a breakdown of missing items between groups. The difference in rates of omitted items between groups was not statistically different between the groups

Table 66. Means of missing items by group

Final groups	Mean	N	Std. Deviation
SMI:sexual	4.0	11	6.9
SMI:violent	6.1	16	10.5
PD:sexual	3.1	15	5.9
PD:violent	5.9	9	7.9
Total	4.7	51	8.0

(K-W $X^2 = 1.2$, df=3, p=.75).

The results can also be affected when a participant refuses to complete the ratings for a whole construct that will then impact on all the elements, or vice versa. The constructs and elements were therefore looked at separately to see which were missing at least one rating. The data for constructs is presented in Table 67, below. The data for elements is presented in Table 68, below. It is noteworthy that all the constructs have a least one missing rating for at least a quarter of the total number of grids (51).

Table 67. Number of missing ratings per construct

Construct		MI:sex	MI:viol	PD:sex	PD:viol	Overall
1	N	3	6	3	3	15
	%	27.3%	37.5%	20.0%	33.3%	29.4%
2	N	3	4	3	3	13
	%	27.3%	25.0%	20.0%	33.3%	25.5%
3	n	3	4	2	4	13
	%	27.3%	25.0%	13.3%	44.4%	25.5%
4	n	3	5	5	4	17
	%	27.3%	31.3%	33.3%	44.4%	33.3%
5	n	3	4	3	3	13
	%	27.3%	25.0%	20.0%	33.3%	25.5%
6	n	3	6	5	4	18
	%	27.3%	37.5%	33.3%	44.4%	35.3%
7	n	3	6	4	4	17
	%	27.3%	37.5%	26.7%	44.4%	33.3%
8	n	3	4	3	3	13
	%	27.3%	25.0%	20.0%	33.3%	25.5%

Table 68. Number of missing items per element

Elements		MI:sex	MI:viol	PD:sex	PD:viol	Overall
1	N		1		1	2
	%		6.3%		11.1%	3.9%
2	N		1	2	1	4
	%		6.3%	13.3%	11.1%	7.8%
3	N		1	1	1	3
	%		6.3%	6.7%	11.1%	5.9%
4	N		1	2	1	4
	%		6.3%	13.3%	11.1%	7.8%
5	N		1			1
	%		6.3%			2.0%
6	N					
	%					
7	N	2	4		1	7
	%	18.2%	25.0%		11.1%	13.7%
8	N	2	3		1	6
	%	18.2%	18.8%		11.1%	11.8%
9	N	1	4	4	2	11
	%	9.1%	25.0%	26.7%	22.2%	21.6%
10	N	1	4	2	2	9
	%	9.1%	25.0%	13.3%	22.2%	17.6%
11	N		1	1		2
	%		6.3%	6.7%		3.9%
12	N		1	1		2
	%		6.3%	6.7%		3.9%

With regard to the elements, a more complex picture emerges. For example, there are no missing data for element 6 ("Your mother towards you") and only one for its complement, element 5 ("You towards your mother"). The elements that are omitted most often are 9 and 10 concerning the participant's victim. Although this is a particularly interesting element pair in many ways, the higher number of missing items might be accounted for by the victim being a stranger to the offender. A person who committed an offence against a victim unknown to them may not feel able to comment on some of the constructs. However, it also means that it is not possible to try to maximise the n of the data set for a subsample with complete grid ratings for a selection of the elements/constructs as this

would lose any focus on the relationship with victim. The distribution of missing items for the grid is presented in Table 69, below.

Table 69. Distribution of missing items in the dyad grid

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding	1	2	1	1	0	0	6	6	2	6	1	1
Sexually attracted to	1	3	2	2	0	0	6	6	3	4	1	2
Controlling	1	1	1	1	0	0	6	6	4	4	1	1
Rejecting	1	1	1	2	0	0	6	6	7	6	1	1
Loving	1	1	2	2	0	0	6	6	4	4	1	2
Neglecting	2	1	1	2	1	0	6	6	6	7	1	1
Sexually intimidating	1	1	2	3	0	0	7	6	6	3	2	1
Protective	1	2	2	2	0	0	6	6	5	5	1	1

There were no significant differences by groups in the proportions with full or incomplete grids (exact p=.60). However, there are very few complete grids in the PD:violent group. This is set out in

Table 70, below.

Table 70. Complete and incomplete grids by group

		Groups				
		MI:sexual	MI:violent	PD:sexual	PD:violent	Overall
Some missing data	N	3	6	7	5	21
	%	27.3%	37.5%	46.7%	55.6%	41.2%
Complete grid	N	8	10	8	4	30
	%	72.7%	62.5%	53.3%	44.4%	58.8%
Overall	N	11	16	15	9	51
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Repertory Grid raw scores: Maximum and Minimum responses

The maximum and minimum ratings for each potential response (each element on each construct) are presented in Appendix 9 for the whole sample and each sub-group. These responses indicate whether there is a pattern in scoring for any particular element construct relationship or a difference in pattern of responding across groups. This can be investigated by carrying out ANOVAs for each set of responses. These were carried out using S+ and as there may be an effect of the order in which terms are entered, the data was analysed firstly with diagnosis entered as the first variable and then re-analysed with offence type entered as the first variable. The tables presenting of p values (and significance at .05) for the interactions, the effects of diagnosis and of offence type for each order in which items were entered can be found in Appendix 10. The results were quite similar. Those presented below are where diagnosis is entered as the first term. As the main investigation of this thesis relates to difference in offence type, entering diagnosis as the first term was deemed to be appropriate as providing a more conservative test of the effect of offence type. The significance charts are presented in Table 71 below, Table 72 below and Table 73 below. The interaction table shows that there are only three significant interactions; the probability of this occurring by chance alone are p=.86. None of these are repeated for the diagnosis or offence type statistically significant results.

The results for diagnosis however, reveal a more interesting picture with 16 of the responses showing significant differences between groups with the probability of achieving this by chance alone as p=.00002. Examining the group means (Appendix 10) shows that SMI participant score higher for the 'understanding', 'loving' and 'protective' constructs on the elements specified and PD participants score higher for the 'rejecting', 'neglecting' and 'sexually intimidating' constructs on the elements specified. For the 'controlling' construct, the SMI group score higher for the elements 'friend; father; and mother towards you' whereas the PD group score higher for the element 'you towards your victim'. On the 'sexually attracted to' construct the PD group score higher for the element 'you towards a friend' whereas the SMI group score higher for 'you towards mother'.

The results for offence type must be more tentative as there were seven significant results and the probability of achieving this by chance alone is p=.2. Examining the group means (Appendix 10) shows that the sexual offenders score more highly for the constructs 'understanding' sexually attracted to' and 'sexually intimidating' on the elements shown (largely victim) whereas the violent participants score higher for the construct 'rejecting' of 'you to your victim' and the construct 'loving' both for 'you to your therapist' and also 'your therapist to you'.

Table 71 Interaction significance chart (using criterion of statistical significance of .05)

Significance for interaction effect in 2-way ANOVA for each grid rating ANOVA entering diagnosis first	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you	Number significant at p<.05
Understanding	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Sexually attracted to	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Controlling	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Rejecting	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	*	1
Loving	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Neglecting	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	NS	1
Sexually intimidating	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Protective	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	NS	1
No. significant	0	0	0	0	0	0	0	2	0	0	0	1	3

Table 72 Diagnosis Significance chart (using criterion of statistical significance of .05)

Significance of Effect of diagnosis in 2-way ANOVA for each grid rating ANOVA entering diagnosis first after interaction term	You towards a friend	Your friend towards you	You towards you father	Your father towards you	You towards your mother	Your mother towards you	You towards your partner	Your partner towards you	You towards your victim	Your victim towards you	You towards your therapist	Your therapist towards you	Number significant
Understanding	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	1
Sexually attracted to	*	NS	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	2
Controlling	NS	*	NS	*	NS	*	NS	NS	*	NS	NS	NS	4
Rejecting	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Loving	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	*	2
Neglecting	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Sexually intimidating	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	2
Protective	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	1
No. significant	1	1	3	6	0	2	0	0	2	0	0	1	16

Table 73 Offence significance chart (using criterion of statistical significance of .05)

Significance of effect of offence in 2-way ANOVA for each grid rating ANOVA entering diagnosis first after interaction term	You towards a friend	Your friend towards you	You towards you father	Your father towards you	You towards your mother	Your mother towards you	You towards your partner	Your partner towards you	You towards your victim	Your victim towards you	You towards your therapist	Your therapist towards you	Number significant
Understanding	NS	NS	NS	NS	NS	NS	NS	*	*	NS	NS	NS	2
Sexually attracted to	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Controlling	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Rejecting	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Loving	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	*	*	2
Neglecting	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Sexually intimidating	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Protective	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
No. significant	0	0	0	0	0	0	0	1	4	0	1	1	7

Slater Repertory Grid plots

These are presented for each of the four sub groups. These plots map the loadings of the elements and constructs on the first two principal components of principal component analyses of each grid (each mean grid for the group grid plots). The first and largest component is plotted on axis 1 and the second largest on axis 2.

The bigger the first component, the more of the the responding pattern that could be simplified into one dimension. This is sometimes considered to indicate a more rigid construing system. In the samples presented here the SMI:sexual group mean grid has a first component that accounts for 64.9% of the variance, with the second component reaching 12.9% (cumulative total of 77.8%). For the SMI:violent group, the first component accounts for 56.7% of the variance in the mean grid for the group, with the second component reaching 27.3% (cumulative total of 83.4%). For the PD: sexual group, the first component accounts for 49.7% of the variance in the mean grid for the group, with the second component reaching 21.0% (cumulative total of 70.7%). For the PD:violent group, the first component account for 71.2% of the variance in the mean grid for the group, with the second component reaching 11.8% (cumulative total of 83.1%).

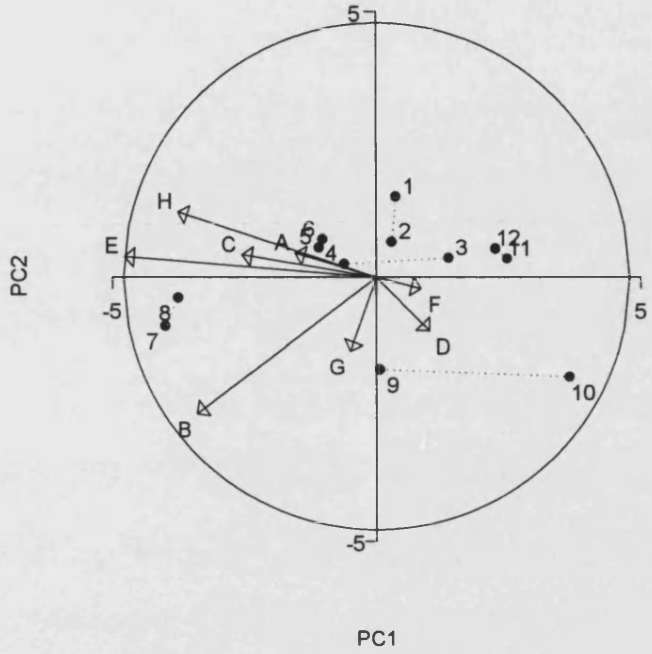


Figure 28 Slater repertory grid plot for SMI:sexual

The first component accounts for 64.9% of the variance and the second component accounts for 12.9% (cumulative total of 77.8%)

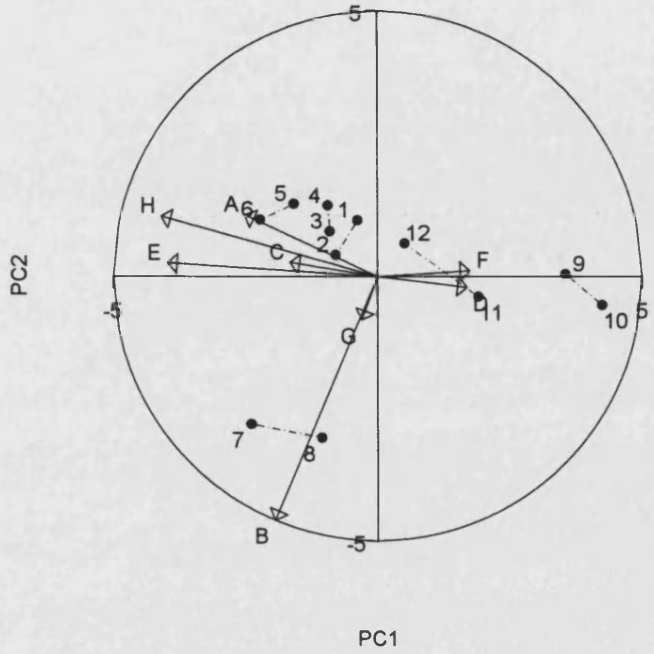


Figure 29 Slater repertory grid plot for SMI:violent

The first component accounts for 56.7% of the variance and the second component accounts for 27.3% (cumulative total of 83.4%)

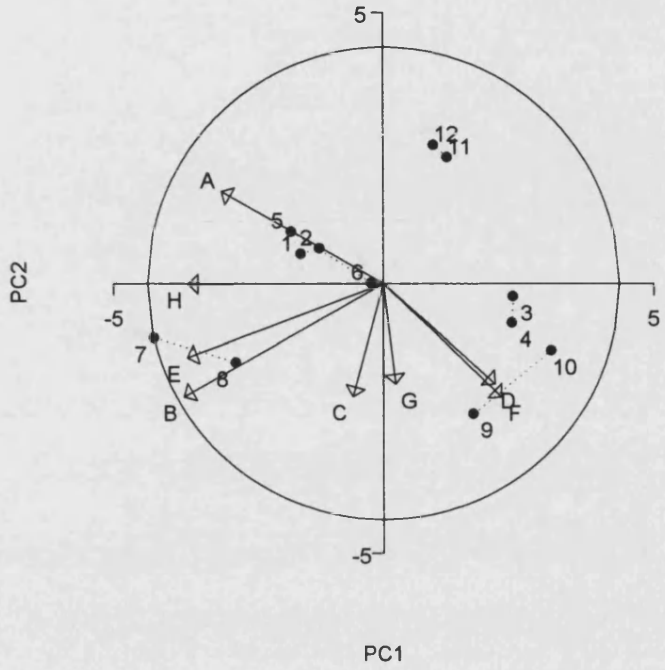


Figure 30 Slater repertory grid plot for PD:sexual

The first component accounts for 49.7% of the variance and the second component accounts for 21.0% (cumulative total of 70.7%)

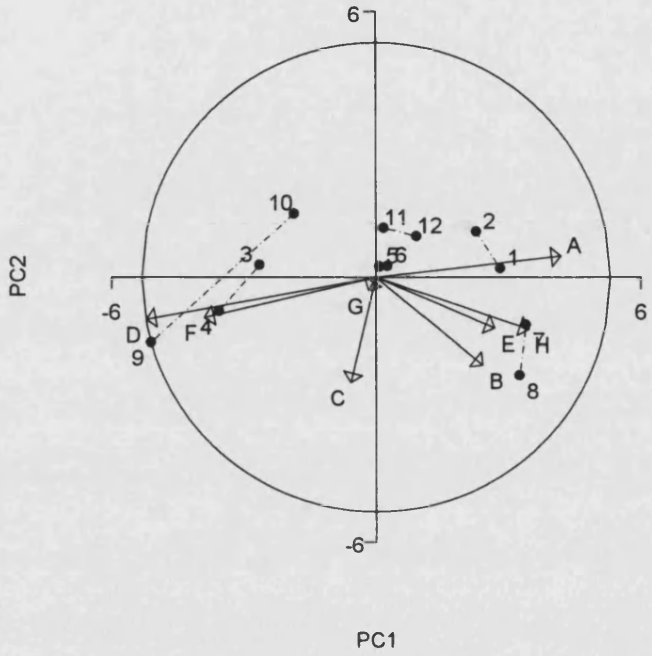


Figure 31 Slater repertory grid plot for PD:violent

The first component accounts for 71.2% of the variance and the second component accounts for 11.8% (cumulative total of 83.1%)

Predictions

Restricted construction of relationships

It was hypothesised that impaired capacity to 'mentalise' some or all relationships would be evident in specific dyad grid parameters. In particular it was thought that there may be a more polarised way of responding to key figures (for example parents, victim). This would be evidenced by a greater degree of similarity in perception of the self-other and other-self ratings of these relationships, or indeed the converse of this, a marked dissimilarity in ratings of the two directions of relationship. This more 'extreme' way of responding is here called 'restriction'. If this were so, then one might expect more restricted responding than with a more neutral figure like a friend. It was also predicted that this would be more marked for the violent group than the sexual group.

restriction(self↔ victim) > restriction(self↔friend

restriction(self↔ mother) > restriction(self↔friend)

restriction(self↔father) > restriction(self↔friend)

To compute this 'restriction', a measure was adopted which is based on the absolute difference between cityblock distances between the two paired elements expressed as a deviation from the mean of that distance across the n=30 with complete data on the grids, i.e. a distance parameter that will be high where two elements are very similar and high where they are very different. A worked example of the computation of these measures can be found in Appendix 11 and the data for the whole of the sample with complete grids (n=30) is given in Appendix 12.

The prediction was upheld for self↔ victim when compared to self↔ friend (paired t-test, t= 3.98, df=29, p=0.0004, C.I. 1.61 to 5.03) but not for self↔mother restriction (paired t-test, t= 0.38, df=29, p=0.71, C.I. -0.95 to 1.38) or for self↔father restriction (paired t-test, t= 1.27, df=29, p=0.21, C.I. -0.49 to 2.11)

As the prediction that this will be more marked in the violent group was directional, raw scores were used. The prediction was upheld for the victim distances. The mean for

sexual offenders was 17.3, S.D. 6.3, and for violent offenders the mean was 8.8 and S.D. 5.3: t(28)=3.95, p<.0005, 95% CI diff from 4.1 to 12.9, Mann-Whitney U=33.5, exact p=.001). Although numbers are very small, a 2-way ANOVA was carried out to check effect of diagnosis. This is presented in Table 74, below. The difference of sexual and violent offenders is presented graphically in Figure 32, below.

Table 74. Between subjects ANOVA for self/victim 'distance' against diagnosis and offence type

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	611.200	3	203.733	5.998	.003
Intercept	4779.338	1	4779.338	140.712	.000
Offence type	397.838	1	397.838	11.713	.002
Diagnosis	6.667E-02	1	6.667E-02	.002	.965
Offence type * Diagnosis	74.817	1	74.817	2.203	.150
Error	883.100	26	33.965		
Total	6801.000	30			
Corrected Total	1494.300	29			

a R Squared = .409 (Adjusted R Squared = .341)

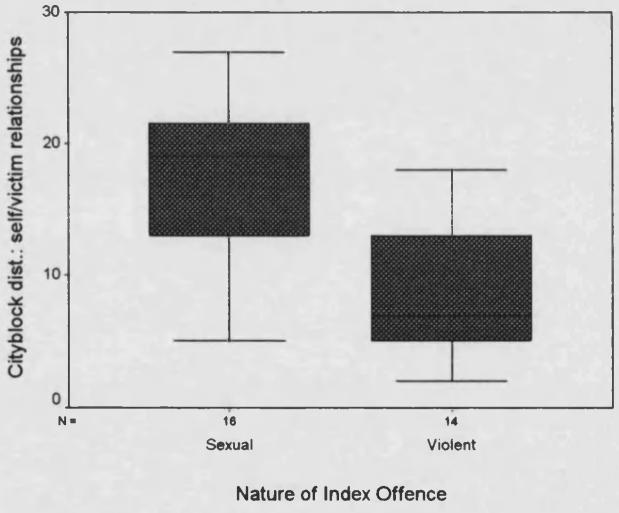


Figure 32. Box plot of self/victim 'distance' scores by offence type

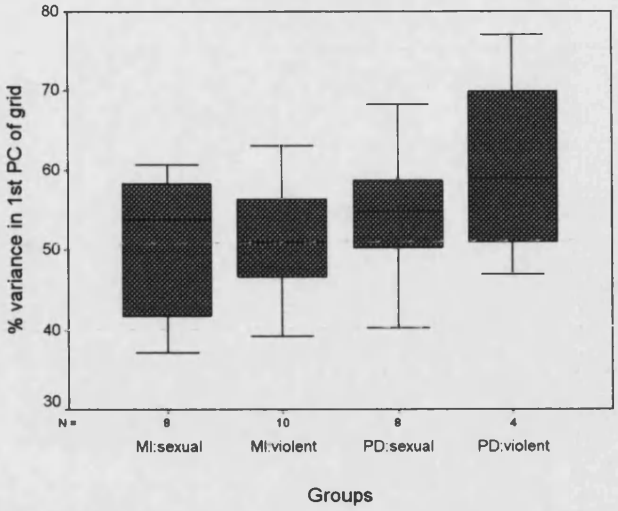


Figure 33 Box plot for size of first principal component by sub group

The predictions that self/other 'distances' would be more marked for mother and father in the violent group were not supported. For mother, the mean for sexual offenders was 6.7, S.D. 4.0, compared with violent offenders where the mean was 5.9 and S.D. 3.4: t(28)=.56, p<.58, 95% CI diff from -2.0 to 3.6, Mann-Whitney U=108.5, exact p=.89. For father, the mean for sexual offenders was 6.8, S.D. 4.9, compared with violent offenders where the mean was 7.3 and S.D. 4.5: t(28)=.26, p<.80, 95% CI diff from -4.0 to 3.1, Mann-Whitney U=99.5, exact p=.62.

Complexity of construing

The second prediction related to the following assumptions. A tightly organised construing system is indicative of difficulty accepting help and the size of the first component reflects 'range of responsiveness' on the grid. We predicted that the size of the first principal component will be high for both groups and greater for the violent group than the sexual offenders. The mean size of the first component for each group are presented in Table 75 below. A between subject ANOVA for the size of the first principal component against diagnosis and offence type is presented in Table 76 below and the data are presented graphically in Figure 28 above. The prediction that the violent group would

have a larger first component was not found, although the effect of diagnosis approached significance (with the PD group scoring higher).

Table 75 Mean size of first principal component by sub group

Final groups	Mean	N	Std. Deviation
SMI:sexual	50.7	8	9.4
SMI:violent	51.3	10	7.3
PD:sexual	54.5	8	8.3
PD:violent	60.5	4	12.8
Total	53.2	30	9.1

Table 76 Between groups ANOVA for size of first principal component

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	315.005	3	105.002	1.323	.288
Intercept	78502.929	1	78502.929	989.491	.000
Diagnosis	284.992	1	284.992	3.592	.069
Offence type	71.138	1	71.138	.897	.352
Diagnosis * Offence type	48.329	1	48.329	.609	.442
Error	2062.755	26	79.337		
Total	87366.019	30			
Corrected Total	2377.760	29			

a R Squared = .132 (Adjusted R Squared = .032)

Discussion of results

Unfortunately a number of participants found it difficult or impossible (or refused) to provide ratings of all the elements on all the constructs and only thirty participants provided complete repertory grids which reduced the sample size and statistical power considerably. There were no statistically significant differences between groups in the numbers of the missing items on the grids. Differences did emerge between groups with regard to different response patterns for ratings of particular elements on specific constructs. The majority of these were for diagnosis rather than offence type and show some interesting findings in relation to father. The SMI participants described more loving feelings both from and to father. Father was also experienced as being more understanding, protective and controlling to the participant. Conversely the PD group's responses were of greater rejection and neglect both to and from father.

With regard to relationship with mother, the only differences found were for the SMI group to report their mother being more controlling and more sexually attracted to the participant than for the PD group.

Perhaps not surprisingly some differences do emerge in relation to the two items relating to sexual behaviour: sexually attractive and sexually intimidating. The sexual group report being both more sexually attracted to, and also more sexually intimidating to, their victims than do the violent group. However, the PD group also report being more sexually intimidating to their victim (and more controlling) than do the SMI group.

It is also of interest that some differences are found on the loving construct for relationship with therapist. The SMI group have higher responses for therapist being loving to them than the PD group and the violent group report higher loving feeling both to and from their therapist than the sexual offenders.

In accordance with predictions it was found that the whole group showed a greater degree of polarised responding in rating the relationship to their victim than that with a friend and this was more marked for the violent group. However, this was not the case for the relationships with parents.

Finally although the prediction that there would be a more limited complexity of construing in the violent group, the range of responding for the whole group was relative constrained, leading to somewhat polarised response patterns.

Chapter 9. Inventory of Interpersonal Problems

Introduction

It is well known that difficulties with interpersonal relationships and functioning are common amongst violent offenders. For example, Hudson et al., (2000) set out a range of difficulties in 'interpersonal competencies' in sexual offenders that include poor social skills and confidence, difficulties with intimacy and empathy as well as cognitive distortions (or misrepresentations of another's wishes and intentions). However, there is scant literature on the interpersonal problems reported by these groups when compared to normal and other clinical populations. One aim of the use of this measure in this thesis is to examine the utility of the most widely used measure of interpersonal problems with a population of mentally disordered offenders.

The Inventory of Interpersonal Problems (IIP) is a self-report questionnaire that examines different aspects of interpersonal functioning. It consists of 127 items that tap areas of social relationships and intimacy. It aims to identify a general interpersonal stance of the individual in relation to unspecified others. Since its development, it has been widely used in clinical and non-clinical populations and it has become well known to psychotherapy researchers. It is probably the most frequently used self-report instrument specifically looking at interpersonal functioning. However, its utility has not been defined in a population of mentally disordered offenders.

Background

The IIP was originally developed by Horowitz, (1988) to 'measure distress arising from interpersonal sources'. The aim was to identify norms for the relative frequency of interpersonal problems; to identify what is achieved through treatment; and to differentiate between distress arising from interpersonal sources as contrasted with that arising from intrapersonal or from non-relational sources. Their original study used the questionnaire on two occasions ten weeks apart before treatment with 103 outpatients waiting for psychotherapy. Principal component analysis of this data yielded the same six factor structure on both occasions. Exploration suggested that the IIP revealed different

information from general symptom scales such as the SCL-90(R) (Derogatis & Cleary, 1977) and was sensitive to change over the course of a 20 session intervention.

The IIP is self administered with a clear set of instructions. Questions are divided into things that the subject finds "hard" (e.g. "It is hard for me to disagree with other people") or things that they do "too much" (e.g. "I open up to people too much") and are scored along a five point scale from "not at all" to "extremely". A mean score is calculated for the total as well as for subscales.

Since its first publication, a number of developments have taken place using the IIP. Importantly, the stability of its factor structure has been questioned (Barkham, Hardy, & Startup, 1994; Savournin et al, 1995). Despite this, or perhaps, as a result of that indeterminacy, item scores from the IIP have been combined into different scale structures related to the interpersonal circumplex model (Horowitz, 1996; Pincus, 1995; Soldz, 1995; Wiggins, 1997); to Birtchnell's interpersonal octogan model (Riding & Cartwright, 1999b; 2000); to attachment style (Horowitz, 1993); and to personality difficulties (Alden, 1993) (Gurtman, 1995) (Stern et al., 2000). Again, despite or because of this, it has become the most widely used measure of interpersonal problems in psychotherapy outcome research. These areas will be discussed in detail below.

Factor structure

Although the explication of the IIP through the use of the circumplex has dominated the literature, some research has questioned the stability and robustness of the IIP design scales as measures. Relatively early, Barkham et al., (1994) demonstrated a different factor structure in their sample of out-patients with depression and/or anxiety presenting for individual psychotherapy. A further study by Savournin, (1995) challenged the appropriateness of applying the IIP to the interpersonal circumplex on the basis that all studies, including theirs, have revealed a very large first component, through factor analysis. This has often been discarded and the subsequent components have then been applied to the circumplex. Looking at data from a sexual dysfunction clinic as well as a psychotherapy out-patient clinic, they demonstrated high levels of self reported problems in both groups. However, the data from the IIP showed differences across both gender and

the two clinics, suggesting that a much more complex system was operating and that factor structures may well be population specific, i.e. that there was not a single, robust 'normative' structure for clinical groups. A final concern relates to the generic descriptions within the questionnaire (for example, "it is hard for me to confront people with problems which come up") which are different to those relationship difficulties that patients often bring to therapy (for example, "when my partner criticises me I can't talk about it because I feel so angry"), i.e. something that might be specific to the relationship with that particular person or only generic to people allowed into particularly intimate relationships with the patient.

Interpersonal circumplex

A number of authors, drawing on the work of Leary, (1957) and others, have applied the model of the Interpersonal Circumplex to the IIP. In this model, interpersonal relatedness is organised along two dimensions, Love-hate and Dominant-submissive, see Figure 34, below.

These are then further subdivided into eight octants. Items of the IIP have been allocated to subscales that map onto these octants (Alden, Wiggins, & Pincus, 1990; Soldz, 1995). See Figure 35 below .

The application of the IIP to the circumplex has been criticised on a number of counts. Firstly, the terminology used is loaded with lay understanding of moral dimensions (*'love', 'hate'*) and it has been suggested that *closeness* and *distance* may be better expressions. Birtchnell uses the neutral terms of upper (U), lower (L), Close (C) and distant (D) in his Interpersonal Octagon, this is presented in Figure 36 below. Secondly, the IIP was criticised because it was not developed out of a theory driven methodology but subsequently drew on application of Leary's theories, as Birtchnell, (1993; 1994; 1999) suggests in his detailed critique. This debate between theoretical or empirically driven models of interpersonal functioning is also developed in a discussion between Riding & Cartwright, (2000; 1999a) and Startup, (2000), with Riding and Cartwright pointing out that their development of a theoretically driven scale structure arises in part because the

empirical approaches to looking at IIP data have produced discrepant results, in particular in relation to the factor structure. They also note that subscale scores are only meaningful and useful to clinicians where they can map on to a particular theoretical model that informs the treatment aims. Riding and Cartwright attempted to overcome some of the problems with the subscale structure of the IIP by extracting items from the IIP to theoretically fit Birtchnell's interpersonal octagon and show that this method has some empirical support.

Work by Alden et al., (1990) and Soldz, (1995) on the Circumplex, suggested that some octants are more amenable to change in psychotherapy (for example, exploitable) than others (for example, dominating, vindictive and cold). Work by Riding et al., (1999a) shows that the area in interpersonal space nearest to vindictive (competitive), or in the terminology of Birtchnell's interpersonal octagon ("upper distant"), predicts drop out in psychotherapy patients.

Figure 34. The Interpersonal Circumplex, Leary (1957)

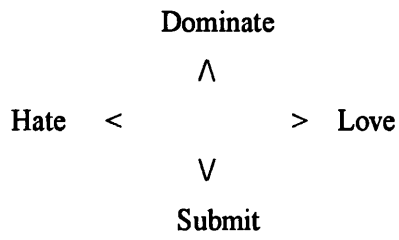


Figure 35. IIP subscales mapping to the octants of the Interpersonal Circumplex (Soldz 1995)

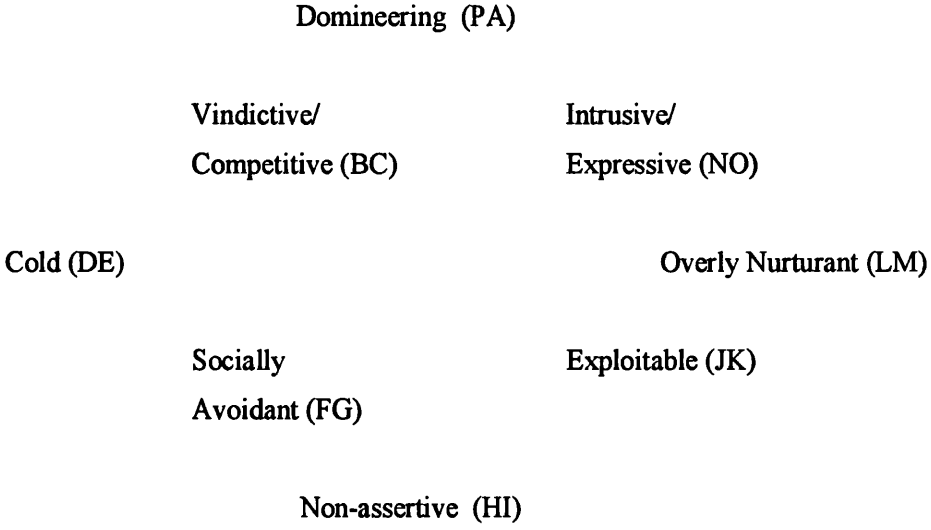
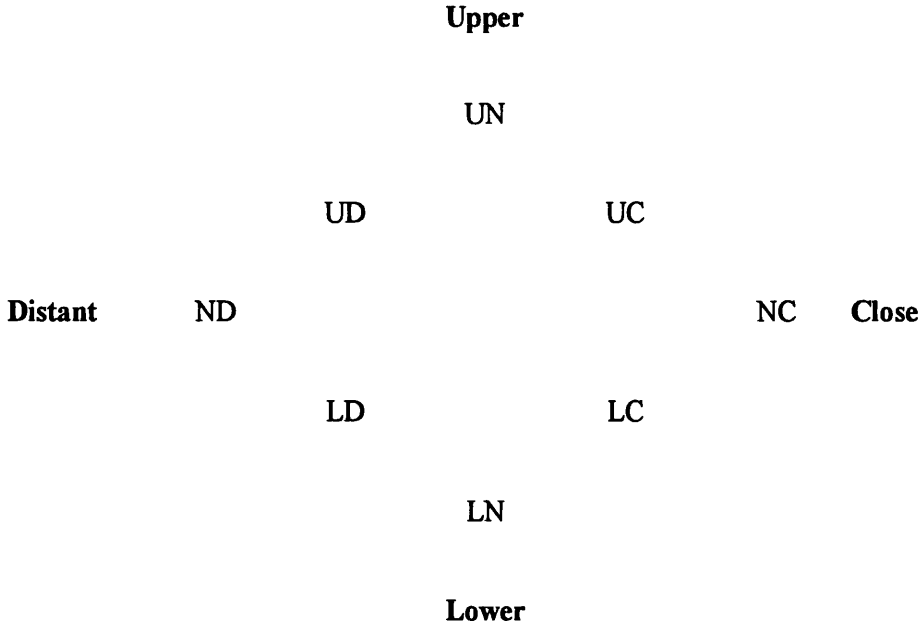


Figure 36. Interpersonal Octagon (Birtchnell, 1993, Riding and Cartwright 1999)



Further work using the IIP Circumplex (Alden, 1993) has suggested that patients with Avoidant personality disorder demonstrate different interpersonal profiles from other groups and this has implications for the utility of different interventions. Although all patients with avoidant personality disorder in their sample demonstrated non-assertion and social avoidance, the concurrent experience of other problems rated on the IIP Circumplex showed differential response to different forms of behavioural treatment. Patients experiencing problems of being 'distrustful and angry' benefited more from graded exposure procedures whereas those with problems of 'sensitivity to experience of coercion and control' showed better response to skills training.

Attachment style

In a preliminary and exploratory paper, Horowitz, (1993) describe the application of the circumplex model to the IIP and go on to develop a rating of attachment style (secure; pre-occupied; dismissive avoidant and fearful avoidant) that they suggest maps broadly onto the circumplex. In considering the two axes of the interpersonal circumplex (hostile-friendly and dominant-submissive) they argue for an interactional model of relating in which behaviours between people affect and are affected by one another, potentially eliciting complementary behaviours. One example they give is of a depressed person who is somewhat submissive and helpless, inviting a more dominating response. This appears to be an attempt to introduce a more complex way of understanding interpersonal relationships and difficulties than that which can be achieved by a simple self report measure. However, it does not really achieve its aim of adding depth to the model. For example, it could not account for the passive aggression that may be enacted by some depressed people. In their preliminary work, people with a dismissive attachment style were found to exhibit more problems of hostile dominance (see also Horowitz, 1996)). As stated above these are in the areas of the Circumplex that appear to be less amenable to change in psychotherapy. This literature attempts to bring together two clearly related and important areas (interpersonal functioning and attachment capacity) but without a clear rationale for the relationships that may be expected. There is clearly more work to be done in these areas.

Personality structure

An approach trying to link IIP data with personality scales has also been developed, with a number of authors attempting to extend the use of these data by applying theory from personality traits (Gurtman, 1995) and personality disorder (Pilkonis et al., 1996), (Alden, 1993), (Pincus, 1995), (Wiggins, 1997). For example, according to (Kim et al., 1997; Kim et al., 1999; Pilkonis et al., 1996) specific items on the IIP can be associated with personality disorders and it has also been suggested (Pilkonis et al., 1996; Stern et al., 2000) that these may usefully discriminate patients with Axis II personality disorders and provide a prospective screening instrument. Whilst it is clearly important to try to rationalise measures to ensure greater efficiency and less stress for patients, there may be a risk in some of these arguments. The particular danger is of assuming that undeniable overlap between certain areas (for example, interpersonal capacity and personality functioning or interpersonal capacity and attachment classification) amounts to equivalence rather than association.

Mentally Disordered Offenders

Despite these challenges and the uncertainties about factor structure described above, the IIP is increasingly used as the interpersonal outcome measure of choice by psychotherapy researchers. Mentally Disordered Offenders (MDOs) are known to experience high levels of interpersonal difficulty but are also often found clinically to show poor appraisal of their problems. The aim was to explore these issues for this MDO population through comparisons against reported scores in the literature..

A: External comparisons: The general null hypothesis of no differences from clinical samples in the literature is tested with the directional alternative hypothesis that the whole group will score *lower* than referential data in the literature for other clinical samples. This will be more marked for the group of violent offenders.

Scores from the study samples are also compared with the relatively few mean scores for non-clinical samples found in the IIP literature. The null hypothesis tested was of no difference.

B: Internal comparisons: Given the many ways of scoring the IIP, the general null hypothesis was adopted that there will be no difference between the groups on any scores. As it is unclear, *a priori*, how diagnostic group would affect scoring it is predicted that that there will be a relationship with offence type such that violent offenders will score lower on the IIP than sexual offenders.

Results

The IIP ratings were examined using the following rating scales: Horowitz, (1988) Barkham et al., (1994; Barkham, Hardy, & Startup, (1996); Soldz, (1995); (Savournin 1995); Pilkonis et al., (1996) Riding et al., (1999a). Descriptions of these scales can be found in Appendix 13.

Internal reliability

Before exploring the mean scores on the different scoring systems it is necessary to explore whether the IIP, when used in this sample of MDOs, shows internal reliability sufficient to justify use of the scores. Internal reliability was examined using Cronbach's coefficient alpha Cronbach, (1951). Internal reliability checks for covariance across items, across participants. That is, whether people scoring higher on one item tend to score higher on specific other items or whether people scoring lower on certain items, tend to score lower on specific others. The existence of such covariance supports the idea that there are one or more underlying dimensions in a scale that tap a common source of difference between respondents. High internal reliability means that a measure has more statistical power to be able to identify differences between groups where they exist, or to establish whether correlations exist with other measures. The internal reliabilities for the overall measure and for the different subscales are presented in Table 78 below. Alpha values below 0.7 are marked by shading. The corrected item-total correlations (CITC) are also presented in this table. This score is the Pearson correlation coefficient for the correlation between that item and the sum of the other items in the scale. This identifies the 'fit' of items in a scale. Low CITC scores generally mean that an item is not demonstrating a likely relationship with other items in the scale in the sample. The

reported correlations here are for the item with the lowest CITC for that scale in this sample. Such items may be misplaced in that scale and raise questions about the inclusion of that particular item in a sub-scale at least for the population sampled. Items with correlations of below 0.4 should certainly be considered for review. Their relevance here, is that they may indicate that a particular item does not appear to be responding as other items in the scale *in this sample*, and this may indicate that the scale structure that seemed appropriate to describe interpersonal differences in other populations, may not be the best one for mentally disordered offenders. The distribution of the scores across the entire sample was checked for statistically significant deviation from Gaussian distribution using the Kolmogorov-Smirnoff test. None of the distributions differed significantly from Gaussian. Although some of the subscales retain high internal reliability, there are a number of subscales where this is not established with this population.

External comparisons: Clinical groups

With regard to the external comparisons, the predictions made were that the whole group will score lower than referential data in the literature for other clinical samples on total score and that this would be more marked for the group of violent offenders.

The sheer number of potential subscale comparisons and the number of referential groups reported in relation to those in the literature means that examining differences on individual subscales with specified populations leads to an enormous number of comparisons. Comparisons with reported clinical data from the various key scoring systems leads to 80 comparisons with referential scores. These were examined in relation to the total group of mentally disordered offenders and then against each individual sub-group (PD:violent, PD:sexual, SMI:violent and SMI:sexual) yielding 400 contrasts. Rather than examining these individually, these were pooled. Of the 400 contrasts, 119 are found to be different from the referential data at the usual level of statistical significance ($p<.05$)[5] and 281 are found not to be statistically significant. The detailed breakdown is presented in Table 77, below.

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[5] In this context, for exploratory purposes, 'significantly' is used in the sense that if each comparison were made separately and in its own right (as opposed to one of multiple comparisons) the probablility of this result would be $p<.05$

This table shows that of the 80 contrasts of the whole group, 33 (41.3%) were significantly different from the referential clinical means. Of these 33, only 7 (8.8%) come out significantly *higher* overall, with 26 (32.5%) being significantly *lower* than referential clinical means in the literature. This appears to support the prediction that the sample of mentally disordered offenders would score lower than clinical groups in the literature.

Table 77 External comparison of IIP scores with referential clinical scores

Comparison group	NS		Significantly lower		Significantly higher	
	N	%	N	%	N	%
All 53	47	58.8%	26	32.5%	7	8.8%
MI:sex	68	85.0%	10	12.5%	2	2.5%
MI:violence	45	56.3%	33	41.3%	2	2.5%
PD:sex	68	85.0%	0	0.0%	12	15.0%
PD:violence	53	66.3%	24	30.0%	3	3.8%
MI	113	70.6%	43	26.9%	4	2.5%
PD	121	75.6%	24	15.0%	15	9.4%
Sex	136	85.0%	10	6.3%	14	8.8%
Violence	98	61.3%	57	35.6%	5	3.1%

There is also support for the prediction that scores would be lower the groups with violent index offences whether through defensive self-appraisal, faking good or core deficits in understanding interpersonal relatedness. For violent offenders 38.7% of the 160 comparisons (80 for the SMI:violent, 80 for the PD:violent) were significantly different from the referential clinical means (with only 3.1% of these being higher and 35.6% lower), compared with 15% of the 160 comparisons for sexual offenders.

Table 78. Internal reliability data and CITC correlations.

Scale	N(item)	N(resp.)	alpha	CI(alpha)	Lowest CITCorr.	Item with lowest CITCorr
Total	127	29	.97	.95 to .98	.03	66
Barkham et al.(1994) from IIP127						
H_assert	24	46	.92	.88 to .95	.24	43
H_sociab	16	46	.93	.90 to .96	.47	99
H_suppor	11	46	.88	.82 to .93	.41	19
T_caring	10	45	.85	.78 to .91	.34	104
T_depend	14	46	.90	.84 to .93	.43	76
T_aggress	7	48	.75	.63 to .85	-.29	68[¶6]
H_involv	7	49	.82	.74 to .89	.34	56
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Barkham et al. (1996) IIP32						
Total	32	41	.89	.83 to .93	-.32	113[¶]
H_sociab	4	48	.82	.71 to .89	.51	3
H_assert	4	50	.81	.70 to .88	.58	9
T_aggress	4	49	.81	.71 to .89	.56	82
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
H_suppor	4	48	.78	.66 to .87	.49	64
H_involv	4	50	.81	.71 to .89	.38	75
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Soldz et al (1995)						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
DE	4	50	.86	.78 to .91	.48	118
FG	4	49	.82	.72 to .89	.51	3
HI	4	50	.80	.70 to .88	.56	9
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
LM	4	48	.80	.69 to .88	.40	73
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Riding & Cartwright (1999)						
LN	5	49	.83	.74 to .90	.56	9
LC	5	49	.83	.74 to .89	.56	114
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
UN	5	48	.74	.61 to .84	.45	111
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ND	5	48	.88	.82 to .93	.62	10
LD	5	48	.77	.65 to .86	.34	92
Pilkonis et al (1997)						
PD1	11	48	.81	.72 to .88	.30	1
PD2	10	47	.84	.76 to .90	.26	123
PD3	7	48	.87	.80 to .92	.50	127
C1	9	48	.82	.73 to .89	.33	2
C2	10	48	.89	.83 to .93	.50	51
Horowitz et al (1988)						
Ho_Assert	21	47	.92	.88 to .95	.39	74
Ho_Sociab	18	45	.92	.88 to .95	.33	1
Ho_Submi	10	49	.80	.71 to .88	.25	28
Ho_Intimac	12	42	.87	.81 to .92	.28	12
Ho_Respon	12	46	.88	.82 to .93	.38	81
Ho_Control	10	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[6] ¶Item which is reverse scored according to the scoring system for that scale. A negative CITC shows that the item would have been better left in its original scoring direction in the full IIP, not reverse scored.

However, closer inspection of the sexual offenders reveals that the PD:sexual group appear to be responding differently from the other groups. All the comparisons with the referential clinical means show that when the PD:sexual group score significantly differently from the clinical groups, it is in the direction of higher scores. The sub-scales that feature in this are 'hard to be sociable', 'hard to be supportive', 'socially avoidant', 'hard to be intimate', 'hard to be submissive', 'too open', 'lack of sociability' and 'interpersonal ambivalence'.

External comparisons: Non-clinical groups

There are far fewer findings reported for non-clinical populations in the published IIP literature than for clinical populations. The original paper (Horowitz, 1988) does not cite data from a control group. Comparisons were identified for 3 non-clinical groups on two of the various key scoring systems (Barkham et al., 1996; Pilkonis et al., 1996), leading to 19 comparisons. These 19 referential comparisons were examined in relation to the total group of mentally disordered offenders and then against each individual sub-group (PD:violent, PD:sexual, SMI:violent and SMI:sexual) yielding a total of 95 contrasts. As with the clinical referential samples, rather than examining these individually, these are pooled. Of the 96 contrasts, 56 are 'significantly' different from the referential data and 39 are 'non-significant'. All differences are in the direction of the MDO sample scoring higher than the non-clinical comparison groups and there is a trend for this to be higher for PD and sexual offenders. The detailed breakdown is presented in Table 79 below.

Differences were found for most of the subscales and so it would not be appropriate to draw strong conclusions. However, no differences were found on the subscale 'too dependent' for the SMI group, the PD group or the sexual offending group. The violent group appear to have slightly more specific differences, scoring higher than the referential groups on the Barkham et al (1996) scales 'hard to be involved', 'too open' and 'hard to be supportive' and all the Pilkonis subscales apart from C1 – 'interpersonal sensitivity' where no difference was found. The full table of comparisons with the referential groups in the literature, including clinical groups and non clinical groups can be found in Appendix 14 and 15.

Table 79 External comparison of IIP scores with referential non-clinical scores

Comparison group	NS		Significantly higher	
	N	%	N	%
All 53	6	31.6%	13	68.4%
MI:sex	7	36.8%	12	63.2%
MI:violence	12	63.2%	7	36.8%
PD:sex	4	21.1%	15	78.9%
PD:violence	10	52.6%	9	47.4%
MI	19	50.0%	19	50.0%
PD	14	36.8%	24	63.2%
Sex	11	28.9%	27	71.1%
Violence	22	57.9%	16	42.1%

Internal comparisons

The statistically significant results of internal comparison between the groups on total and subscale scores for the various IIP scoring scales are presented in Table 80 below. The table sets out the significant results of two-way, between subjects ANOVA's that were carried out to look for any statistical differences in mean scores on the scales. A number of significant differences by offence type or by diagnosis were found and one interaction.

The main prediction that violent offenders would score lower than sexual offenders on total IIP scores was not found ($p=0.11$). With regard to the results on internal comparisons of subscale scores, it is important to note that these are largely exploratory analyses and although a certain number of significant findings may be expected by chance alone, it is recognised that the subscales are not likely to be independent of one another and so simple adjustment of p values to minimise the number of chance findings is not appropriate here.

Those subscales that did reveal an apparent statistically 'significant' difference by offence type were primarily related to difficulties with assertion. Sexual offenders reported more difficulties with assertion than violent offenders. The scales included: Barkham et al's "hard to be assertive" subscale on both the full IIP and also the IIP32 short version; Horowitz' assertiveness subscale; the Soldz "HI" scale which is also called "non-

assertion"; and the Riding and Cartwright "lower-neutral" scale. It would appear therefore that sex offenders do not respond defensively in relation to difficulties in this area, however, this interpretation would need to be confirmed and may be a potentially useful basis for a future study. Graphical representations of these can be found in Figure 37, below and Figure 38, below.

The subscales that did reveal an apparent statistically significant difference by diagnosis were primarily related to difficulties in sociability, with the PD group reporting more problems in sociability: Horowitz's sociability scale; Barkham et al's "hard to be sociable" and Pilkonis's C2 scale, subtitled "lack of sociability". In addition, a difference was found for the Barkham scale "too open" in the direction of the SMI group reporting higher scores. Graphical representation of this can be found in Figure 39 below and Figure 40 below. The one interaction that was found related to the Soldz sub-scale "NO", also called "intrusiveness". On this scale, the PD:violent group reported far fewer difficulties with intrusiveness than the other groups. Figure 41 below and Figure 42 below present these results in graphical form.

Table 80 Significant internal comparisons on subscale scores

Subscale	P(interaction)	P(offence)	P(diagnosis)
I32 NO	**0.038**	0.065	0.44
H_Assert	0.51	**0.0094**	0.59
IIP LN	0.55	**0.011**	0.32
B32 H. Ass	0.4	**0.011**	0.81
I32HI	0.3	**0.019**	0.36
Ho.Asser	0.64	**0.021**	0.93
T_Open	0.24	0.22	**0.039**
Ho.Sociab	0.65	0.41	**0.012**
H_Sociab	0.5	0.6	**0.027**
PI.C2	0.3	0.6	**0.05**

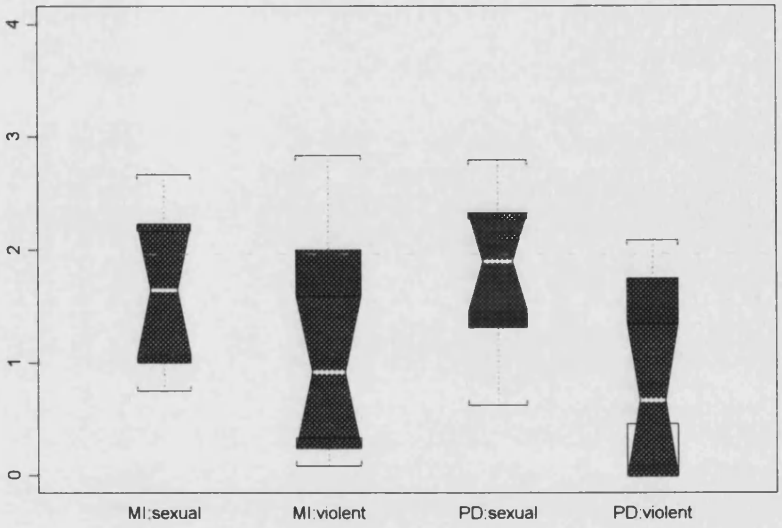

Figure 37 Boxplot of Hard to Assertive subscale against diagnosis and offence type

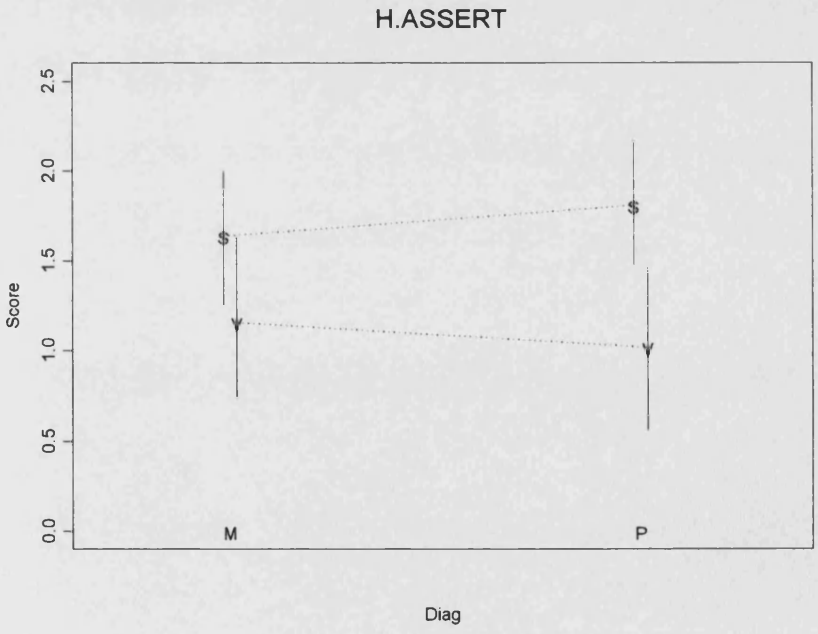

Figure 38 Interactogram of Hard to be Assertive scale by diagnosis and offence type

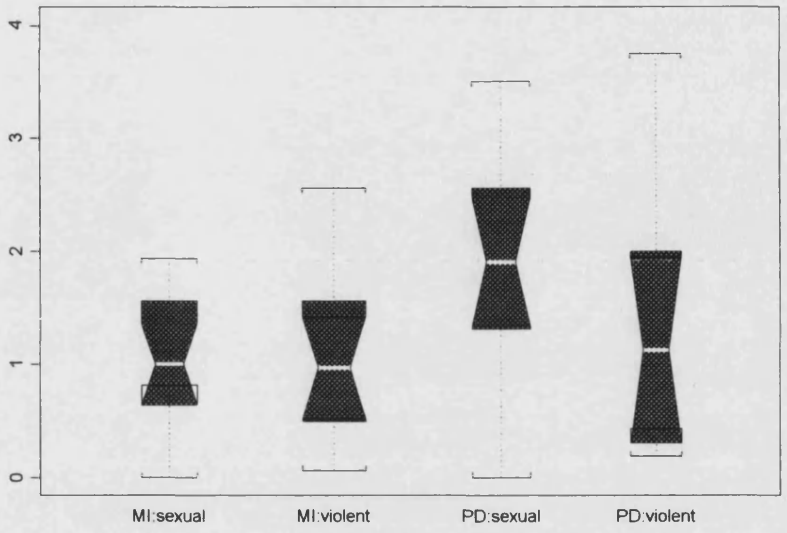

Figure 39 Box plot of Hard to be Sociable scale against diag. and offence type

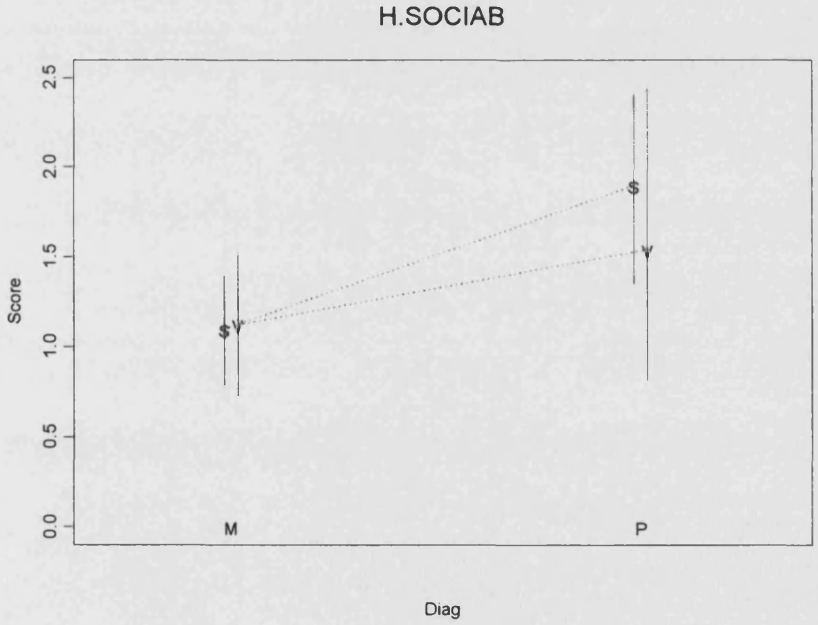

Figure 40 Interactogram of differences on Hard to be Sociable subscale by diagnosis and offence type

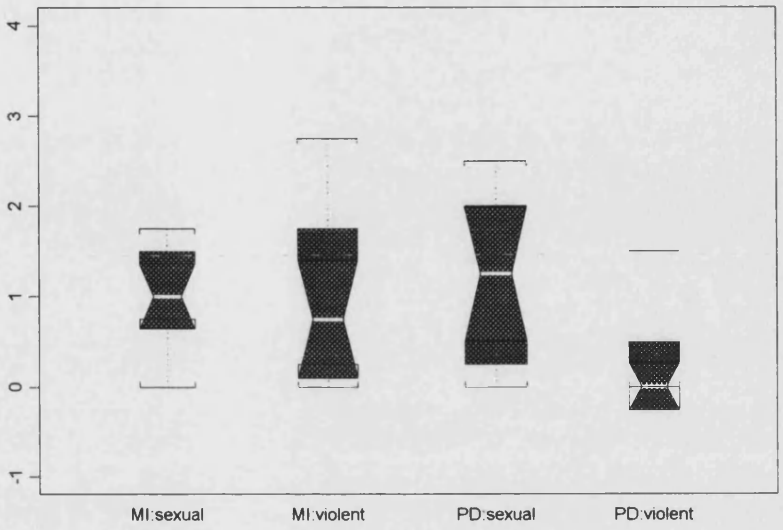

Figure 41 Box plot of interaction of diag. and offence type on NO subscale (intrusiveness)

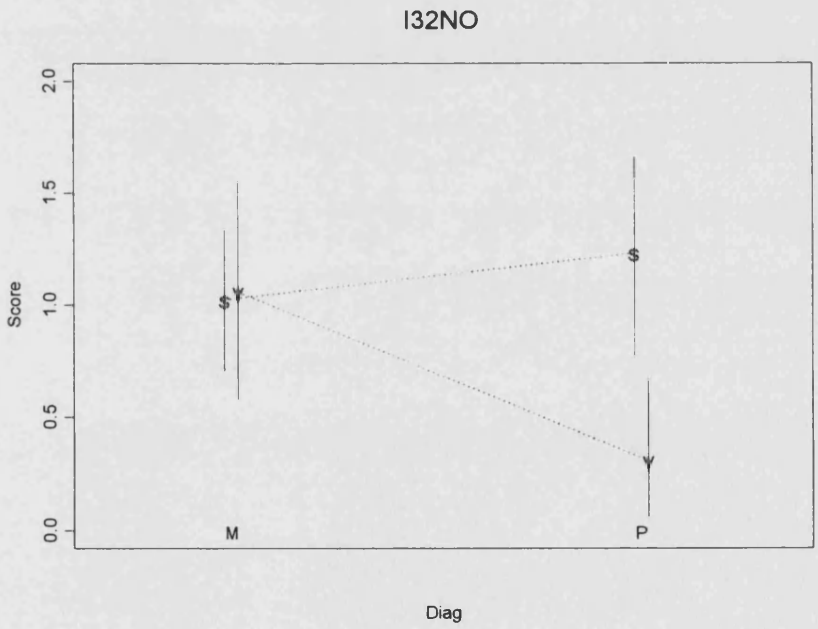

Figure 42 Interactogram of interaction of diag. and offence type on NO subscale (intrusiveness)

Discussion of results

External comparisons:

The results for comparison with referential clinical and non-clinical groups largely support the predictions of the MDOs scoring lower in general and for violent offenders in particular, possibly revealing a somewhat defensive or un-insightful responding pattern. However, it also appears that sexual offenders have a different response pattern from the other subgroups, when compared with clinical referential data. Unlike the other subgroups, the sexual offenders report more problems and these are in the areas of "hard to be sociable", "hard to be supportive", "socially avoidant", "hard to be intimate", "hard to be submissive", "too open", "lack of sociability" and "interpersonal ambivalence".

When compared with non-clinical referential groups in the literature the sample of MDOs tend to score higher on a number of subscales though not on overall scores.

Internal comparisons:

The most compelling results appear to be the greater difficulty for sexual offenders to assert themselves when compared to violent offenders and the difficulty with sociability for people with personality disorder. Neither of these results is surprising in clinical terms and it may be that they add some small weight to the widespread use of assertiveness training for sexual offenders in treatment programmes. Some theoretical understandings of the motivation for some sexual offending with both adults and children argues that the offending is a consequence of the individual's difficulties making appropriate approaches to suitable partners. It is thought that many sexual offenders overcome these limitations by selecting non-threatening partners (children, people with learning difficulties and other vulnerable groups) or by using force (particularly in the case of rapists). However, it is also possible that the likely participation of the sexual offenders in assertiveness and social skills programmes may have made them more sensitive to their difficulties, or even simply, better primed to report difficulties, when responding to questions in this area.

With regard to sociability, it is widely recognised clinically that people with personality disorders have difficulties getting on with others. In this study, the PD group scored higher

on the PCL-R than the SMI group, suggesting a higher tendency towards psychopathy, which also suggests difficulty in social relationships. These findings on the IIP are coherent with these observations.

Finally, with regard to the interaction found on the Soldz sub-scale "NO/ intrusiveness", here it appears that the PD:violent group report far fewer difficulties with intrusiveness than the other groups. When the items for this scale are examined, they appear to fit more of a 'restrictiveness' scale (the items are: *"it is hard for me to keep things private from other people"; "I open up to people too much"; "I want to be noticed too much"; "I tell personal things to other people too much"*). In fact, it might be suggest that there are two ways of interpreting the items. The first might be deemed more 'paranoid' and the second, 'less insightful'.

For example, the first might demonstrate a more defiant and dismissive attitude, perhaps also described as 'hard, macho'. The item "I open up to people to much" might be understood in two different ways, one is: *"No, I don't open up to people too much, I don't open up to them at all"*, another is: "it is hard to keep things private from other people" might be understood as *"no it is not hard to keep things from other people, I just don't tell them anything about me"*. This latter has a more paranoid edge to it than the former.

The second 'less insightful'attitude might be characterised by people who believe (consciously) that they do not have problems in relationships with others and that they do not have difficulties opening up. This might be felt to be different from the view of an observer or partner - a more 'typically masculine' attitude.

It could also be argued that both of these attitudes might be associated with low RF. For example, the internal capacity for reflexive thinking is very limited both when, the person feels that they have revealed more than they want about themselves (which might well not be the case in many people's eyes) or when others have demanded too much from them, (in which case there is a stronger feeling of intrusiveness that is reacted against violently). If these assumptions are correct then a significant result for the octant in Birtchnell's scheme that maps onto this area might have been expected. In fact, although in spatial

terms Soldz's "NO" should map for Birtchnell's "upper close" (UC), the four Soldz items for "NO" were found amongst the items for "neutral close" (NC). NC did in fact approach significance for offence and also an interaction ($p=.056$ for offence, $p=.074$ for an interaction). In some ways, this finding might be an interesting inversed predictive capability in the IIP. I.e. that non-reporting on these items would indicate the potential for violence in some people. If this were replicated in other samples, it would be interesting more generically, indicating limitations of self report measures as their focus on the conscious realm can prevent them revealing important facets, issues and dynamics about people.

Chapter 10. Discussion

This study has revealed some interesting findings about the attachment and interpersonal experiences of a group of mentally disordered offenders who have committed serious sexual or violent interpersonal crimes. In so doing it provides an important building block in our developing understanding of the influence of early interpersonal experiences *as mentally represented by adults)* on adult functioning in populations who suffer severe psychopathology. In particular, the use of measures from different traditions including the attachment, object relations and interpersonal theories has provided different perspectives on the responses and functioning of a group of mentally disordered offenders in their likely relationships with others. This use of multiple levels of measurement in different domains of relational experience has gone some way to answering the calls for more integration of methods and theoretical approaches in the areas of attachment, object relations and interpersonal problems (Osofsky, 1995) (Levy & Blatt, 1999) and to address Rutter's criticism (Rutter, 1997b) that attachment theory and the AAI seem at times to have been overstretched as an explanatory frame and an empirical lens onto that frame. Strengths of the study also lie in the fact it is set within a theoretically structured set of hypotheses. In addition ratings for the AAI and RF were blind and all data were double entered.

Methodological criticisms

Representativeness and sources of bias

Despite the gains from the multi theoretical and multi level approach to this study, there are also limitations in the study design. As described in Chapter 4, there are limitations regarding generalisability. This is true at a number of levels. There are questions about generalising to offenders whose offences were less severe or who for other reasons are currently in lower levels of security or the community. There are questions about generalising to offenders who have committed similar offences but received purely custodial rather than mental health disposals. The numbers of refusers and people excluded from the final analyses also raise some questions about whether the results can generalise to the male Special Hospital violent offender population.

There is insufficient evidence presented in the literature to be able to say unequivocally whether the group of MDO's who commit violent interpersonal offences are different in prison than in Special Hospitals. However, the fact that 'disposal' is often determined by political and administrative pressures, rather than therapeutic or theoretical concerns, suggests that some scope for generalisability is likely. This could not be said to extend to MDO's who do not commit violent interpersonal offences or to people in prison who do commit violent interpersonal offences but who do not have a concomitant Mental Disorder.

With regard to the question of whether the results in each group generalise back to their local 'parent' populations (because of the low overall inclusion rate), there was a strong trend for fewer PD patients to be excluded from the final analyses than SMI patients. This did not reach significance though it may mean that the two different diagnostic groups are not equally representative of their 'parent' populations within Special Hospital.

The way in which the study was conducted means that there was insufficient demographic data for the excluded group to establish whether consistent biases were operating between those people who were included in the final analyses and those who were not. This could have also been partially addressed by comparing the demographic information on the participants with known information about the male Special Hospital population as a whole but little good information on that parent population appears to be available. In retrospect it would have been better to have instituted several levels of participation to gain more information on possible selection biases or factors effecting non-participation.

Similarly, it is not clear whether the results concerning differences between the groups under study for IQ and PCL-R scores are biases or findings. The lower IQ scores for SMI offenders and the higher Factor 1 PCL-R scores for sexual offenders are open to vatious interpretations. . For example, with regard to IQ it is often argued that there are small but definite cognitive deficits with relapsing psychotic disorders (which might contribute to the IQ difference found). However the relatively high IQ scores (though not statistically significant) for the violent PD group versus three other groups are interesting and might bear further investigation in another study.

Interpretation of findings - multiple measures and equivocal results

The problem of any quasi-experimental study is that finding a large or a significant difference between the design groups on a variable other than the dependent variable of interest always raises questions about whether findings of an effect in the intended design (or indeed failure to find a significant effect) arises because of such confounding. Clearly it could be that IQ or PCL-R scores might be associated with AAI, repertory grid or IIP scores. For example, the development of personality disorder subscales derived from the IIP means that there is some reason to argue that PCL-R scores *ought* to show some association with at least IIP scores. However, without any experimental control there are no definitive ways to untangle these possibilities. For this study it did not seem statistically advisable to conduct ANCOVA analyses or make other attempts to try and estimate the strengths of confounding since the small sample size in the groups would leave such analyses with very little statistical power at all.

With regard to the findings on the chosen measures, it is of note that the group of sexual offenders was very weighted towards offenders against adults. As there was some suggestion in the literature that this group is somewhat closer to the violent group than are sexual offenders against children, the relatively small number of offenders against children did not give the best opportunity to examine the role of the pre-occupied/entangled AAI classification in that group of sexual offenders. Further work with sexual offenders should ensure that these groups are either dealt with separately or are more evenly represented in the group under study.

All inferential designs must address both type I (false positive) and type II (false negative) errors. Because of the labour intensive nature of the measures chosen, the sample size in the study is small and the chance of type II errors is high, i.e. the statistical power to detect all but very large effects is small. Most results are presented with confidence intervals which provides a clear indication of how confident one can be in using the sample under study to estimate populations effects. In this study a number of the effects found, even some of those which were not statistically significant, show large upper limits on the confidence intervals and there is a real need for similar work on larger samples as it appears that there *may* be a

number of moderate population effects which may not have shown as statistically significant in this study.

The opposite problem, of false positive findings is exacerbated by conducting a number of different tests. This is inevitably one of the costs of a multiple measure, multi-theory approach to any area of interest. In addition, some of the measures (for example, the repertory grid) intrinsically contain a large number of scores that can be derived from them. Other measures (for example, the IIP) have different scoring systems and even the AAI's apparent simplicity actually hides a large number of ways of categorising its data that have been used in the literature. Finally, the decision to compare the findings of the IIP and AAI from this study against referential data from the literature, created a further proliferation of tests.

In this situation corrections such as the Bonferroni correction, which trade off the increasing type I error rate by setting a lower initial testwise alpha (criterion of significance) would be theoretically dubious since the correction is based on the assumption that the tests are statistically independent which is not the case here. Additionally it would radically reduce the power of the study design. Less costly ways of controlling for multiple test related increase in type I error, such as using MANOVA rather than separate ANOVAs were also rejected on grounds of sample size and likely problems with the assumptions underpinning the MANOVA model. In summary, a study such as this is very likely to include some type I errors but it does give the literature clear indications of the estimated population effects and hence focused replication and extension work can now be based on statistical power estimates using the results from this study.

One of the difficult things in interpreting this PhD that the number of unequivocal findings were relatively few (some negative findings are considered below). The fact that a number of findings in this study are in the predicted direction but do not achieve statistical significance clearly points to the fact that the study is likely to have been under-powered. Although this is the largest group of interpersonally violent mentally disordered offenders who have been studied using the AAI, the actual numbers are relatively small for a comparative study. The resource costs of the AAI, both in financial terms and also in the

number of hours required to transcribe and rate the interviews does raise serious questions about how viable it will be to use this instrument in larger scale studies. There have been moves to find alternative but robust ways of measuring AAI data that are less costly and future studies may benefit from such developments.

Discussion of findings

The results from the Adult Attachment Interview illustrate clearly the severity of the disturbance of attachment functioning in this group of mentally disordered offenders. It is helpful that this could be compared against an accumulated body of studies estimating the proportions of different AAI categories in a range of 'normal' and 'psychopathological' populations. Comparing the results from this group of MDOs with a range of data from this non-clinical and clinical comparative literature meant that is was possible to comment more meaningfully on the findings of this study. For example, part of the evidence for the high levels of "disorientation" in the sample under study was the higher proportion of insecure ratings for the MDOs when compared with non-clinical referential data. Perhaps more important than the findings about proportions of insecure transcripts are the findings concerning the much higher proportion of CC/U ratings in the group under study than in non-clinical samples in the literature. It is likely that fuller and more comprehensive understandings of the nature and form of the "disorientation" that is associated with each of the U and CC classifications will be fruitful in delineating the difficulties that clinical groups experience.

The comparisons of this group of mentally disordered offenders with other clinical samples from the literature was somewhat more complex to interpret, but tended to show fewer F and E classifications in this group than the other clinical groups. This was not the case with a particular clinical comparison group, people with schizophrenia, who tended to have a higher proportion of D classifications and fewer U and CC classifications. It is unfortunate that the raw scores of U and CC classifications were not given separately in the meta-analysis of findings with the AAI, as it was not possible to examine the impact of unresolved ratings without the influence of the CC group. Although the relatively low number of CC transcripts in many populations makes the analysis of these transcripts difficult, the prevalence of

unresolved transcripts should not be confused by the addition of CC transcripts until more is known about the similarities and differences of these two groups and the types of "disorganised" or "disorientated" functioning they represent.

Although they should be treated tentatively because inter-rater reliability scores have not been reported, it does appear that examination of subscale scores on the AAI yields useful information. The differences that emerge when comparisons were made with non-clinical groups are not surprising and are in accord with the literature which reports the relationship of problematic parenting with later pathology. In this context, findings of no difference with non-clinical samples can be as interesting as findings of difference. For example, one of the few scales where no effect was found between the groups was for 'involving anger'. Considering the real experience of abuse and neglect that many of the participants in this sample had experienced, it might have been expected that participants would have been angry and pre-occupied with their parents. The fact that this is not the case may mean that this E-type pre-occupation with relationships is not one of the strategies that mentally disordered offenders use in their responses to experiences of problematic parenting. Fonagy & Target, (2002b) describe E functioning as offering "self protection by amplifying the other" and perhaps it is this that differentiates MDOs who have committed violent interpersonal offences from some other groups.

The differences that emerge in relation to clinical samples are also of interest. In particular, MDOs are found to have higher scores on 'neglect' and lower scores for 'coherence of mind and transcript' despite the already compromised scores that many clinical groups reveal on these subscales. The specific association between neglect and low coherence must be the subject of future work. However, it is clear that infants and children must at least have access to an attachment figure in order to experience the essential behavioural investments of attention, interest, care, and other fundamental experiences that lay the foundations for object relating, empathic understanding and for the capacity of 'mentalising'.

The pattern of differences in the subscales is interesting. As well as the scores for neglect and coherence, the mentally disordered offenders were found to score higher for idealisation than many other clinical groups, and to have a trend in this direction for derogation (at the level of

p=.07 and so does not reach statistical significance). In accord with findings for the non-clinical group, the MDOs also scored *lower* for 'involving anger' than the clinical comparison. If the assumption is made that reports on the AAI reflect current strategies of defensive (or protective) behaviour in relation to interpersonal relationships, these results suggest that in the face of adverse parenting (particularly neglect and rejection) and substantial experiences of separation and abuse, these MDOs employ strategies associated with dismissive states of mind rather than of actively involved anger or confusion (which are E type responses). Fonagy et al., (2002) suggest that a Dismissive style of attachment protects the self by isolating it from other people, particularly key attachment and intimate relationships. It could be said that 'idealisation' protects the self by isolating the self from knowledge about the reality of deprivation and an inadequate experience in relationships, whereas with a more derogating state of mind, it is not the knowledge of deprivation that is defended against *per se*, but the reality of its impact on the person themselves. To be more aware of these deprivations would presumably lead to depression rather than denial and acting out.

These findings lead into understanding the higher proportion of D than E transcripts found in the group as a whole and into the 'internal' comparisons within the four samples in the two-by-two central design of the study. When findings on the subscales are examined, idealisation scores are higher for the SMI group compared with the PD group; and for the sexual offenders compared with the violent group. There was also a strong trend (p=.053) for the PD group to be more derogating. The type of D functioning (whether of an idealising kind or alternatively a more derogating type) may have implications for treatment and might be the subject of future research.

In a similar way, the association of E classification with subgroups throws more light on this category. As predicted a somewhat higher proportion of sexual than violent offenders were rated as E. Interestingly, the remaining E transcripts are made up of two sub groups within the larger sample; people who killed their parents (four of the five in this sample) and the small sub-group of patients (three in this sample) whose violent offences were solely against other patients or staff whilst in health or social service care.

The findings described above are supported by the results from the other measures. As predicted, Reflective Function scores for the mentally disordered offenders are extremely low, particularly for the SMI group, and significantly lower than those found in the literature for both non-clinical and other clinical samples. The fact that the scores are found to be significantly lower than other clinical samples is interesting in as much as it reveals the enormous deficit in the capacity for "mentalising" in this population. This has been anticipated in the work of Fonagy and colleagues discussed above, but this study has now provided real evidence for this with a group of greater size. As with low coherence on the AAI ratings, it could also be argued that neglect may have an important and possibly mediating relationship with low RF and this could be the subject of future work.

The Dyad Repertory Grid also revealed interesting differences on the contrasts for the two-by-two design. These were particularly strong for diagnostic group, and particularly there for the rated relationship with father. The PD group reported experience of greater 'rejection' and 'neglect' both in their feelings to their father and their father's feelings towards them than the SMI group. Perhaps as a corollary to this, the SMI group reported more 'loving' feelings both to and from father than the PD group and also reported that they experienced their father as being more 'understanding', 'protecting' and 'controlling' to them than the PD group reported.

The Repertory Grid was the only measure used that specifically asked about the relationship with the victim of their index offence. There were more missing ratings for the relationship with the victim than for the other relational objects (mother, father, partner, friend, therapist). This is understandable given that a number of the participant group offended against a victim unknown to them and, outside the non-stressful context of the actual assault, it is likely that many of the participants could recognise that they did not 'know' and were not 'known' by the victim. It is interesting that, as predicted, there was a greater degree of "restricted" responding in relation to the participants' view of their victim (when compared with a friend) and this was more marked for the violent group. It would be interesting in the future to examine whether this "restricted" responding in relation to the victim is associated with a more dismissive style of attachment as an argument could be made that idealisation masks

difference by inhibiting awareness of difficulties in relationships, whereas derogation accentuates it, inhibiting awareness of the complexities of relationships.

Finally with regard to findings using the Inventory of Interpersonal Problems, there did appear to be some support for the prediction that a more defensive scoring pattern of this group of mentally disordered offenders (who are known to have substantial difficulties in interpersonal relationships) would be revealed by lower scores on the IIP when compared with referential clinical populations in the literature. However, it appeared that the PD:sexual group responded differently from the three other sub-groups and where differences did emerge from comparisons with the referential samples, the PD:sexual offenders reported more problems. Comparisons with non-clinical groups revealed that when significant differences did emerge, these were in the direction of the MDOs scoring higher than the comparison sample though there were a surprising number of scales on which this wasn't the case or where the differences were perhaps smaller than might be expected. The other findings of interest to emerge from the IIP related to comparison between the groups under study. Of the problems that were reported, it appeared that sexual offenders had difficulties in the area of assertion when compared to violent offenders and the participants in the PD group had difficulties with sociability when compared to the SMI group. Finally, the PD:violent group reported fewer difficulties with intrusion (for example, "it is hard for me to keep things private from other people"). However, as discussed in the IIP results chapter above, for several items the 'reason' for choosing a response to a particular item can be complex and may reveal something about a more restrictive or defensive style of responding. If this were replicated in other samples, (for example in a groups of people with schizophrenia, as this group appears to be more likely to be rated higher on D functioning) it might provide useful information about the limitations of self report measures with some groups. In particular it may be that the focus of self-report measures on the conscious realm may prevent them revealing important facets, issues and dynamics about people that are of central to the concept being investigated by the measure. For example, it is possible that low scores on the IIP are, in some groups, indicative of restrictiveness and defensiveness in interpersonal relations rather than indicating few problems in interpersonal relating.

Negative findings:

As well as the findings and trends that are in accord with predictions, there were a number of predictions which were clearly not supported. . The prediction that an impaired capacity to 'mentalise' likely to be seen in this sample would specifically result in a more polarised way of responding to parental figures (as measured by 'restriction') was not borne out.

With regard to the presence of a 'tightly organised construing system' the lack of systematic data reported in the literature for normal and other populations means it is not possible to make a formal *external comparison.* However the percentage variance in the first component is not particularly suggestive of a very tightly organised construing system and in terms of *internal comparisons* there is little evidence of differences between the groups. The prediction that the violent group would demonstrate a more tightly organised construing system is certainly not supported. The prediction that the violent group would score lower on the IIP (possibly demonstrating a somewhat un-insightful or defensive attitude) was not supported either.

These findings will now be considered in the context of future developments for work in this area.

Future developments

In recent years, there has been a move away from the simplistic notion that difficulties in early attachments have a direct and causal influence on later functioning. This has been replaced by increasing recognition that impacts of the early interpersonal environment and interactions are complicated and mediated by many factors, of which attachment is one. The development of measures to look at the types of attachment functioning and dysfunction is an important step forward as it provides an opportunity to examine the effects of attachment on specific outcomes, in childhood, adulthood and inter-generationally. In addition, the differentiation of different types of attachment also allows some more specific ways to understand the nature of specific attachment styles.

Interest in these developments has been very strong among clinicians working in the Mental Health field. Work with patients who have emotional and personality problems highlights the importance of early experience (both actual and perceived) in patients' understanding of their current difficulties. Patterns of repeated dysfunctional relationships are found not only in current social relationships of people with mental health problems, but also in their relationships with health and social care agencies, and these are often further enacted within any psychotherapeutic treatments offered (particularly transference focused treatments).

It had been thought that these specific attachment styles might provide an important route into understanding particular clinical disorders or clinical psychopathology and a number of studies have been carried out to look at this possibility, including this one. Although a few if any clinical groups seem to be associated with specific types of insecure functioning, it is clear that there is a link between attachment insecurity and mental health problems and that the factors involved with the type and form of attachment problems are complex and involved with, or mediated by, other factors. As well as the genetic and social factors that are reported in the literature, it is likely that capacity for Reflective Function or 'mentalising'; experience of 'disorientation' associated with response to trauma and early deprivation; and 'restrictiveness' in relating, also play important parts. This study provides some initial evidence for these relationships with mentally disordered offenders.

There are of course explanatory paradigms in which early experience and patterns of relating have very direct corollaries in adulthood. Where these are observable in particular clinical cases, they are both seductive and compelling. Haapasalo et al., (1999); Haapasalo, Puupponen, & Crittenden, (1999) offer an example of this within the model of traumatogenesis. In their 1999 paper they describe the case of a sexual offender who had a traumatic and abusive past, abused by his father and seemingly repeating similar patterns with his own victims. They argue for direct causal influences in behavioural patterns and clearly there are links. However, a number of factors are ignored in this approach. Firstly there are multiple influences including relational, genetic, social, economic and cognitive that impact on development (Fonagy et al., 2002a) (Rutter, 1997a). Secondly, such reports often appear to take recollection too much at face value. Many factors influence both the impact and recall of specific events and a person with limited capacity for 'mentalising' is unlikely to process

these multiple influences either as a child or an adult. Finally, this is a group in which poly-perversity is common. Just as an individual expands and develops their repertoire of intimate and relational activity with key others during their lives, particularly in key developmental phases, so such a process happens with MDOs and there is a danger that health and criminological systems expectations can selectively amplify certain memories and sideline others. It may be more fruitful to think in terms of the nature of violent action providing clues about the mechanisms by which a perversion or offending pattern 'mutates' rather than to look for single strongly explanatory models.

The factors described above support the need to complement retrospective accounts with research where reported/perceived experience can also be understood in relation to actual experience. It is recognised that this was not really possible in this study. However, it can be done when data from longitudinal studies can be examined in relation to current descriptions of experience. Roisman, Padron, Sroufe, & Egeland, (2002) have carried out just such an investigation in relation to people described as 'earned secure' in attachment terms. This group has been thought to be comprised of people who are often from high risk groups and report difficult or restricted early attachment relationships. When rated on the Adult Attachment Interview, they show evidence of an autonomous level of functioning and freedom to talk about attachment experiences without becoming dismissive or entangled in narrative. It had been assumed that this group were people who had acquired security later in life, hence the term 'earned secures'. Roisman et al., (2002) examined the actual histories of a group of 'earned secures' with reliable observational data from a longitudinal study and found that this group did not have adverse experiences of maternal care. In fact they had high maternal care. There is also some tentative support in the work presented in this thesis for the need for a closer examination of the separate influences of maternal and paternal care.

Another area for development concerns the disparity between the rich qualitative data that is revealed in the transcripts of AAI interviews and the relatively limited usage of the three way classification system that comes out it, even with the addition of the related 'U' and 'CC' examinations. Future work could use the transcripts to examine the specific groups using qualitative methodologies. One advantage of this would be the potential to compare findings

from such qualitative work with the more empirically driven and quantitative approaches of the current classification system.

Reading through the transcripts of the AAI's presented here, it is clear that there are subtle processes that go on that have an important impact on the individuals. For example, in a number of transcripts, fathers who were almost entirely neglectful and absent were not treated with any hurt or anger in the participants' accounts, whereas mothers who tried to cope with very difficult circumstances (albeit not always in the most satisfactory way, but without abandoning the child) were strongly denigrated. In other transcripts, inadequate mothering is idealised. The form of the idealisation that was found in the subscale analyses could also be examined in more depth. MDOs who have committed violent offences are likely to be somewhat unusual as a group when compared to many other clinical groups in that many of the participants have social and health service records dating back to childhood. This allows some corroboration between reported experience and evidence of actual experience.

One of the questions that remains for attachment research, is how to use the knowledge of a particular attachment classifications in clinical groups so it can actually inform clinical work. There is an important question as yet unanswered as to whether one or other attachment classification is more amenable to treatment. Hesse, (1996) and Fonagy et al., (1996) for example, have suggested that D cases may be more responsive to treatment. However, work by Dozier (Dozier, Lomax, Tyrell, & Lee, 2001) with a sample of patients with serious psychopathological disorders highlights the specific difficulties dismissive subjects may have in treatment in particular their potential to be rejecting to significant others and that these are not necessarily untreatable. This question of the implications of a more dismissive functioning on future ability to make use of treatment can also be considered in relation to findings on other interpersonal measures. For example, it has been suggested that people who score on the upper distant quadrant of the interpersonal circumplex or octagon (who tend to be more 'cold', 'socially avoidant', 'domineering' and 'competitive' are less amenable to change in psychotherapy (Alden et al., 1990) (Riding et al., 1999a). If future investigations revealed a relationship between this area of the interpersonal circumplex and 'D' classifications, then it would be possible to use multiple approaches to inform theoretical as well as empirical investigations in this area.

As well as the complexities of intervening in adulthood, there are a number of questions raised about the need for earlier intervention or prevention. The fact that more of the PD group in this sample had experience of institutional care and that the sexual offenders had a higher experience of sexual abuse is important. As (Fonagy et al., 2002a) point out, there are a number of factors that impinge on the child's internalisation of their experience. One such is the extent to which the child has the internal mechanisms to withstand pressures and trauma. They call this an individual interpretive mechanism that "evaluates the social environment which moderates the expression of the genotype". They point to three key factors that are present in this mechanism: stress regulation; attention regulation and mentalising function (related to reflective function). They argue for a two axis approach, with the dimensions "secure-fearful" and "preoccupied dismissive", seeing the former as differentiating clinical and problematic groups and the latter as describing the particular manner of self protection in interpersonal relations, which has within it a kind of distance control. This has links with the decision in this study to treat U and CC classifications as different to and not coextensive with the traditional 3-way classification system. It is an area that will need to be investigated further in other research.

Fonagy et al., 2002) discuss the importance of early intervention and this is supported by Svanberg, (1998) who also argues that early preventative work is important as it can provide support for the development of some of the social competencies that are integral to the work that Fonagy et al., (2002) describe in terms of opportunities for mediation of stress and attention regulation. It was this need for better understanding of the impact of early parental care, and in particular, the deprivation caused by inadequate parenting, neglect and abuse that was the starting point for this thesis. Linked to this is the key question of whether better understanding of the impact of inadequate parenting can lead to empirically driven early interventions that might reduce or ameliorate the factors that contribute to the development of mental health problems and to violent and abusive behaviour. Acts that are perpetrated by violent offenders are often horrific and sometimes chilling. However, the stories of the lives of some of the participants in this study revealed through the transcripts of the AAI are equally appalling. In their examination of the social and family histories of 16 men held on death row in the US for violent crimes, (Freedman et al., 2000) noted the repeated failure of

social and health care institutions to protect and support these men and to provide any consistency in response to their difficulties from a very early age. It is possible that the response of 'society' to the enormous problems experienced by the group that Freedman & Hemenway, (2000) describe and also by the group described in this study is constrained in itself by a genuine difficulty in facing the pain of the sheer repetitive and relentless horror of some people's lives.

In summary, this thesis has provided evidence about the complexity of factors that influence the attachment and interpersonal functioning of a group of violent MDOs. It has also illustrated the advantages of bringing together different perspectives on interpersonal relating by the use of measures that have their origins in different theoretical traditions. This approach allows investigation at levels of conscious awareness to be understood side by side with findings from process or unconscious domains of experience. Although this approach is complex, and at times the specific actions of variables cannot be disentangled from one another, this is likely to reflect the complex influences that contribute to the difficulties experienced within clinical groups in general, and with mentally disordered offenders in particular.

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Appendix 1. Dyad Repertory Grid

	1. You towards a friend	2. Your friend towards you	3. You towards you father	4. Your father towards you	5. You towards your mother	6. Your mother towards you	7. You towards your partner	8. Your partner towards you	9. You towards your victim	10. Your victim towards you	11. You towards your therapist	12. Your therapist towards you
A:Understanding												
B: Sexually attracted to												
C: Controlling												
D: Rejecting												
E: Loving												
F: Neglecting												
G: Sexually intimidating												
H: Protective												

Appendix 2. Case Note Reviews

DIAGNOSIS

Axis I

A. Schizophrenia

Schizo-affective Disorder (Bipolar or Depressive variant?)

Delusional Disorder

Drug induced Psychosis

B. Mood Disorder

Depressive disorder

Bipolar Disorder

C. Anxiety Disorder

D. Somatoform Disorder

E. Dissociative Disorder

F. Sexual and Gender Identity Disorder

G. Other (factitious; eating; sleep; impulse control not otherwise specified; adjustment; substance related; due to medical condition; delirium/dementia).

Axis II

Cluster A - Paranoid
Schizoid
Schizotypal

Cluster B - Antisocial
Borderline
Histrionic
Narcissistic

Cluster C - Avoidant
Dependent
Obsessive-Compulsive

Personality disorder not otherwise specified

Other (e.g. mental retardation)

Psychopathy (Hare-R)

Factor 1

1. Glibness/superficial charm [ ]
2. Grandiose sense of self worth [ ]
3. Pathological lying [ ]
4. Conning/manipulative [ ]
5. Lack of remorse or guilt [ ]
6. Shallow affect [ ]
7. Callous/lack of empathy [ ]
8. Failure to accept responsibility for actions [ ]

Factor 2

1. Need for stimulation/proneness to boredom [ ]
2. Parasitic lifestyle [ ]
3. Poor behavioural controls [ ]
4. Early behaviour problems [ ]
5. Lack of realistic long term goals [ ]
6. Impulsivity [ ]
7. Irresponsibility [ ]
8. Juvenile delinquency [ ]
9. Revocation of conditional release [ ]

Other items

1. Promiscuous sexual behaviour [ ]
2. Many short term marital relationships [ ]
3. Criminal versatility [ ]

INDEX OFFENCE CATEGORY (state detail at all times)

Violence

An offence against the person (E.g. ABH; GBH; Wounding with intent; Manslaughter; Murder; etc.) WITHOUT any apparent sexual motivation (note all).

Violence (ambiguous)

An offence against the person (E.g. ABH; GBH; Wounding with intent; Manslaughter; Murder; etc.) where it is unclear if there was sexual motivation. For example, victim was a prostitute, partner, etc. (note all).

Sexual

A clear sexual offence is reported as the index offence or was the clear motivating factor for the offence charged (note all).

- against adult women [ ]
- against adult men [ ]
- against girls [ ] age/s
- against boys [ ] age/s

Genetic familial/marital-partnership "familial"/stranger

(if familial, specify relationship to victim)

Sexual offending history

Although the index offence was not apparently sexual in motivation, there is a clear history of sexual offences (note all).

- against adult women
- against adult men
- against girls age/s
- against boys age/s

Genetic familial/marital-partnership "familial"/stranger

(if familial, specify relationship to victim)

Sexual (ambiguous, detail all)

1. A possible sexual element to the offence. E.g. partner, prostitute, sexual mutilation of the victim
2. Sexual motivation only suggested in clinical reports but not in the offence
3. Sexual problems reported, but no apparent sexual motivation to the offence
4. Other

Appendix 3. Funding and Grant Applications

A number of grant applications were made to obtain financial support for the project. Successful bids were made to the Special Hospital Services Authority (SHSA), the Higher Psychiatric Services Commissioning Board (HSPSCB), the HSPSCB Calman bursary scheme, the Culyer funds of the Adult Department, Tavistock and Portman NHS Trust and the fellowship awards scheme of the Tavistock Institute of Medical Psychology. Additionally support for the project was also given by the Developmental Psychopathology Research Unit at the Tavistock Clinic. Unsuccessful applications were made to the Lotteries Commission (refused because the body requesting funds did not meet full criteria for charitable status) and a second bid to the HSPSCB responsive funding round. The money from the successful applications was used in the following ways:

1. To employ an interviewer and research assistant on a sessional basis to interview patients and collect basic demographic data.
2. To pay for the author to attend the AAI raters training to ensure full familiarity with the methodology.
3. To pay secretarial costs for the transcribing of interviews.
4. To pay costs for independent raters for the AAI and RSF ratings.
5. To pay travel and conference costs for initial presentations at conferences and to liaise with other researchers in the field (Calman bursary).

Appendix 4. Adult Attachment Interview classifications and sub-classes

Secure

Attachment relationships are valued and regarded as influential but the subject appears objective in evaluating any particular relationship and its influence. Their comments are coherent and generalised descriptions are supported by specific memories.

- F1 Some setting aside of attachment
- F2 Some detachment
- F3 Very Secure
- F4 Slightly pre-occupied
- F5 Somewhat resentful/conflicted

Dismissing

Here the subject actively dismisses the importance of early attachment experiences on their personal development. Transcripts may be marked by idealisation, or by denigration or dismissal of attachment experiences.

- Ds1 Dismissing of attachment
- Ds2 Devaluing of attachment
- Ds3 Restricted in feeling
- Ds4 Cut off from source of fear regarding possible loss (rare)

Pre-occupied/Entangled

The transcripts are often long and rambling, marked by passive or pre-occupied thought processes. The influence of early attachments is rarely dismissed and they are rarely coherently described. There may be some oscillation between positive and negative evaluations.

- E1 Passive
- E2 Angry
- E3 Overwhelmed/fearfully pre-occupied (rare)

Appendix 5. AAI rating scale

Scales for experience

	Mother	Father	Other
Loving			
Rejecting			
Involving/reversing			
Pressure to achieve			
Neglecting			

Scales for states of mind respecting the parents (or other people)

	Mother	Father	Other
Idealising			
Involving anger			
Derogation			

Scales for overall states of mind

Overall Derogation of Attachment	
Insistence on Lack of Recall	NB Traumatic memory loss?
Metacognitive Processes	
Passivity of Thought Processes	
Fear of Loss	
Unresolved Loss (highest score)	
Unresolved Trauma (highest score)	
Coherence of Transcript	
Coherence of Mind	

Appendix 6. AAI classifications, subclasses and alternates

Table 81 AAI classifications, subclasses and alternates

ID code	Overall class	Subclass	1st Alternate
4	Untranscribable		
6	CC/U	E1	DS1
7	CC	E1	DS1/2
10	U/E3/E2/E1		E2
11	U/E1		E1
12	U/E3/E1/E2		
13	U	DS2	F2
15	DS	DS1	DS3
17	Untranscribable		
18	CC/U/DS1/E2		
19	U/DS2/DS1		DS2
21	CC/E/D/F	E3/E1/DS3/DS2	
25	CC/DS2/E1/U?		DS2
29	U	F1	DS3
31	CC/DS1/E1/U		DS1/U
33	U/DS2/DS1/DS3		
34	CC/U/E/DS2	E1/E2	DS2
38	Untranscribable		
42	CC/DS1/E2		
46	U/E1		
50	U/CC/E1/DS2		E1
51	U/DS1		DS1
52	CC/E/D/U		
53	F5/U		F5
56	U/DS1		DS1
57	U/DS1/DS3		
64	DS	DS1	DS1
67	DS	DS3	DS2
69	U/CC	E3	E2
73	DS1		
77	DS	DS1	
78	Untranscribable		
86	U	DS1	DS2
88	Untranscribable		
95	U	DS1	DS2

100	U/DS2		
102	DS1/U		
104	CC/E1/DS2/U		
105	DS2		
109	DS4/DS2/DS3		
112	E1		E2
114	U/E1		E1
118	U	E1	
119	CC/U/DS3/E1		DS3
120	CC/DS2/E2/U		
121	U/CC	E1	DS1/DS3
122	U/DS	DS	
125	DS1/U		
134	U/E1		
136	DS1/DS2/DS3		
141	DS2		DS2
142	DS2		DS2
144	DS3/DS1		DS3

Appendix 7. Dyad Grid instruction

Information to researcher

Below are suggestions about what you might say to the patient when asking them to complete the grid. It is important that you stress that we are looking at the persons *relationship* to important others in their lives (implicit in that might be feelings towards them). When talking to the patient try not to read what is written below, but use it as a guide to orient what you say to them, whilst remaining natural and responsive to their questions or concerns.

On a number of the elements, the patient may not know the person well enough to comment, e.g. a father who had limited contact with the patient, or a victim who they did not know. Try to encourage the patient to comment as well as they can; we often form feelings about someone and imagine what effect we had on them even when we do not know them well. Also some of the constructs will not be true for certain relationships - it is important to say that this is OK as some patients may be concerned about questions that relate to certain areas; for example thinking about parental sexual feelings towards them, whereas for others this will ring true to their experience.

If you do not manage to fill in an element; if you choose a parental figure rather than the parent; if you choose a primary nurse as opposed to a therapist - please mark this on the form.

Suggestions for comments to patients

This assessment helps us to understand the ways in which relationships have been important to you. We realise that some relationships are very difficult or painful while others are more helpful. Understanding both of these may help us understand the problems you have experienced better.

We are going to ask you to rate what your relationship with another person was like, that is, how you felt about them. Then we will ask you how you imagine they may feel about you. For some people you will have a very good idea of how they feel about you but for

others it may be harder. We would like you to imagine what you think they feel about you anyway.

This is not a test. There are no right or wrong answers. We would simply like to know your views and feelings about the relationships. Some of the questions may apply to a particular relationship and others may not apply at all. That is fine, just tell us how you see it. It will be personal and individual to each different person. Like the interview last week, this is confidential unless you specifically want us to tell someone.

Please ask if you have any questions.

Rating Scale

Not at All					**Very Much So**
1	2	3	4	5	6

Appendix 8. Raw Grid scores

ID: 4 Diag: MI Offence: Sexual

4	4	1	1	3	1	3	5	4	1	6	6
1	1	1	6	1	3	4	3	1	1	1	1
4	4	1	1	1	1	3	3	4	1	6	4
1	1	1	6	6	6	6	4	6	1	1	1
3	3	1	1	1	1	3	5	1	1	1	2
4	1	1	6	6	6	2	1	6	1	1	1
1	1	1	6	3	3	2	1	1	1	1	1
5	4	1	1	1	1	6	6	4	1	6	6

ID:_7_Diag:_MI_Offence:_Sexual

5	5	5	6	5	5	5	6	5	1	4	5
1	4	4	4.5	5	4.5	6	6	4	1	1	1
1	4	1	5	4	5.5	6	4	4	1	1	5
1	1	1	3	1	1	1	1	1	5	2.5	4
4	4	5	5	5.5	4.5	6	6	5	1	2	1
1	1	1	1	1	1	1	1	1	1	5	5
2	1	4.5	1	4	1	4.5	4	6	5	1	5
4.5	5	5.5	5	6	5	6	6	1	1	2	1

ID:_12_Diag:_MI_Offence:_Sexual

4	2	1	3	4	5	3	5	1	6	4	4
1	1	1	1	2	1	5	2	4	1	2	1
4	3	3	4	4	3	4	1	6	1	1	2
4	3	6	4	3	4	2	1	6	2	3	2
2	2	2	3	4	5	6	5	2	2	2	1
2	4	3	2	2	2	1	1	5	1	2	1
1	3	1	1	1	2	1	4	6	3	2	3
4	1	1	2	5	3	6	4	4	1	1	1

ID:_25_Diag:_MI_Offence:_Sexual

4	3	5	6	4	3	5	6	6	1	2	3
1	1	1	1	1	1	6	4	6	6	1	1
3	2	3	5	3	2	3	4	5	4	3	1
1	1	1	1	1	1	1	1	1	6	3	5
3.5	5	6	6	4	5	6	6	6	2	1	1
1	2	1	4	1	5	1	2	4	4	3	6
1	1	1	1	1	1	1	1	1	1	1	1
4	3	6	6	4	5	6	6	5	1	4	3

ID:_56_Diag:_MI_Offence:_Sexual

4	4	1	1	5	5	5	4	6	1	6	6
1	2	1	1	2	2	5	6	1	1	1	1
4	4	1	6	4	6	4	4	6	1	3	6
2	2	2	1	4	3	2	2	2	1	2	1
2	3	1	1	6	6	6	5	1	1	1	1
3	2	2	2	3	3	1	1	6	2	1	1
2	1	1	1	2	1	2	2	6	1	3	1
4	5	1	2	5	5	6	4	1	1	4	5

ID:_57_Diag:_MI_Offence:_Sexual

6	3	1	1	6	6	6	4	6	1	4	2
1	1	1	1	1	1	6	6	1	1	1	1
1	2	1	6	6	6	6	6	1	1	1	2
1	2	3	4	1	1	1	1	3	6	1	1
1	1	1	2	6	6	6	6	1	1	1	1
1	2	4	2	4.5	1	1	1	3	1	1	1
1	1	1	1	1	1	6	6	1	1	1	1
6	1	3	3	6	6	6	6	3	1	1	2

ID:_136_Diag:_MI_Offence:_Sexual

2	2	5	6	6	6	6	6	6	6	6	4
1	1	1	2	4	1	1	1	5	1	1	1
1	1	1	6	6	6	6	6	2	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
3	6	6	6	6	6	6	6	3	3	3	1
1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	2	1	1	1	1	1	1	1
6	6	6	6	6	6	6	6	6	1	1	1

ID:_144_Diag:_MI_Offence:_Sexual

6	6	6	6	6	6	6	6	1	6	6	6
1	1	1	1	1	1	6	6	6	3	1	1
6	6	1	5	1	2	1	1	1	1	1	3
1	1	1	1	1	6	1	1	1	6	6	3
6	6	6	6	2	6	6	6	3	1	1	1
1	1	1	1	1	6	1	1	1	6	6	1
3	5	1	1	1	1	1	1	1	6	1	1
1	1	1	6	2	1	1	6	1	1	3	6

ID:_10_Diag:_MI_Offence:_Violent

4	4	1	1	6	6	5	3	1	1	6	6
1	1	1	1	1	1	6	6	1	1	5	1
4	4	1	5	1	6	4	6	6	1	3	4
1	1	2	5	1	1	1	4	6	6	1	2
3	3	6	4	6	6	6	4	1	1	3	3
1	1	1	5	1	1	1	2	6	6	1	1
1	1	1	1	1	1	2	4	1	1	1	1
6	6	5	3	6	6	6	4	1	1	3	5

ID:_15_Diag:_MI_Offence:_Violent

5	5	4	4	5	6	4	4	1	1	4	6
1	1	1	1	1	1	5	5	1	1	1	1
4	5	2	3	2	4	4	2	1	1	1	2
5	2	4	5	2	1	2	1	5	6	3	1
5	4	4	5	6	6	6	6	1	1	1	3
2	1	3	2	1	1	2	2	5	6	1	1
1	1	1	1	1	1	1	1	1	1	1	1
3	3	6	6	6	6	4	6	1	1	1	1

ID:_17_Diag:_MI_Offence:_Violent

4	4	6	4	6	6	6	4	4	1	4	5
1	1	1	1	1	1	5	5	1	1	1	1
1	1	3	4	1	1	1	3	1	3	1	2
3	4	1	2	1	1	1	2	1	4	1	1
1	2	4	4	6	6	5	5	1	1	2	3
5	2	5	1	1	1	1	1	4	1	1	1
1	1	1	1	1	1	1	1	1	4	1	1
5	3	5	5	6	6	4	4	1	1	1	2

ID:_19_Diag:_MI_Offence:_Violent

5	4	6	6	3	1	5	6	2	3	4	4
1	2	1	1	1	2	6	5	1	1	1	1
3	4	1	5	1	5	4	3	3	3	2	4
2	3	3	3	4	4	3	2	2	3	2	1
4	4	5	5	4	4	5	5	1	1	2	2
1	2	3	2	4	5	2	1	3	3	2	1
1	1	1	1	3	4	2	2	1	1	2	1
4	4	6	5	6	4	6	5	1	1	2	4

ID:_31_Diag:_MI_Offence:_Violent

6	1	6	4	6	5	3	1	6	1	2	1
1	6	6	1	1	3	4	6	1	4	2	2
1	1	1	3	1	6	1	1	1	1	1	6
1	1	1	3	1	1	1	1	1	1	1	1
6	6	6	6	6	6	6	1	6	1	6	3
1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
1	6	6	6	6	6	4	1	6	1	1	1

ID:_34_Diag:_MI_Offence:_Violent

4	4	3	4	4	4	5	4	2	2	4	5
1	1	1	1	1	1	5	4	1	1	4	2
4	4	1	2	4	5	6	1	2	5	3	5
1	1	3	2	2	1	1	2	5	5	1	2
4	4	4	4	4	5	4	4	3	2	4	4
1	1	4	1	4	1	1	1	4	2	2	1
1	1	1	1	1	1	1	1	1	1	1	1
4	3	2	4	4	4	5	5	1	2	2	4

ID:_50_Diag:_MI_Offence:_Violent

6	6	6	4	6	2	4	3	3	5	5	6
1	1	1	1	1	2	6	5	1	1	1	1
6	3	3	4	4	2	4	2	3	3	3	4
2	3	6	2	2	2	3	4	3	2	3	2
3	6	4	5	5	6	4	5	5	5	3	3
2	3	2	3	2	2	3	2	3	2	3	1
2	1	1	1	1	1	4	1	2	1	2	1
6	6	5	5	4	6	4	4	3	5	3	4

ID:_53_Diag:_MI_Offence:_Violent

6	6	6	6	6	6	1	1	4	1	6	6
1	1	1	1	3	1	6	6	1	1	2	2
3	6	5	3	3	6	1	6	6	1	1	2
1	1	1	1	1	1	1	5	6	1	1	1
6	6	6	6	6	6	6	6	1	1	2	2
1	1	1	1	1	1	4	1	6	6	6	1
1	1	1	1	1	1	1	1	1	1	1	5
6	6	6	6	5	6	6	1	1	1	5	6

ID:_64_Diag:_MI_Offence:_Violent

3	4	5	5	4	5	6	6	3	2	1	4
1	1	1	1	1	1	6	5	1	1	1	1
5	3	4	4	4	5	5	4	1	1	1	3
3	2	1	1	1	1	1	1	1	1	1	1
4	4	6	6	6	6	6	6	6	4	4	4
1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	5	4	1	1	1	1
3	4	6	5	5	6	5	6	4	4	4	3

ID:_73_Diag:_MI_Offence:_Violent

5	5.5	4	3	6	6	5	4	3	2	3	4
3	4	2	1	1	2.5	4	4	2	1	1	1
3	3	3	4	4.5	4	4	4	1	1	4	2
1	2	1	1	1	4	2	2	6	6	2	2
4	4	5	5	5	4	4	5	1	1	1	2
1	1	3	3	3	3	2	2	6	1	3	1
1	1	1	1	1	2	2	1	1	1	1	1
5	5	3	6	3	4.5	4	2	1	1	1	3

ID:_11_Diag:_PD_Offence:_Sexual

4	5	4	3	3	3	4	4	4	1	4	4
5	4	1	1	1	1	4	4	1	2	2	2
2	2	1	2	1	1	1	1	5	1	1	1
1	1	2	2	4	3	5	1	5	6	1	1
5	4	3	3	4	3	4	3	1	1	1	1
1	1	3	3	3	2	3	1	5	6	2	1
1	1	1	1	1	1	1	1	5	1	3	1
6	5	3	2	3	2	5	3	1	1	1	2

ID:_18_Diag:_PD_Offence:_Sexual

4	4	1	1	3	3	6	5	4	1	4	5
1	1	1	1	1	1	6	6	3	1	1	1
1	1	1	1	4	4	2	3	5	1	2	3
3	3	6	6	2	3	1	1	4	6	2	1
1	2	1	1	4	3	6	5	1	1	1	1
2	1	6	6	1	2	1	1	5	1	1	1
1	1	1	1	1	1	1	1	5	1	1	1
4	3	1	1	5	3	6	4	1	1	1	1

ID:_29_Diag:_PD_Offence:_Sexual

6	5	1	1	6	6	4	6	6	1	5	6
6	6	1	1	1	1	6	6	1	6	1	1
3	4	1	1	4	4	6	3	6	4	2	5
4	3	6	6	1	1	3	4	4	1	4	1
6	6	1	1	6	6	6	6	1	5	1	1
3	1	6	6	3	6	2	5	6	3	2	3
5	1	1	1	1	1	1	3	5	5	1	1
6	6	1	1	6	6	6	6	5	6	5	6

ID:_38_Diag:_PD_Offence:_Sexual

6	4	1	1	6	5	6	6	6	1	5	6
1	1	1	1	1	1	6	4	1	1	1	1
1	1	1	1	1	3	3.5	4	6	1	1	1
1	1	3	4	1	1	1	2	1	6	1	1
1	2	4	2	6	6	6	6	1	1	1	1
2	5	5	6	1	1	1	1	3	6	1	1
1	1	1	1	1	1	3	1	5	1	1	1
1	1	1	2	6	5	6	2	1	1	2	1

ID:_102_Diag:_PD_Offence:_Sexual

3	4	5	4	4	5	4	3	6	1	5	5
2	1	2	1	3	1	5	5	3	2	1	1
1	2	1	5	1	6	1	5	2	3	1	2
3	2	3	5	1	5	1	5	1	4	1	1
2	1	5	6	6	5	5	4	3	3	3	1
1	3	3	1	1	1	1	3	2	2	1	1
1	1	1	1	1	1	1	1	1	5	1	1
3	5	6	6	6	6	5	5	2	2	4	2

ID:_105_Diag:_PD_Offence:_Sexual

6	6	2	2	4	1	4	6	1	2	6	6
6	6	1	1	1	1	6	4	6	1	1	1
4	3	1	1	4	1	3	6	6	1	1	3
1	1	4	2	2	6	1	2	1	1	3	1
6	6	1	1	1	1	4	3	6	4	1	1
1	1	5	6	3	5	2	5	1	1	1	1
3	4	1	1	1	1	3	4	6	1	3	1
6	4	3	2	2	1	6	3	6	3	4	3

ID:_118_Diag:_PD_Offence:_Sexual

4	3	2	2	5	4	6	5	1	1	5	6
2	2	1	1	1	1	6	5	1	1	1	1
1	1	1	4	1	2	1	3	4	2	1	2
1	3	4	4	1	2	1	3	6	6	1	1
3	4	2	2	6	5	6	6	1	1	2	2
2	3	4	3	1	2	1	2	6	6	1	1
1	1	1	1	1	1	1	1	6	1	1	1
4	3	2	3	6	6	6	6	1	1	3	4

ID:_125_Diag:_PD_Offence:_Sexual

6	6	6	6	4	1	4	4	1	1	2	1
1	1	1	1	1	1	2	4	1	1	1	1
3	1	3	4	3	1	4	1	6	1	1	1
1	1	2	1	1	1	1	1	1	1	4	1
3	2	4	6	6	6	4	4	1	1	1	1
3	2	1	1	1	1	1	1	1	1	1	4
1	1	1	1	1	1	4	2	1	1	1	1
4	6	6	6	6	6	6	4	1	1	1	1

ID:_13_Diag:_PD_Offence:_Violent

5	4	1	1	1	1	4	4	1	1	2	2
2	1	1	1	1	1	3	2	1	1	1	1
1	1	2	2	3	1	2	2	5	1	1	4
1	1	6	6	5	5	1	1	5	6	6	2
3	3	1	1	1	1	3	4	1	1	1	1
1	1	6	6	5	5	1	1	6	1	3	2
1	1	1	1	1	1	1	1	1	1	1	1
4	3	1	1	2	1	4	4	1	1	2	2

ID:_52_Diag:_PD_Offence:_Violent

4	4	1	1	4	2	4	5	2	2	4	5
4	2	1	1	1	1	5	4	1	1	6	3
2	1	3	4	3	5	3	3	2	4	3	5
1	2	6	5	5	2	1	3	5	3	1	3
3	4	6	2	2	2	4	3	2	2	4	4
3	2	6	6	4	5	3	1	5	5	2	1
1	1	1	1	1	1	3	3	1	1	4	6
5	2	1	2	4	2	5	4	1	3	6	4

ID:_121_Diag:_PD_Offence:_Violent

5	5	3	1	6	4	6	4	1	2	5	6
1	1	1	2	1	1	5	5	1	1	1	1
5	4	1	3	1	1	3	4	5	1	1	1
1	1	6	6	1	1	1	1	6	2	1	1
6	6	2	2	6	6	6	6	3	4	1	1
1	1	2	2	2	1	1	1	3	2	1	1
1	1	1	5	1	1	1	1	3	1	1	1
5	5	1	5	2	6	4	5	1	1	1	1

ID:_142_Diag:_PD_Offence:_Violent

5	5	5	2	5	6	5	4	1	2	5	4
1	1	1	1	1	1	2	5	1	1	1	1
1	1	1	1	1	1	2	6	6	1	1	1
1	1	1	4	1	1	1	1	6	1	2	1
3	4	2	4	6	6	4	5	1	1	1	2
1	1	1	2	1	1	1	1	6	1	2	1
1	1	1	1	1	1	1	1	1	1	1	1
4	4	6	3	6	6	5	6	1	1	1	4

Appendix 9. Maximum and minimum responses for dyad repertory grids

Table 82. Overall grid data (n=30): maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	6	6	6
Sexually attracted to — B	6	6	6	6	5	4.5	6	6	6	6	6	3
Controlling — C	6	6	5	6	6	6	6	6	6	5	6	6
Rejecting — D	5	4	6	6	6	6	6	5	6	6	6	5
Loving — E	6	6	6	6	6	6	6	6	6	5	6	4
Neglecting — F	5	5	6	6	6	6	4	5	6	6	6	6
Sexually intimidating — G	5	5	4.5	6	4	4	6	6	6	6	4	6
Protective — H	6	6	6	6	6	6	6	6	6	6	6	6

Table 83. Overall grid data (n=30): minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	2	1	1	1	1	1	1	1	1	1	1	1
Sexually attracted to — B	1	1	1	1	1	1	1	1	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	1	1	1	1
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	1	1	1	1	1	3	1	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	1	1	1	1	1	1	1	1	1	1	1

SMI:Sex (n=8)

Table 84 Overall grid data SMI:sex (n=8): maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	6	6	6
Sexually attracted to — B	1	4	4	6	5	4.5	6	6	6	6	2	1
Controlling — C	6	6	3	6	6	6	6	6	6	4	6	6
Rejecting — D	4	3	6	6	6	6	6	4	6	6	6	5
Loving — E	6	6	6	6	6	6	6	6	6	3	3	2
Neglecting — F	4	4	4	6	6	6	2	2	6	6	6	6
Sexually intimidating — G	3	5	4.5	6	4	3	6	6	6	6	3	5
Protective — H	6	6	6	6	6	6	6	6	6	1	6	6

Table 85 Overall grid data SMI:sex (n=8): minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	2	2	1	1	3	1	3	4	1	1	2	2
Sexually attracted to — B	1	1	1	1	1	1	1	1	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	1	1	1	1
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	1	1	1	1	1	3	5	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	1	1	1	1	1	1	4	1	1	1	1

SMI:Violence (n=10)

Table 86 Overall grid data SMI:violence (n=10): maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	5	6	6
Sexually attracted to — B	3	6	6	1	3	3	6	6	2	4	5	2
Controlling — C	6	6	5	5	4.5	6	6	6	6	5	4	6
Rejecting — D	5	4	6	5	4	4	3	5	6	6	3	2
Loving — E	6	6	6	6	6	6	6	6	6	5	6	4
Neglecting — F	5	3	5	5	4	5	4	2	6	6	6	1
Sexually intimidating — G	2	1	1	1	3	4	5	4	2	4	2	5
Protective — H	6	6	6	6	6	6	6	6	6	5	5	6

Table 87 Overall grid data SMI:violence (n=10): minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	3	1	1	1	3	1	1	1	1	1	1	1
Sexually attracted to — B	1	1	1	1	1	1	4	4	1	1	1	1
Controlling — C	1	1	1	2	1	1	1	1	1	1	1	2
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	2	4	4	4	4	4	1	1	1	1	2
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	3	2	3	3	4	4	1	1	1	1	1

PD:Sex (n=8)

Table 88 Overall grid data PD:sex (n=8): maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	2	6	6
Sexually attracted to — B	6	6	2	1	3	1	6	6	6	6	2	2
Controlling — C	4	4	3	5	4	6	6	6	6	4	2	5
Rejecting — D	4	3	6	6	4	6	5	5	6	6	4	1
Loving — E	6	6	5	6	6	6	6	6	6	5	3	2
Neglecting — F	3	5	6	6	3	6	3	5	6	6	2	4
Sexually intimidating — G	5	4	1	1	1	1	4	4	6	5	3	1
Protective — H	6	6	6	6	6	6	6	6	6	6	5	6

Table 89 Overall grid data PD:sex (n=8): minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	3	3	1	1	3	1	4	3	1	1	2	1
Sexually attracted to — B	1	1	1	1	1	1	2	4	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	2	1	1	1
Rejecting — D	1	1	2	1	1	1	1	1	1	1	1	1
Loving — E	1	1	1	1	1	1	4	3	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	1	1	1	2	1	5	2	1	1	1	1

PD:violence (n=4)

Table 90 Overall grid data PD:violence (n=4): maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	5	5	5	2	6	6	6	5	2	2	5	6
Sexually attracted to — B	4	2	1	2	1	1	5	5	1	1	6	3
Controlling — C	5	4	3	4	3	5	3	6	6	4	3	5
Rejecting — D	1	2	6	6	5	5	1	3	6	6	6	3
Loving — E	6	6	6	4	6	6	6	6	3	4	4	4
Neglecting — F	3	2	6	6	5	5	3	1	6	5	3	2
Sexually intimidating — G	1	1	1	5	1	1	3	3	3	1	4	6
Protective — H	5	5	6	5	6	6	5	6	1	3	6	4

Table 91 Overall grid data PD:sex (n=8): minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	4	4	1	1	1	1	4	4	1	1	2	2
Sexually attracted to — B	1	1	1	1	1	1	2	2	1	1	1	1
Controlling — C	1	1	1	1	1	1	2	2	2	1	1	1
Rejecting — D	1	1	1	4	1	1	1	1	5	1	1	1
Loving — E	3	3	1	1	1	1	3	3	1	1	1	1
Neglecting — F	1	1	1	2	1	1	1	1	3	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	4	2	1	1	2	1	4	4	1	1	1	1

Grid data summarised: SMI

Table 92 Overall grid data SMI: maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	6	6	6
Sexually attracted to — B	3	6	6	6	5	4.5	6	6	6	6	5	2
Controlling — C	6	6	5	6	6	6	6	6	6	5	6	6
Rejecting — D	5	4	6	6	6	6	6	5	6	6	6	5
Loving — E	6	6	6	6	6	6	6	6	6	5	6	4
Neglecting — F	5	4	5	6	6	6	4	2	6	6	6	6
Sexually intimidating — G	3	5	4.5	6	4	4	6	6	6	6	3	5
Protective — H	6	6	6	6	6	6	6	6	6	5	6	6

Table 93 Overall grid data SMI: minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	2	1	1	1	3	1	1	1	1	1	1	1
Sexually attracted to — B	1	1	1	1	1	1	1	1	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	1	1	1	1
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	1	1	1	1	1	3	1	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	1	1	1	1	1	1	1	1	1	1	1

PD (n=12)

Table 94 Overall grid data PD: maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	2	6	6
Sexually attracted to — B	6	6	2	2	3	1	6	6	6	6	6	3
Controlling — C	5	4	3	5	4	6	6	6	6	4	3	5
Rejecting — D	4	3	6	6	5	6	5	5	6	6	6	3
Loving — E	6	6	6	6	6	6	6	6	6	5	4	4
Neglecting — F	3	5	6	6	5	6	3	5	6	6	3	4
Sexually intimidating — G	5	4	1	5	1	1	4	4	6	5	4	6
Protective — H	6	6	6	6	6	6	6	6	6	6	6	6

Table 95 Overall grid data SMI: minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	3	3	1	1	1	1	4	3	1	1	2	1
Sexually attracted to — B	1	1	1	1	1	1	2	2	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	2	1	1	1
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	1	1	1	1	1	3	3	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	1	1	1	2	1	4	2	1	1	1	1

Sexual offence (n=16)

Table 96 Overall grid data Sexual offence: maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	6	6	6
Sexually attracted to — B	6	6	4	6	5	4.5	6	6	6	6	2	2
Controlling — C	6	6	3	6	6	6	6	6	6	4	6	6
Rejecting — D	4	3	6	6	6	6	6	5	6	6	6	5
Loving — E	6	6	6	6	6	6	6	6	6	5	3	2
Neglecting — F	4	5	6	6	6	6	3	5	6	6	6	6
Sexually intimidating — G	5	5	4.5	6	4	3	6	6	6	6	3	5
Protective — H	6	6	6	6	6	6	6	6	6	6	6	6

Table 97 Overall grid data Sexual offence: minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	2	2	1	1	3	1	3	3	1	1	2	1
Sexually attracted to — B	1	1	1	1	1	1	1	1	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	1	1	1	1
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	1	1	1	1	1	3	3	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	1	1	1	1	1	1	2	1	1	1	1

Violent (n=14)

Table 98 Overall grid data Violent offence: maxima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	6	6	6	6	6	6	6	6	6	5	6	6
Sexually attracted to — B	4	6	6	2	3	3	6	6	2	4	6	3
Controlling — C	6	6	5	5	4.5	6	6	6	6	5	4	6
Rejecting — D	5	4	6	6	5	5	3	5	6	6	6	3
Loving — E	6	6	6	6	6	6	6	6	6	5	6	4
Neglecting — F	5	3	6	6	5	5	4	2	6	6	6	2
Sexually intimidating — G	2	1	1	5	3	4	5	4	3	4	4	6
Protective — H	6	6	6	6	6	6	6	6	6	5	6	6

Table 99 Overall grid data Violent offence: minima

	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	3	1	1	1	1	1	1	1	1	1	1	1
Sexually attracted to — B	1	1	1	1	1	1	2	2	1	1	1	1
Controlling — C	1	1	1	1	1	1	1	1	1	1	1	1
Rejecting — D	1	1	1	1	1	1	1	1	1	1	1	1
Loving — E	1	2	1	1	1	1	3	1	1	1	1	1
Neglecting — F	1	1	1	1	1	1	1	1	1	1	1	1
Sexually intimidating — G	1	1	1	1	1	1	1	1	1	1	1	1
Protective — H	1	2	1	1	2	1	4	1	1	1	1	1

Appendix 10. Grid element/construct responses

Tables of p values and significance charts (diagnosis entered as the first term)

Table 100. ANOVA for each grid rating: interaction p values

p-values for interaction effect in 2-way ANOVA for each grid rating ANOVA entering diagnosis first	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you
Understanding - A	0.53	0.39	0.24	0.26	0.50	0.82	0.63	0.30	0.55	0.20	0.76	0.52
Sexually attracted to - B	0.25	0.15	0.68	0.08	0.37	0.68	0.10	0.13	0.28	0.79	0.72	0.84
Controlling - C	0.91	0.81	0.64	0.30	0.58	0.42	0.69	0.52	0.67	0.53	0.70	0.94
Rejecting - D	0.14	0.12	0.62	0.23	0.09	0.63	0.64	0.09	0.31	0.63	0.30	0.04
Loving - E	0.67	0.80	0.33	0.20	0.11	0.36	0.57	0.41	0.99	0.69	0.32	0.11
Neglecting - F	0.79	0.52	0.43	0.80	0.13	0.20	0.30	0.04	0.59	0.30	0.31	0.45
Sexually intimidating - G	0.61	0.61	0.39	0.08	0.22	0.96	0.96	0.62	0.48	0.95	0.52	0.14
Protective - H	0.83	0.14	0.12	0.32	0.08	0.16	0.44	0.05	0.93	0.21	0.81	0.96

Table 101. ANOVA for grid rating: interaction significance

Significance for interaction effect in 2-way ANOVA for each grid rating ANOVA entering diagnosis first	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you	Number significant at p<.05
Understanding - A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Sexually attracted to - B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Controlling - C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Rejecting - D	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	*	1
Loving - E	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Neglecting - F	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	NS	1
Sexually intimidating - G	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Protective - H	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	NS	1
Number significant at p<.05	0	0	0	0	0	0	0	2	0	0	0	1	3

The odds of 3 or more significant at p<.05 given 96 possible are p=.86.

Table 102. ANOVA for each grid rating. p value for diagnosis

p-values of effect of diagnosis in 2-way ANOVA for each grid rating ANOVA entering diagnosis first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you
Understanding - A	0.60	0.25	0.08	0.01	0.11	0.08	0.77	0.49	0.32	0.10	0.92	0.93
Sexually attracted to - B	0.00	0.40	0.32	0.26	0.23	0.04	0.39	0.66	0.46	0.96	0.90	0.64
Controlling - C	0.07	0.01	0.16	0.00	0.20	0.02	0.09	0.97	0.01	0.95	0.13	0.19
Rejecting - D	0.66	0.75	0.01	0.01	0.73	0.60	0.65	0.87	0.45	0.92	0.62	0.14
Loving - E	0.89	0.53	0.02	0.01	0.52	0.09	0.16	0.26	0.25	0.42	0.11	0.01
Neglecting - F	0.84	0.48	0.00	0.01	0.96	0.64	1.00	0.09	0.58	0.66	0.16	1.00
Sexually intimidating - G	0.51	0.82	0.42	0.90	0.06	0.14	0.49	0.47	0.04	0.85	0.34	0.79
Protective - H	0.96	0.89	0.06	0.01	0.64	0.36	0.51	0.69	0.33	0.43	0.90	0.36

Table 103. ANOVA for grid rating: significance for diagnosis

Significance of effect of diagnosis in 2-way ANOVA for each grid rating ANOVA entering diagnosis first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you	Number significant at p<.05
Understanding - A	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	1
Sexually attracted to - B	*	NS	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	2
Controlling - C	NS	*	NS	*	NS	*	NS	NS	*	NS	NS	NS	4
Rejecting - D	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Loving - E	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	*	2
Neglecting - F	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Sexually intimidating - G	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	2
Protective - H	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	1
Number significant at p<.05	1	1	3	6	0	2	0	0	2	0	0	1	16

Probability of 16 or more from 96 is p=.00002.

Table 104. ANOVA for grid rating: p values for offence type

p-values of effect of offence in 2-way ANOVA for each grid rating ANOVA entering diagnosis first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you
Understanding - A	0.61	0.40	0.24	0.72	0.90	0.95	0.54	0.01	0.02	0.53	0.20	0.86
Sexually attracted to - B	0.62	0.62	0.82	0.11	0.07	0.60	0.63	0.62	0.00	0.21	0.06	0.08
Controlling - C	0.57	0.93	0.08	0.26	0.19	0.99	0.42	0.91	0.21	0.42	0.97	0.48
Rejecting - D	0.97	0.82	0.41	0.45	0.85	0.19	0.35	0.64	0.05	0.71	0.49	0.48
Loving - E	0.26	0.29	0.15	0.37	0.69	0.85	0.13	0.18	0.85	0.79	0.04	0.00
Neglecting - F	0.58	0.17	0.67	0.74	0.81	0.33	0.18	0.36	0.27	0.89	0.95	0.09
Sexually intimidating - G	0.12	0.10	0.27	0.97	0.12	0.95	0.55	0.28	0.00	0.08	0.96	0.63
Protective - H	0.89	0.34	0.21	0.28	0.86	0.34	0.06	0.14	0.09	0.53	0.61	0.77

Table 105. ANOVA for grid rating: significance of offence type

Significance of effect of offence in 2-way ANOVA for each grid rating ANOVA entering diagnosis first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you	Number significant at p<.05
Understanding - A	NS	NS	NS	NS	NS	NS	NS	*	*	NS	NS	NS	2
Sexually attracted to - B	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Controlling - C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Rejecting - D	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Loving - E	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	*	*	2
Neglecting - F	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Sexually intimidating - G	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Protective - H	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Number significant at p<.05	0	0	0	0	0	0	0	1	4	0	1	1	7

Probability of 16 or more from 96 is p=.2.

Tables of p values and significance charts (offence entered as the first term)

Table 106. ANOVA for grid rating: p values for offence type

p-values of effect of diagnosis in 2-way ANOVA for each grid rating ANOVA entering offence first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you
Understanding - A	0.54	0.19	0.14	0.01	0.12	0.09	0.88	0.91	0.13	0.08	0.85	0.96
Sexually attracted to - B	0.01	0.47	0.35	0.15	0.12	0.03	0.35	0.75	0.15	0.82	0.76	0.40
Controlling - C	0.10	0.01	0.32	0.00	0.13	0.03	0.07	0.99	0.03	0.82	0.14	0.26
Rejecting - D	0.66	0.79	0.01	0.01	0.70	0.82	0.52	0.79	0.24	0.99	0.73	0.11
Loving - E	0.90	0.71	0.04	0.01	0.59	0.11	0.09	0.17	0.25	0.40	0.27	0.17
Neglecting - F	0.94	0.69	0.00	0.02	0.92	0.81	0.77	0.15	0.44	0.64	0.17	0.70
Sexually intimidating - G	0.76	0.55	0.31	0.91	0.03	0.15	0.42	0.35	0.16	0.56	0.35	0.87
Protective - H	0.94	0.94	0.12	0.03	0.62	0.49	0.83	0.47	0.19	0.37	0.99	0.41

Table 107. ANOVA for grid rating: significance for offence type

Significance of effect of diagnosis in 2-way ANOVA for each grid rating ANOVA entering offence first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you	Number significant at p<.05
Understanding - A	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	1
Sexually attracted to - B	*	NS	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	2
Controlling - C	NS	*	NS	*	NS	*	NS	NS	*	NS	NS	NS	4
Rejecting - D	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Loving - E	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Neglecting - F	NS	NS	*	*	NS	NS	NS	NS	NS	NS	NS	NS	2
Sexually intimidating - G	NS	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	1
Protective - H	NS	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	1
Number significant at p<.05	1	1	3	6	1	2	0	0	1	0	0	0	15

Probability of 16 or more from 96 is p=.00002.

Table 108. ANOVA for grid rating: p values for diagnosis

p-values of effect of offence in 2-way ANOVA for each grid rating ANOVA entering offence first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you
Understanding - A	0.70	0.57	0.13	0.81	0.63	0.75	0.51	0.01	0.03	0.80	0.20	0.85
Sexually attracted to - B	0.25	0.50	0.66	0.18	0.13	0.96	0.78	0.56	0.00	0.21	0.06	0.11
Controlling - C	0.34	0.50	0.04	0.70	0.31	0.60	0.67	0.90	0.08	0.44	0.71	0.33
Rejecting - D	0.95	0.77	0.85	0.88	0.91	0.16	0.42	0.67	0.08	0.70	0.44	0.72
Loving - E	0.26	0.24	0.06	0.14	0.60	0.58	0.24	0.29	0.95	0.93	0.02	0.00
Neglecting - F	0.56	0.14	0.80	0.37	0.83	0.29	0.19	0.21	0.34	0.97	0.71	0.09
Sexually intimidating - G	0.10	0.12	0.36	0.95	0.26	0.70	0.67	0.36	0.00	0.10	0.80	0.60
Protective - H	0.90	0.33	0.11	0.11	0.94	0.26	0.05	0.18	0.15	0.66	0.60	0.63

Table 109. ANOVA for grid rating: significance of diagnosis

Significance of effect of offence in 2-way ANOVA for each grid rating ANOVA entering offence first after interaction term	1 - You towards a friend	2 - Your friend towards you	3 - You towards you father	4 - Your father towards you	5 - You towards your mother	6 - Your mother towards you	7 - You towards your partner	8 - Your partner towards you	9 - You towards your victim	10 - Your victim towards you	11 - You towards your therapist	12 - Your therapist towards you	Number significant at p<.05
Understanding - A	NS	NS	NS	NS	NS	NS	NS	*	*	NS	NS	NS	2
Sexually attracted to - B	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Controlling - C	NS	NS	*	NS	NS	NS	NS	NS	NS	NS	NS	NS	1
Rejecting - D	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Loving - E	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	*	*	2
Neglecting - F	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0
Sexually intimidating - G	NS	NS	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	1
Protective - H	NS	NS	NS	NS	NS	NS	*	NS	NS	NS	NS	NS	1
Number significant at p<.05	0	0	1	0	0	0	1	1	3	0	1	1	8

Probability of 7 or more from 96 is p=.11.

Appendix 11. Worked example of cityblock distances

A city block distance is the sum of the absolute difference between the two elements across all the constructs.

This is illustrated from the first full grid in the final dataset:

ID: 4 Diag: SMI Offence: Sexual	1 — You towards a friend	2 — Your friend towards you	3 — You towards you father	4 — Your father towards you	5 — You towards your mother	6 — Your mother towards you	7 — You towards your partner	8 — Your partner towards you	9 — You towards your victim	10 — Your victim towards you	11 — You towards your therapist	12 — Your therapist towards you
Understanding — A	4	4	1	1	3	1	3	5	4	1	6	6
Sexually attracted to — B	1	1	1	6	1	3	4	3	1	1	1	1
Controlling — C	4	4	1	1	1	1	3	3	4	1	6	4
Rejecting — D	1	1	1	6	6	6	6	4	6	1	1	1
Loving — E	3	3	1	1	1	1	3	5	1	1	1	2
Neglecting — F	4	1	1	6	6	6	2	1	6	1	1	1
Sexually intimidating — G	1	1	1	6	3	3	2	1	1	1	1	1
Protective — H	5	4	1	1	1	1	6	6	4	1	6	6

The city block distance between "Self→Friend" and "Friend→Self" is:

$|4-4| + |1-1| + |4-4| + |1-1| + |3-3| + |4-1| + |1-1| + |5-4| = 0 + 0 + 0 + 0 + 0 + 3 + 0 + 1 = 4$

The distance for "Self→Father"/"Father→Self" is 20

The distance for "Self→Mother"/"Mother→Self" is 4

The distance for "Self→Victim"/"Victim→Self" is 19

The listing of these paired inter-element distances is shown on the left of the table below (Appendix 12). Those distances were then converted to absolute deviations from the mean for that distance across all 30 participants resulting in the values that were analysed. These are shown on the right of the table.

Appendix 12. Table of cityblock distances

Table 110 Cityblock distances for the examined elements in all participants with complete grids.

	City block distances				Absolute deviation from mean city block distance for element pair			
ID	"Self→Friend"/ "Friend→Self"	"Self→Father"/ "Father→Self"	"Self→Mother"/ "Mother→Self"	"Self→Victim"/ "Self→Victim"	"Self→Friend"/ "Friend→Self"	"Self→Father"/ "Father→Self"	"Self→Mother"/ "Mother→Self"	"Self→Victim"/ "Self→Victim"
4	4	20	4	19	1.45	12.95	2.30	5.70
7	7.5	11.5	7	19	2.05	4.45	.70	5.70
12	11	8	8	27	5.55	.95	1.70	13.70
25	5.5	6	8	19	.05	1.05	1.70	5.70
56	5	7	4	20	.45	.05	2.30	6.70
57	11	9	3.5	12	5.55	1.95	2.80	1.30
136	3	7	4	10	2.45	.05	2.30	3.30
144	2	9	16	25	3.45	1.95	9.70	11.70
10	0	15	5	5	5.45	7.95	1.30	8.30
15	6	4	4	2	.55	3.05	2.30	11.30
17	7	8	0	14	1.55	.95	6.30	.70
19	5	6	11	2	.45	1.05	4.70	11.30
31	15	11	8	18	9.55	3.95	1.70	4.70
34	1	8	6	7	4.45	.95	.30	6.30
50	9	9	10	7	3.55	1.95	3.70	6.30
53	3	2	6	13	2.45	5.05	.30	.30
64	5	1	3	3	.45	6.05	3.30	10.30
73	2.5	6	8.5	7	2.95	1.05	2.20	6.30
11	4	3	4	14	1.45	4.05	2.30	.70
18	3	0	5	19	2.45	7.05	1.30	5.70
29	9	0	3	23	3.55	7.05	3.30	9.70
38	6	5	4	22	.55	2.05	2.30	8.70
102	9	11	13	14	3.55	3.95	6.70	.70
105	4	4	13	21	1.45	3.05	6.70	7.70
118	6	5	5	7	.55	2.05	1.30	6.30
125	6	4	5	5	.55	3.05	1.30	8.30
13	3	0	3	10	2.45	7.05	3.30	3.30
52	9	7	10	6	3.55	.05	3.70	7.30
121	1	13	7	13	4.45	5.95	.70	.30
142	1	12	1	16	4.45	4.95	5.30	2.70
Mean	5.45	7.05	6.30	13.30				

Appendix 13. Inventory of Interpersonal Problems Sub-scale descriptions.

Horowitz et al 1988:

Ho. Assert	Hard to be assertive
Ho. Sociab	Hard to be sociable
Ho. Submis	Hard to be submissive
Ho. Intimac	Hard to be intimate
Ho. Respon	Too responsible
Ho. Control	Too controlling

Barkham et al, 1994 and 1996:

H_assert	Hard to be assertive
H_sociab	Hard to be sociable
H_suppor	Hard to be supportive
T_caring	Too caring
T_depend	Too dependent
T_aggress	Too aggressive
H_Involv	Hard to be involved
T_Open	Too open

The Barkham short version (1996) is denoted by B32, followed by the scale name.

Soldz et al, 1995

I32PA	Domineering
I32BC	Vindictive
I32DE	Cold
I32FG	Socially avoidant
I32HI	Nonassertive
I32JK	Exploitable
I32LM	Overly nurturant
I32NO	Intrusive

Pilkonis et al, 1997

PD1	Interpersonal sensitivity
PD2	interpersonal ambivalence
PD3	Aggression
C1	Need for social approval
C2	Lack of sociability

Riding and Cartwright 1999:

LN	Lower Neutral
LC	Lower Close
NC	Neutral Close
UC	Upper Close
UN	Upper Neutral
UD	Upper Distant
ND	Neutral Distant
LD	Lower Distant

Appendix 14. Sub-scales where significant differences were found for referential clinical groups

Scale	Ref. Mean	Referential clinical population	Reference	PhD mean	PhD group	CI
1. PI C1 :	2.1	Mixed IP & OP	Pilkonis	1.44	All53	-0.97 to -0.36
2. PI PD1 :	1.91	Mixed IP & OP	Pilkonis	1.32	All53	-0.84 to -0.33
3. PI PD2 :	1.04	Mixed IP & OP	Pilkonis	1.34	All53	0.05 to 0.55
4. H SUPPOR	0.69	Mixed O/P & sex	S&Evans	1.25	All53	0.34 to 0.78
5. I32JK :	1.92	Out-patient brief	Soldz et	1.38	All53	-0.85 to -0.23
6. I32LM :	2.14	Out-patient brief	Soldz et	1.46	All53	-1.01 to -0.36
7. I32NO :	1.43	Out-patient brief	Soldz et	0.96	All53	-0.81 to -0.13
8. HO ASSER	1.86	Out-Patients	Horowitz	1.38	All53	-0.75 to -0.21
9. B32H ASS	1.87	patients	Barkham	1.39	All53	-0.87 to -0.09
10. B32H SUP	0.96	patients	Barkham	1.38	All53	0.09 to 0.75
11. B32T AGG	1.49	patients	Barkham	1.11	All53	-0.75 to -0.02
12. B32T DEP	1.6	patients	Barkham	0.94	All53	-0.97 to -0.34
13. B32T OPE	1.45	patients	Barkham	2.49	All53	0.7 to 1.39
14. H ASSERT	2.08	SPP2 & CPP	Barkham	1.4	All53	-0.92 to -0.43
15. H SOCIAB	1.72	SPP2 & CPP	Barkham	1.4	All53	-0.6 to -0.04
16. H SUPPOR	0.91	SPP2 & CPP	Barkham	1.25	All53	0.11 to 0.56
17. TOO CARI	1.64	SPP2 & CPP	Barkham	1.33	All53	-0.55 to -0.07
18. TOO DEP :	1.65	SPP2 & CPP	Barkham	1.24	All53	-0.65 to -0.16
19. Total127 :	1.56	SPP2 & CPP	Barkham	1.3	All53	-0.43 to -0.1
20. PI C2 :	1.12	Students with bpd	Stern et al	1.43	All53	0.02 to 0.59
21. PI PD1 :	1.75	Students with bpd	Stern et al	1.32	All53	-0.86 to 0
22. PI PD2 :	0.9	Students with bpd	Stern et al	1.34	All53	0.22 to 0.66
23. PI PD3 :	1.58	Students with bpd	Stern et al	0.97	All53	-1.18 to -0.04
24. I32HI :	2.32	Time ltd group	Soldz et	1.5	All53	-1.13 to -0.52
25. I32JK :	2.05	Time ltd group	Soldz et	1.38	All53	-0.95 to -0.39
26. I32LM :	2.1	Time ltd group	Soldz et	1.46	All53	-0.95 to -0.33
27. I32NO :	1.41	Time ltd group	Soldz et	0.96	All53	-0.76 to -0.14
28. I32DE :	2	Time-ltd group PD	Soldz et	1.53	All53	-0.84 to -0.1
29. I32FG :	2.3	Time-ltd group PD	Soldz et	1.59	All53	-1.07 to -0.35
30. I32HI :	2.32	Time-ltd group PD	Soldz et	1.5	All53	-1.16 to -0.49
31. I32JK :	1.94	Time-ltd group PD	Soldz et	1.38	All53	-0.87 to -0.24
32. I32LM :	1.83	Time-ltd group PD	Soldz et	1.46	All53	-0.72 to -0.03
33. I32NO :	1.37	Time-ltd group PD	Soldz et	0.96	All53	-0.74 to -0.08
34. PI C2 :	1.69	Mixed IP & OP	Pilkonis	1.1	MI:sex	-1.14 to -0.04
35. PI PD1 :	1.91	Mixed IP & OP	Pilkonis	1.26	MI:sex	-1.12 to -0.17
36. H SUPPOR	0.69	Mixed O/P & sex	S&Evans	1.15	MI:sex	0.03 to 0.88
37. B32T DEP	1.6	patients	Barkham	0.93	MI:sex	-1.27 to -0.07
38. B32T OPE	1.45	patients	Barkham	2.36	MI:sex	0.27 to 1.56
39. H SOCIAB	1.72	SPP2 & CPP	Barkham	1.1	MI:sex	-1.15 to -0.1
40. PI PD1 :	1.75	Students with bpd	Stern et al	1.26	MI:sex	-0.89 to -0.09
41. I32FG :	1.77	Time ltd group	Soldz et	1.16	MI:sex	-1.22 to 0
42. I32HI :	2.32	Time ltd group	Soldz et	1.61	MI:sex	-1.26 to -0.15
43. I32DE :	2	Time-ltd group PD	Soldz et	1.32	MI:sex	-1.33 to -0.03
44. I32FG :	2.3	Time-ltd group PD	Soldz et	1.16	MI:sex	-1.77 to -0.52
45. I32HI :	2.32	Time-ltd group PD	Soldz et	1.61	MI:sex	-1.31 to -0.11
46. PI C1 :	2.1	Mixed IP & OP	Pilkonis	1.15	MI:Viol	-1.46 to -0.44
47. PI PD1 :	1.91	Mixed IP & OP	Pilkonis	1.05	MI:Viol	-1.27 to -0.44
48. PI PD3 :	1.19	Mixed IP & OP	Pilkonis	0.66	MI:Viol	-0.99 to -0.07
49. H SUPPOR	0.69	Mixed O/P & sex	S&Evans	1.05	MI:Viol	0.01 to 0.72
50. I32HI :	1.81	Out-patient brief	Soldz et	1.18	MI:Viol	-1.12 to -0.13

51. I32JK :	1.92	Out-patient brief	Soldz et	1.28	MI:Viol	-1.13 to -0.14
52. I32LM :	2.14	Out-patient brief	Soldz et	1.18	MI:Viol	-1.48 to -0.45
53. HO ASSER	1.86	Out-Patients	Horowitz	1.2	MI:Viol	-1.09 to -0.22
54. HO RESPO	1.81	Out-Patients	Horowitz	1.2	MI:Viol	-1.08 to -0.14
55. HO SOCIA	1.67	Out-Patients	Horowitz	1.15	MI:Viol	-1.01 to -0.03
56. Total127 :	1.48	Out-Patients	Horowitz	1.08	MI:Viol	-0.71 to -0.09
57. B32H ASS	1.87	patients	Barkham	1.12	MI:Viol	-1.4 to -0.11
58. B32T AGG	1.49	patients	Barkham	0.8	MI:Viol	-1.26 to -0.12
59. B32T DEP	1.6	patients	Barkham	0.82	MI:Viol	-1.31 to -0.26
60. B32T OPE	1.45	patients	Barkham	2.29	MI:Viol	0.26 to 1.41
61. H ASSERT	2.08	SPP2 & CPP	Barkham	1.16	MI:Viol	-1.33 to -0.52
62. H SOCIAB	1.72	SPP2 & CPP	Barkham	1.12	MI:Viol	-1.07 to -0.13
63. TOO AGG	1.45	SPP2 & CPP	Barkham	1.02	MI:Viol	-0.84 to -0.02
64. TOO CARI	1.64	SPP2 & CPP	Barkham	1.08	MI:Viol	-0.98 to -0.15
65. TOO DEP :	1.65	SPP2 & CPP	Barkham	1.03	MI:Viol	-1.01 to -0.23
66. Total127 :	1.56	SPP2 & CPP	Barkham	1.08	MI:Viol	-0.75 to -0.21
67. PI C1 :	1.87	Students with bpd	Stern et al	1.15	MI:Viol	-1.37 to -0.07
68. PI C1 :	1.62	Students with bpd	Stern et al	1.15	MI:Viol	-0.92 to -0.03
69. PI PD1 :	1.75	Students with bpd	Stern et al	1.05	MI:Viol	-1.17 to -0.22
70. PI PD1 :	1.48	Students with bpd	Stern et al	1.05	MI:Viol	-0.79 to -0.06
71. PI PD3 :	1.58	Students with bpd	Stern et al	0.66	MI:Viol	-1.46 to -0.39
72. PI PD3 :	1.1	Students with bpd	Stern et al	0.66	MI:Viol	-0.85 to -0.03
73. I32HI :	2.32	Time ltd group	Soldz et	1.18	MI:Viol	-1.62 to -0.65
74. I32JK :	2.05	Time ltd group	Soldz et	1.28	MI:Viol	-1.22 to -0.31
75. I32LM :	2.1	Time ltd group	Soldz et	1.18	MI:Viol	-1.43 to -0.41
76. I32DE :	2	Time-ltd group PD	Soldz et	1.15	MI:Viol	-1.41 to -0.29
77. I32FG :	2.3	Time-ltd group PD	Soldz et	1.42	MI:Viol	-1.43 to -0.34
78. I32HI :	2.32	Time-ltd group PD	Soldz et	1.18	MI:Viol	-1.66 to -0.61
79. I32JK :	1.94	Time-ltd group PD	Soldz et	1.28	MI:Viol	-1.16 to -0.15
80. I32LM :	1.83	Time-ltd group PD	Soldz et	1.18	MI:Viol	-1.21 to -0.09
81. PI PD2 :	1.04	Mixed IP & OP	Pilkonis	1.55	PD:sex	0.1 to 0.91
82. H SOCIAB	1.33	Mixed O/P & sex	S&Evans	1.9	PD:sex	0 to 1.13
83. H SUPPOR	0.69	Mixed O/P & sex	S&Evans	1.57	PD:sex	0.48 to 1.28
84. Total127 :	1.22	Mixed O/P & sex	S&Evans	1.64	PD:sex	0.02 to 0.81
85. I32FG :	1.33	Out-patient brief	Soldz et	2.16	PD:sex	0.26 to 1.4
86. HO INTIM	1.02	Out-Patients	Horowitz	1.59	PD:sex	0.06 to 1.08
87. HO SUBMI	1.16	Out-Patients	Horowitz	1.59	PD:sex	0.01 to 0.84
88. B32H SUP	0.96	patients	Barkham	1.79	PD:sex	0.28 to 1.37
89. B32T OPE	1.45	patients	Barkham	2.42	PD:sex	0.37 to 1.58
90. H SUPPOR	0.91	SPP2 & CPP	Barkham	1.57	PD:sex	0.26 to 1.06
91. PI C2 :	1.12	Students with bpd	Stern et al	1.92	PD:sex	0.32 to 1.29
92. PI PD2 :	0.9	Students with bpd	Stern et al	1.55	PD:sex	0.29 to 1.01
93. PI C1 :	2.1	Mixed IP & OP	Pilkonis	1.21	PD:viol	-1.54 to -0.24
94. PI PD1 :	1.91	Mixed IP & OP	Pilkonis	1.29	PD:viol	-1.14 to -0.09
95. H SUPPOR	0.69	Mixed O/P & sex	S&Evans	1.26	PD:viol	0.12 to 1.03
96. TOO OPEN	1.68	Mixed O/P & sex	S&Evans	1	PD:viol	-1.21 to -0.15
97. IIPRC NC :	1.29	Out patient	R & C	0.44	PD:viol	-1.68 to -0.01
98. I32HI :	1.81	Out-patient brief	Soldz et	0.97	PD:viol	-1.47 to -0.21
99. I32JK :	1.92	Out-patient brief	Soldz et	0.86	PD:viol	-1.66 to -0.45
100.I32LM :	2.14	Out-patient brief	Soldz et	1.28	PD:viol	-1.49 to -0.24
101.I32NO :	1.43	Out-patient brief	Soldz et	0.31	PD:viol	-1.83 to -0.42
102.HO ASSER	1.86	Out-Patients	Horowitz	0.96	PD:viol	-1.44 to -0.37
103.B32H ASS	1.87	patients	Barkham	0.75	PD:viol	-1.92 to -0.32
104.B32T DEP	1.6	patients	Barkham	0.86	PD:viol	-1.41 to -0.07
105.B32T OPE	1.45	patients	Barkham	3.08	PD:viol	0.91 to 2.36
106.H ASSERT	2.08	SPP2 & CPP	Barkham	1.02	PD:viol	-1.58 to -0.55
107.TOO CARI	1.64	SPP2 & CPP	Barkham	1.16	PD:viol	-0.97 to 0
108.TOO DEP :	1.65	SPP2 & CPP	Barkham	1.1	PD:viol	-1.05 to -0.06
109.Total127 :	1.56	SPP2 & CPP	Barkham	1.18	PD:viol	-0.72 to -0.04
110.PI PD1 :	1.75	Students with bpd	Stern et al	1.29	PD:viol	-0.88 to -0.03
111.PI PD2 :	0.9	Students with bpd	Stern et al	1.5	PD:viol	0.15 to 1.05

112.I32HI :	2.32	Time ltd group	Soldz et	0.97	PD:viol	-1.96 to -0.73
113.I32JK :	2.05	Time ltd group	Soldz et	0.86	PD:viol	-1.74 to -0.64
114.I32LM :	2.1	Time ltd group	Soldz et	1.28	PD:viol	-1.44 to -0.2
115.I32NO :	1.41	Time ltd group	Soldz et	0.31	PD:viol	-1.76 to -0.45
116.I32FG :	2.3	Time-ltd group PD	Soldz et	1.5	PD:viol	-1.53 to -0.07
117.I32HI :	2.32	Time-ltd group PD	Soldz et	0.97	PD:viol	-2.01 to -0.68
118.I32JK :	1.94	Time-ltd group PD	Soldz et	0.86	PD:viol	-1.7 to -0.46
119.I32NO :	1.37	Time-ltd group PD	Soldz et	0.31	PD:viol	-1.75 to -0.38

Appendix 15. Sub-scales where significant differences were found for referential non-clinical groups

Scale	Ref. Mean	Referential non clinical	Reference	PhD mean	PhD group	CI
120.B32H_INV	0.91	General	Barkham	1.7	All53	0.47 to 1.1
121.B32H_SOC	1.02	General	Barkham	1.41	All53	0.09 to 0.69
122.B32H_SUP	0.65	General	Barkham	1.38	All53	0.49 to 0.97
123.B32T_OPE	1.74	General	Barkham	2.49	All53	0.47 to 1.04
124.PI_C1 :	1.14	Students w/o bpd	Stern et al	1.44	All53	0.01 to 0.58
125.PI_C1 :	1.06	Students w/o bpd	Stern et al	1.44	All53	0.09 to 0.66
126.PI_C2 :	0.64	Students w/o bpd	Stern et al	1.43	All53	0.49 to 1.09
127.PI_C2 :	0.62	Students w/o bpd	Stern et al	1.43	All53	0.51 to 1.1
128.PI_PD1 :	0.92	Students w/o bpd	Stern et al	1.32	All53	0.16 to 0.65
129.PI_PD1 :	0.88	Students w/o bpd	Stern et al	1.32	All53	0.2 to 0.68
130.PI_PD2 :	0.53	Students w/o bpd	Stern et al	1.34	All53	0.58 to 1.04
131.PI_PD2 :	0.57	Students w/o bpd	Stern et al	1.34	All53	0.51 to 1.03
132.PI_PD3 :	0.46	Students w/o bpd	Stern et al	0.97	All53	0.26 to 0.76
133.B32H_ASS	1.12	General	Barkham	1.68	MI:sex	0.01 to 1.11
134.B32H_INV	0.91	General	Barkham	1.66	MI:sex	0.19 to 1.3
135.B32H_SUP	0.65	General	Barkham	1.32	MI:sex	0.28 to 1.07
136.B32T_AGG	0.84	General	Barkham	1.34	MI:sex	0 to 1
137.B32T_OPE	1.74	General	Barkham	2.36	MI:sex	0.11 to 1.14
138.PI_C1 :	1.06	Students w/o bpd	Stern et al	1.63	MI:sex	0.12 to 1.02
139.PI_C2 :	0.64	Students w/o bpd	Stern et al	1.1	MI:sex	0.03 to 0.89
140.PI_C2 :	0.62	Students w/o bpd	Stern et al	1.1	MI:sex	0.1 to 0.86
141.PI_PD1 :	0.88	Students w/o bpd	Stern et al	1.26	MI:sex	0.04 to 0.73
142.PI_PD2 :	0.53	Students w/o bpd	Stern et al	1.21	MI:sex	0.37 to 0.99
143.PI_PD2 :	0.57	Students w/o bpd	Stern et al	1.21	MI:sex	0.27 to 1.01
144.PI_PD3 :	0.46	Students w/o bpd	Stern et al	1.16	MI:sex	0.31 to 1.08
145.B32H_INV	0.91	General	Barkham	1.42	MI:Viol	0.02 to 0.99
146.B32H_SUP	0.65	General	Barkham	1.13	MI:Viol	0.14 to 0.82
147.B32T_OPE	1.74	General	Barkham	2.29	MI:Viol	0.09 to 1.01
148.PI_C2 :	0.64	Students w/o bpd	Stern et al	1.22	MI:Viol	0.19 to 0.97
149.PI_C2 :	0.62	Students w/o bpd	Stern et al	1.22	MI:Viol	0.25 to 0.95
150.PI_PD2 :	0.53	Students w/o bpd	Stern et al	1.15	MI:Viol	0.32 to 0.91
151.PI_PD2 :	0.57	Students w/o bpd	Stern et al	1.15	MI:Viol	0.24 to 0.92
152.B32H_ASS	1.12	General	Barkham	1.83	PD:sex	0.23 to 1.19
153.B32H_INV	0.91	General	Barkham	1.93	PD:sex	0.53 to 1.51
154.B32H_SOC	1.02	General	Barkham	1.93	PD:sex	0.43 to 1.38
155.B32H_SUP	0.65	General	Barkham	1.79	PD:sex	0.77 to 1.5
156.B32T_CAR	1.25	General	Barkham	1.83	PD:sex	0.1 to 1.06
157.B32T_OPE	1.74	General	Barkham	2.42	PD:sex	0.2 to 1.17
158.PI_C1 :	1.14	Students w/o bpd	Stern et al	1.74	PD:sex	0.19 to 1.01
159.PI_C1 :	1.06	Students w/o bpd	Stern et al	1.74	PD:sex	0.3 to 1.06
160.PI_C2 :	0.64	Students w/o bpd	Stern et al	1.92	PD:sex	0.84 to 1.72
161.PI_C2 :	0.62	Students w/o bpd	Stern et al	1.92	PD:sex	0.9 to 1.71
162.PI_PD1 :	0.92	Students w/o bpd	Stern et al	1.7	PD:sex	0.39 to 1.17
163.PI_PD1 :	0.88	Students w/o bpd	Stern et al	1.7	PD:sex	0.46 to 1.18
164.PI_PD2 :	0.53	Students w/o bpd	Stern et al	1.55	PD:sex	0.72 to 1.31
165.PI_PD2 :	0.57	Students w/o bpd	Stern et al	1.55	PD:sex	0.63 to 1.32
166.PI_PD3 :	0.46	Students w/o bpd	Stern et al	1.1	PD:sex	0.31 to 0.96
167.B32H_INV	0.91	General	Barkham	1.81	PD:viol	0.25 to 1.54
168.B32H_SUP	0.65	General	Barkham	1.22	PD:viol	0.13 to 1.02
169.B32T_OPE	1.74	General	Barkham	3.08	PD:viol	0.76 to 1.92

170.PI C2 :	0.64	Students w/o bpd	Stern et al	1.46	PD:viol	0.25 to 1.38
171.PI C2 :	0.62	Students w/o bpd	Stern et al	1.46	PD:viol	0.31 to 1.36
172.PI PD1 :	0.88	Students w/o bpd	Stern et al	1.29	PD:viol	0.04 to 0.79
173.PI PD2 :	0.53	Students w/o bpd	Stern et al	1.5	PD:viol	0.58 to 1.36
174.PI PD2 :	0.57	Students w/o bpd	Stern et al	1.5	PD:viol	0.48 to 1.38
175.PI PD3 :	0.46	Students w/o bpd	Stern et al	1.08	PD:viol	0.25 to 0.99