

**VIOLENT PERSONALITY DISORDERED  
OFFENDERS DETAINED IN SECURE  
CARE:-  
A TWO PART STUDY.**

**I –REVISITING THE OVER-UNDERCONTROLLED  
TYPOLOGY OF VIOLENT OFFENDERS**

**AND**

**II- EXAMINING RISK ASSESSMENT IN PRACTICE**

**Thesis submitted for the degree of Doctor of Medicine at the University of  
Leicester**

**by**

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## **ABSTRACT**

**BACKGROUND:** Violent personality disordered offenders detained in secure hospital care present 2 major challenges. The first is the provision of appropriate treatment, as the group is heterogeneous. Here, it has been suggested that a typology based on the degree of anger control may be useful. The second is the assessment of their risk to others.

**AIMS:** 1) To revisit the over-undercontrolled typology by examining the evidence for distinguishing criminological and psychopathological features between violent personality disordered subjects whose index offence was their only violent offence (Single Violent offenders, SV) and those who had more than one conviction for violence (Repeat Violent Offenders, RV). 2) To explore the process of risk assessment in respect of these offenders.

**METHODS:** 1) 51 violent personality disordered offenders detained in medium or high secure care, were divided into SV and RV groups and were compared on variables of interest. 2) The process of assessing their risk was examined using a questionnaire administered to members of the patients' multidisciplinary team.

**RESULTS:** 1) In comparison to the RV group, the SV group were less likely to be convicted of non violent offences. They were less antisocial and psychopathic, and showed greater anger and behavioural control. 2) Although perceived agreement as to the risk of future violent behaviour of their patients was high, actual agreement within the MDT was low. Clinicians rated offence and treatment factors as more influential on their risk judgments than other historical and social factors, and structured risk assessment tools.

**CONCLUSIONS:** There were some distinguishing features between the SV and RV groups but these appeared to be due to the undercontrolled nature of the RV group, rather than the overcontrolled nature of the SV group. Risk assessment, as recommended in the research literature was not being carried out in practice.

***For My Father, Anthony Philip D'Silva***

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I have always had the greatest respect and admiration for my father and his academic achievements and it is for this reason that I have dedicated this thesis to him but I would also like to thank my mother Edna, my sister Nina, and my husband Tim for giving me their support and understanding, especially during the writing of this thesis.

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# **INTRODUCTION**

## **INTRODUCTION**

Currently there are a significant number of personality disordered violent offenders detained within secure mental health care (mostly within high security) and this is likely to increase with the development and implementation of the DSPD programme (Dangerous and Severe Personality Disorder Programme (DOH, 1999; DOH, 2000). The aim of this programme is to provide therapeutic input to individuals with personality disorder and an offending history, who are deemed to present a significant risk to the public. The expectation is that, whilst acting to reduce the patients' distress and improve social functioning, treatment will also, and perhaps most importantly in the minds of the politicians, reduce the risk these individuals present to the public.

Patients admitted to secure hospital provision tend to remain there until such a time as it is believed that either they are no longer treatable (that is that treatment is not alleviating or preventing a deterioration in their condition), or more commonly, that their risk of re-offending is reduced so that it can be managed satisfactorily in the community, or in less secure conditions. For the majority of personality disordered patients detained in high security, the latter equates to several years of detention. For example the mean stay for patients discharged from the personality disorder directorate at Rampton hospital is 9.5 years (Evershed, 2005, personal communication).

Thus it seems that there are 2 key challenges facing clinicians working in secure hospital settings. First there is the challenge of providing treatment that is effective in reducing both symptomatology and the risk of re-offending. Second there is the challenge of accurately assessing the level of risk an individual presents to others, so that decisions can be made about his / her readiness for discharge or transfer.

Dell and Robertson (1988), in their study of male patients detained in Broadmoor high secure hospital, suggested that the dilemmas of providing appropriate treatment and judging the level of a risk a patient may present was much more pronounced when considering personality disordered offenders as compared with mentally ill offenders.

For example they found that whereas clinicians had little doubt about the need for their mentally ill patients to be in hospital or about the kind of treatment that would be beneficial to them, they commonly expressed doubts about their non-mentally ill patients (most of whom were detained under the legal category of psychopathic disorder). Whilst the majority of mentally ill patients were receiving treatment in the form of medication, the majority of psychopathic patients were not receiving any treatment apart from being in Broadmoor Hospital.

When making decisions about their mentally ill patients' suitability for discharge, Consultants' decisions seemed linked to their views of the course of their patients' illnesses. Thus if they deemed that their patients' symptoms had improved, then they were likely to regard them as ready for release, irrespective of the severity of their index offence. In contrast, assessment of what constituted 'improvement' for their psychopathic patients was much less concrete: - *'but for the non psychotic, the assessment of improvement was far more problematical. There was usually no obvious mental disturbance to monitor, no clear-cut response to treatment to assess, nor any hard medical criteria by which the men's readiness for release could be judged. Greater maturity, or 'simmering down' were the factors most commonly mentioned by the doctors in relation to their discharge decisions'* (Dell & Robertson, 1988 p126) . In contrast to mentally ill patients, discharge decisions for psychopathic patients were closely related to the seriousness of their index offences. The more serious these were, the less likely psychopathic patients were to be discharged.

Since then there has been a much more concerted effort to implement treatment approaches targeted specifically at personality disordered offenders. Despite this, clinicians may still have difficulty in deciding on appropriate treatment interventions because of heterogeneous nature of the patient group.

One approach to addressing the problem of heterogeneity is to type or group individuals within the larger group, according to similarities on a particular dimension, and then to examine their characteristics. If the groups have markedly different characteristics, then this could lead to tailoring of interventions to match these or the provision of interventions that take them into account. Consider for example Schizophrenia. It is accepted that individuals with this diagnosis are not a homogenous group, thus the same treatment approach may not be applicable to everyone with this diagnosis. One way of investigating and approaching treatment interventions for Schizophrenia has been to group patients together on the basis of similar symptom profiles -for instance those with positive or negative symptoms. Research and clinical experience has shown that patients with positive symptoms (hallucinations and delusions) respond better to medication, and have a better prognosis than those with negative symptoms (lack of volition, apathy). Patients with negative symptoms tend to respond less well to medication, and thus may need a more intensive support package, with rehabilitation being a primary focus.

The impetus for this project came from observations made of a small number of personality disordered violent offenders detained in a medium secure unit. The majority of the patients could be regarded as 'typical' of those admitted to the unit. These individuals had a previous history of violent and other offending. They had diffuse personality difficulties which were evident in the clinical setting and were suited to the structured treatment programmes on the unit. When considering their risk of re-offending, their clinical team was unanimous in their perception of them as being at 'high risk'. In contrast, to these there were a couple of patients who had a markedly different criminal history and clinical

presentation. These 'atypical' patients' index offence was of a serious nature (murder / attempted murder), yet in contrast to their 'typical' peers, they had no prior convictions for violent offences and very few convictions for other offences. They exhibited little overt psychopathology, displayed minimal problematic behaviour in hospital and posed difficulties to their clinical team, both in devising appropriate treatment and in making judgments about their risk of future offending.

Others have also observed this dichotomous presentation. For example in 1966, Megargee introduced his typology of over and undercontrolled hostility which proved useful in explaining the apparent paradox of extreme violence displayed by individuals who had very limited histories of antisocial behaviour (similar to the 'atypical' patients described above). This typology has received some support from later research and has been suggested as a useful approach when considering appropriate treatment interventions (see chapter 1).

Part I of this study sought to re-visit the over-undercontrolled typology as it might apply to violent personality disordered offenders detained in secure care, by examining the evidence for distinguishing criminological and psychopathological features between one time and repeat violent offenders. Individuals whose index conviction was for a violent offence (of sufficient gravity to require their detention in medium or high secure care) were divided into 2 groups – those with previous convictions for violent offences (RV – repeat violent offenders) and those without (SV – single violent offenders). The RV and SV groups were then compared on a number of criminological and psychopathological variables, including personality pathology, anger and institutional behaviour.

Part II of this study sought to examine the process of risk assessment as it happened in practice. This developed from the first part of the study, when I



considered how to investigate my hypotheses that professionals, when making risk judgements about SV offenders (as compared to when making judgements about RV offenders), would be less confident of their judgments and that there would be less agreement within the clinical team. I discovered from my reading of the literature that there was a significant body of research concerned with the process of risk assessment (see chapter 6) and this subsequently led to the development of Part II of this study.

The process of risk assessment is an important issue, because assessing risk of harm to others is central to the job of professionals working in secure settings, not only when considering whether or not a patient is ready for discharge, but through all stages of the patient's care pathway (for example allowing access to off ward activities and making decisions about leave).

Part I of the thesis (Chapters 1-5) is concerned with re-visiting the over-undercontrolled typology of violent offenders and Part II (Chapters 6- 10), with examining risk assessment in practice.

# **PART I**

## **REVISITING THE OVER- UNDERCONTROLLED TYPOLOGY OF VIOLENT OFFENDERS**

# **CHAPTER 1**

## **THE OVER- UNDERCONTROLLED TYPOLOGY OF VIOLENT OFFENDERS**

### **A REVIEW OF THE LITERATURE**

# **CHAPTER 1**

## **THE OVER-UNDERCONTROLLED TYPOLOGY OF VIOLENT OFFENDERS. A REVIEW OF THE LITERATURE**

### **1.1 Introduction**

Megargee, (1966), drew attention to studies that had shown that a large proportion of persons convicted of homicide had no prior history on record of assaultative behaviour (Berg & Fox, 1947; Wolfgang, 1957). Similar results have been found in more recent studies of homicide (Dobash, Dobash, Cavanagh, *et al*, 2002; Machin, Coghill & Levy, 1999). In an attempt to explain the apparent paradox of extreme violence displayed by individuals who had very limited histories of antisocial behaviour, Megargee introduced his concept of over and undercontrolled hostility. He hypothesised that extremely assaultative offenders could be divided into 2 distinct personality types:- a) the 'undercontrolled aggressive' whose inhibitions against aggressive behaviour were low so that he responded with aggression whenever he was frustrated or provoked and b) the 'chronically overcontrolled' who had rigid inhibitions against the expression of anger so that he rarely responded with aggression no matter what the degree of provocation. Megargee suggested that in these latter cases, their instigation to aggression built up over time and eventually summated to a point where it exceeded their defences, resulting in a seriously aggressive or murderous act.

His theory gained some support through his study comparing a group of Extremely Assaultative (EA) and Moderately Assaultative (MA) juvenile offenders (Megargee, 1966). Megargee hypothesised that a group of people who had committed extremely aggressive acts, such as homicide or assault with a deadly weapon, would include some of the chronically overcontrolled type and some of the undercontrolled type. However a group of people who

had engaged in moderately aggressive behaviour, for example fist fights, would probably consist of exclusively undercontrolled types. On this basis he predicted that EA offenders would score lower on measures of aggressiveness and higher on measures of control than MA offenders. Of the 28 predictions made, 22 were in the predicted direction and 14 received statistical support. Megargee and his colleagues subsequently developed a scale derived from the MMPI (Minnesota Multiphasic Personality Inventory), (Dahlstrom, Welsh & Dahlstrom, 1975), to measure overcontrolled hostility – the Overcontrolled Hostility Scale (O-H scale), (Megargee, Cook & Mendelsohn, 1967).

Further studies have compared extremely assaultative (EA) with moderately assaultative (MA) offenders (Blackburn, 1968; Crawford, 1977; Dutton & Kerry, 1999; Echeburua, Fernandez-Montalvo & Amor, 2003; Shumaker & McKee, 2001; Toupin & Morissette, 1990; Warder, 1969). The heterogeneity of these studies makes it difficult to draw any definitive conclusions but on balance, their results are consistent with Megargee's earlier findings. For example, in terms of personality, some studies found that EA offenders were more controlled, introverted and conforming (Blackburn, 1968) and had more DSM-III-R cluster C pathology, but were less antisocial (Dutton & Kerry, 1999) than MA offenders, although one study failed to show any difference between the 2 groups (Warder, 1969). In terms of expression of anger or hostility, some studies found that compared to MA offenders, EA offenders were less likely to direct hostility outwards (Warder, 1969) and were less likely to be disposed to feeling angry, (Echeburua, Fernandez-Montalvo & Amor, 2003) although one study (Crawford, 1977) failed to find any differences between the EA and MA groups on measures of hostility. Finally, some studies found that EA offenders were less likely to have a criminal history compared to MA offenders (Echeburua, Fernandez-Montalvo & Amor, 2003; Toupin & Morissette, 1990). However, whilst these studies lend some support to Megargee's suggestion of a typology, they fail to address it directly given the limitation that the EA groups, according to Megargee, contain *both* over and undercontrolled offenders.

Research more directly addressing the over-undercontrolled typology of violent offenders has developed along 2 main lines: – Firstly there have been a number of studies that have attempted to validate Megargee's typology by comparing groups of 'over' and 'under' controlled offenders categorised as such, either on the basis of their scores on Megargee's O-H scale (Overcontrolled Hostility scale), or on the basis of their criminal and or clinical history. Secondly there have been studies that have attempted to identify distinct groups of violent offenders, using cluster analytic techniques. The findings and limitations of each of these 2 lines of research will now be discussed in turn.

### **1.2 Studies attempting to validate Megargee's Typology by comparing over and undercontrolled offenders**

Studies comparing over and undercontrolled offenders categorised using (1) the O-H scale and (2) criminal and or social history are described in tables 1 and 2 respectively.

**Table 1****Studies comparing over (OC) and under (UC) controlled offenders categorised as such by Megargee's O-H scale**

<b>Study</b>	<b>Subjects</b>	<b>Comparator Variables</b>	<b>Results</b>
<b>White, McAdoo &amp; Megargee, (1973)</b>	<b>North American adolescents (sex and offence type not stated)</b>  <b>38 OC (O-H <math>\geq 18</math>); 37 UC (O-H <math>\leq 11</math>)</b>	<b>7 factors of Cattell's 16PF (16 Personality Factor Questionnaire)</b>	<b>OC offenders were significantly more stable mature, responsible, well organised, conscientious and cautious</b>
<b>Lester, Purdue &amp; Brookhart, (1974)</b>	<b>35 North American male murderers</b>	<b>Zung's Self Rating Depression Scale</b>  <b>Maudsley Personality Inventory</b>	<b>No correlation between O-H score and depression or introversion scores.</b>
<b>White, (1975)</b>	<b>North American adolescents (sex not stated, mixed offences)</b>  <b>60 OC (O-H <math>\geq 18</math>); 60 UC (O-H <math>\leq 11</math>)</b>	<b>Rozenweig's Picture Frustration Study</b>	<b>OC offenders were significantly more intrapunitive and less extrapunitive</b>
<b>Lester &amp; Wright, (1978)</b>	<b>16 North American male murderers</b>	<b>Zung's self rating depression scale</b>  <b>Maudsley Personality Inventory</b>	<b>No correlation between O-H score and depression or introversion scores.</b>
<b>Lane &amp; Kling, (1979)</b>	<b>110 North American male forensic psychiatric patients</b>	<b>Clinical scales and selected experimental scale of MMPI</b>	<b>O-H scores significantly correlated with MMPI scales reflecting rigidity, excessive control, repression of conflicts, ability to delay immediate gratification, and reluctance to express psychiatric symptoms</b>

**Table 1 continued**

<b>Study</b>	<b>Subjects</b>	<b>Comparator variables</b>	<b>Results</b>
<b>Lane &amp; Spruill, (1980)</b>	<p>North American male forensic psychiatric patients</p> <p>20 OC (O-H <math>\geq 18</math> + case record information) 20 UC (O-H <math>&lt; 15</math> + case record information)</p>	<b>Clinical and selected experimental scales of the MMPI</b>	<b>OC offenders scored significantly higher on MMPI scales reflecting repression, denial, conscience, and inhibition of aggression and lower on scales reflecting impulsivity and hostility</b>
<b>Quinsey, Maguire &amp; Varney, (1983)</b>	<p>Canadian male maximum security patients</p> <p>14 OC (O-H T score <math>&gt; / = 70</math>); 18 UC (O – H T score <math>\leq 52</math>)</p>	<b>Fear of Negative Evaluation Scale; Negative Assertion Questionnaire; Provocative Situation Questionnaire; Porteus Q Score, Assertion role plays</b>	<b>OC offenders were significantly less assertive in role plays and the Provocative Situation Questionnaire than UC offenders.</b>
<b>Henderson, (1983)</b>	<p>British male maximum security violent prisoners</p> <p>16 OC (O-H <math>\geq 18</math>); 50 UC (O-H <math>&lt; 18</math>)</p>	<b>Adult Self Expression Scale (ASES); Agression Scale; Social Situation Questionnaire</b>	<b>OC offenders reported significantly less aggression, scored lower on the negative assertion subscale of the ASES and reported significantly less difficulties with controlling their temper and avoiding fights. There were no significant differences in difficulties controlling irritation, expressing anger, disagreeing, saying no and not letting others take advantage.</b>



**Table 1 continued**

<b>Study</b>	<b>Subjects</b>	<b>Comparator variables</b>	<b>Results</b>
<b>Hershorn &amp; Rosenbaum, (1991)</b>	<b>North American wife batterers referred to treatment programme</b>  <b>17 OC (O-H <math>\geq</math>14.5); 24 UC (O-H&lt;14.5)</b>	<b>Conflicts Tactics Scale; Child Report of Parental Behaviour Inventory; Buss Durke Hostility Inventory; income, education, employment; experience of violence in the family of origin, extent of physical violence</b>	<b>OC men were significantly more likely to use severe forms of violence and their mothers were significantly more rejecting. UC men exhibited more frequent violence, and were significantly more likely to have witnessed abuse of their mothers, to fight with others than wives and to be measured as more generally hostile</b>

**Table 2**  
**Studies comparing over (OC) and under (UC) controlled offenders categorised as such by criminal and or clinical history.**

Study	Subjects	Criterion used to classify subjects as OC or UC	Comparator variables	Results
Tupin, Mahar & Smith, (1973)	North American male hospitalised homicide offenders  25 OC – non habitual violent offenders ; 25 UC -habitual violent offenders	Previous history of violent behaviour inside or outside of prison	Demographic, clinical and criminal variables	UC significantly more likely to have frequent fights as a child, to have self reported childhood symptoms and to have a family history of criminality
Dutoit & Duckitt, (1990)	South African male violent prisoners  21 OC; 20 UC	Current offence, criminal history, records of behaviour in prison, social work reports indicating personal and social background and adjustment	16PF, HDQD (Hostility and Direction of Hostility Questionnaire), PFT(Picture Frustration Test)	OC scored significantly lower on acting out hostility, although not on intrapunitive measures of hostility (directing hostility inwards) (HDQD); OC exhibited less direct and destructive responses (PFT), scored higher on measures of ego strength, super ego strength and control and lower on measures of tension and apprehension (16PF)
Verona & Carbonell, (2000)	North American female prisoners  70 once violent (SV); 59 repeat violence (RV)	Number of violent offences	Criminal history, STAXI (State Trait Anger Expression Index) , institutional behaviour	In comparison to the RV group, a significantly higher proportion of the SV group had committed homicide and a significantly lower proportion had a history of non violent offending. No significant differences were found on the STAXI or institutional behaviour

### **Summary of studies attempting to validate Megargee's Typology by comparing under and overcontrolled offenders.**

The marked heterogeneity of the population studied (adolescents, adults, prisoners, patients), criterion used to classify subjects as over or undercontrolled (O-H scale, criminal history, clinical and social information) and the dependent variable measures used (including personality measures, assertion measures, and anger and hostility measures) make it impossible to draw any robust conclusions from these studies.

However, looking more closely at specific dependent variables, the 4 studies investigating personality characteristics, 2 using the 16PF (Dutoit & Duckitt, 1990; White, Mcadoo & Megargee, 1973), and 2 using the MMPI (Lane & Kling, 1979; Lane & Spruill, 1980), gave similar results. Overcontrolled offenders were found to be generally more responsible, conscientious, and cautious; had a tendency to repress or deny conflict; and were less impulsive, hostile, tense and apprehensive. However it should be noted here that the O-H scale was derived from the MMPI, thus one might expect that the O-H scale would correlate with the MMPI to some degree.

Of the 5 studies investigating hostility and anger, most found that overcontrolled individuals expressed less aggression and hostility outwards (Dutoit & Duckitt, 1990; Henderson, 1983; Hershorn & Rosenbaum, 1991; White, 1975), although one did not (Verona & Carbonell, 2000). However, only one found that overcontrolled offenders directed hostility inwards (White, 1975).

Turning to assertion deficits, whilst the 2 studies addressing this reported that they found some assertive deficits in the overcontrolled groups, this was only on one of several assertion measures (Quinsey, Maguire & Varney, 1983) or a subscale of a measure (Henderson, 1983). On most of the measures used there was no difference between over and undercontrolled offenders.

## **Limitations of studies attempting to validate Megargee's Typology by comparing under and overcontrolled offenders.**

### **Validity of The O-H scale**

The O-H scale was used in a number of studies to classify offenders as over or undercontrolled but is this a valid measure of over control? If it is then it should be able to discriminate between those individuals who fit Megargee's 'overcontrolled' criminal and social profile (that is those individuals that have committed a serious violent offence, but who have no previous history of violent behaviour and have led relatively stable lives) from those that fit Megargee's 'undercontrolled' profile (that is individuals that have a history of repeated violent behaviour and have led unstable lives). The author reviewed 8 studies that have examined the discriminative ability of the O-H scale. Of these, 5 found support for the scale's discriminative ability (Dutoit & Duckitt, 1990; Lane & Kling, 1979; Lane & Spruill, 1980; Megargee, Cook & Mendelsohn, 1967; Verona & Carbonell, 2000) and 3 did not (Fisher, 1970; Mallory & Walker, 1972; Salekin, Ogloff, Ley, *et al*, 2002). However, the methodological quality of the studies varied and of the 3 studies that were methodologically superior (used information other than just criminal history and more than one rater to categorise individuals as over and undercontrolled (Dutoit & Duckitt, 1990; Fisher, 1970; Lane & Spruill, 1980), 2 were in support of the discriminative ability of the O-H scale (Dutoit & Duckitt, 1990; Lane & Spruill, 1980) and one was not (Fisher, 1970), although this might have been due to the influence of race on the scale. Even in the case of the studies that found support for the O-H scale, for those studies where it was possible to calculate sensitivity and specificity rates, using a T score cut off of 70 as indicating over control, the scale had high specificity (82 – 100%), (few false positives) but had low sensitivity (38 to 58%), (many false negatives). Thus someone who might have been considered overcontrolled on the basis of their criminal history and other information, may not have been categorised as such using the O-H scale.

Furthermore, some authors (Lang, Holden, Langevin, *et al*, 1987) have questioned whether high scores on the O-H scale are actually reflective of

individuals *lying* about their hostility, as opposed to reflecting truly lowered hostility. Lane and Kling (1979) found that the O-H scale correlated positively with the Lie scale of the MMPI, Lester and Wright (1978) found that O-H scores correlated significantly with the Lie scale on the Maudsley Personality Inventory and Deiker (1974) found that O-H scores were significantly positively correlated with the Lie scale and other scales on the MMPI which were useful indicators of a response set of 'faking good'.

#### Small sample sizes

Many of the studies had small sample sizes which limits the precision of any significant results and increases the chance of the studies being underpowered.

#### Measures of personality pathology

The investigations into personality pathology used Cattell's 16 PF and the MMPI. None addressed the more widely used DSM (Diagnostic and Statistical Manual of Mental Disorders) classification and description of personality pathology.

#### Failure to explore anger indices

Whilst Megargee's theory suggests that overcontrolled individuals control their anger excessively, only one study investigated this directly using measures of anger such as the State Trait Anger Expression Inventory (STAXI), (Spielberger, 1988) which has subscales to measure both anger directed inwards and anger control (Verona & Carbonell, 2000).

**Studies attempting to validate Megargee's Typology by comparing over and undercontrolled offenders**

**Summary Points**

- The studies were markedly heterogeneous and subject to a number of limitations therefore robust conclusions could not be drawn
- Having said this, there was some evidence that in comparison to offenders categorised as undercontrolled, those categorised as overcontrolled
  - were generally more responsible, conscientious and cautious; had a tendency to repress or deny conflict; and were less impulsive, hostile or apprehensive
  - expressed less aggression and hostility outwards
- There was minimal evidence to suggest that offenders categorised as overcontrolled directed anger inwards or had marked assertion deficits
- The studies were subject to a number of limitations including
  - Questionable validity of the O-H scale
  - Small sample sizes
  - Failure to address DSM personality pathology
  - Failure to directly examine anger control using appropriate instruments such as the STAXI

### **1.3 Studies using cluster analysis to delineate groups of violent offenders**

Blackburn, (1971) investigated 56 special hospital, male homicide offenders. All subjects were administered the 13 standard scales and 6 additional scales of the MMPI measuring neuroticism, introversion, control, denial and hostility. Cluster analysis of their scores revealed 4 types of offenders, comprising 80% of the population, labeled as follows: overcontrolled repressor (30%), paranoid aggressive (23%), depressed inhibited (14%) and psychopathic (13%).

The overcontrolled repressor group had a normal profile indicating that members of the group did not see themselves as psychologically deviant. Compared to other groups, they had higher levels of denial and impulse control and low levels of anxiety and hostility. This group was the largest making up 30%.

The paranoid aggressive group showed severe and wide psychopathology with their overall profile being distinctly abnormal. They had elevated scores on 6 of the 13 clinical scales (hypochondriasis, depression, psychopathic deviate, paranoia, psychasthenia, schizophrenia) and had very high levels of anxiety and hostility, higher than in any other group. However, they were also socially anxious and introverted.

The third group, the depressed inhibited, made up 14% of the total sample. Their profile was characterized by 2 abnormal elevations, depression and social introversion, although they tended to score quite highly on most of the other symptom scales with the exception of Ma (hypomania). The group exercised strong levels of impulse control and was socially anxious and introverted.

The final group, comprising 13% of the sample, was labeled the psychopathic group. These individuals had 2 abnormal peaks on their profile – psychopathic

deviate and hypomania, a profile traditionally associated with the psychopathic personality. The group showed a moderate degree of paranoid suspicion but they showed very little neurotic or psychotic symptoms. They were impulsive, extroverted, lacked social anxiety and had fairly high levels of hostility directed outwards.

Blackburn compared these groups on a number of other variables and found that the overcontrolled repressor group tended to be older, were mostly married, and were generally of high intelligence. Few had criminal records and their victims were generally known to them. Most were legally categorised as mentally ill, with a third diagnosed as schizophrenic. The paranoid aggressive group were generally younger and tended to be unmarried with a previous criminal record. They were the least intelligent. Most were categorised as mentally ill with over half diagnosed as schizophrenic. Their victims were strangers or casual acquaintances. The depressed inhibited group was the most intelligent, and members tended to be unmarried. Again the majority were categorised as mentally ill and were diagnosed as schizophrenic. They tended not to have a criminal history. The majority of the psychopathic group was legally categorised under the category of psychopathic disorder and most had a criminal record. The majority of the group was married and in all cases the victim was a member of their family.

Blackburn discussed his findings in the light of Megargee's typology and suggested that the overcontrolled repressor group and the depressed inhibited group corresponded to Megargee's overcontrolled group and that the paranoid aggressive and the psychopathic group corresponded to his undercontrolled group.

He noted that the main finding of interest was that the largest single group consisted of individuals who saw themselves as free from psychological disturbance or weakness and who appeared to be characteristically



conforming, inhibited, and un-aggressive in their behaviour. This begs the question as to why these individuals were admitted to high secure care in the first place!

Subsequent to this there have been several more cluster analytic studies of homicide perpetrators, and of the more inclusive group of violent offenders. A review of these studies by the author showed that the clusters obtained were broadly similar to those of Blackburn as shown in tables 3 and 4.

**Table 3**  
**Cluster analysis studies of homicide offenders**

Study	Subjects	Measures	Blackburn's 1971 Clusters			
			Overcontrolled	Psychopathic	Paranoid Aggressive	Depressed Inhibited
Blackburn, (1971)	56 British male special hospital patients, 46 mentally ill, 10 psychopathic	13 clinical and 6 experimental MMPI scales	Overcontrolled repressor 30%	Psychopathic 13%	Paranoid Aggressive 23%	Depressed Inhibited group 14%
McGurk, (1978)	40 British male prisoners	13 clinical and 6 experimental MMPI scales	Overcontrolled 15%	Psychopathic 32.5%	Paranoid Aggressive 7.5% Disturbed aggressive 35%	Depressed inhibited 10%
Holcomb, Adams & Ponder, (1985)	160 North American male detainees admitted to maximum secure hospital	13 clinical scales of MMPI	Normal 22.5%		Psychotic 25% Depressed 18.8% Hostile 17.5% Disorientated 16.3%	
Kalichman, (1988)	118 North American male prisoners	13 clinical scales of MMPI	Profile 1 38%	Profile 2 22% Profile 3 26%	Profile 4 14%	
Biro, Vuckovic & Djuric, (1992)	112 Vojvodian male prisoners	13 clinical scales of MMPI	Normal 28%	Psychopathic 17%	Hypersensitive aggressive 49% psychotic 5%	

**Table 4**  
**Cluster analysis studies of violent offenders**

Study	Subjects	Measures	Blackburn's 1971 Clusters			
			Overcontrolled	Psychopathic	Paranoid Aggressive	Depressed Inhibited
Blackburn, (1975)	79 British special hospital male patients, P <sup>a</sup>	12 experimental 13 clinical scales of MMPI	Defensive controlled 24%	Primary Psychopathic 19%	Secondary Psychopathic 27%	Depressed Inhibited group 10%
Henderson, (1982)	105 violent British male prisoners	8 experimental scales derived from MMPI	Controlled 39%	Extraverted hostile 25%	Disturbed hostile 25%	Inhibited 11.4%
Blackburn, (1986)	300 male special hospital patients, 144 MI <sup>b</sup> , 115 P, 41 LD <sup>c</sup> .	SHAPS <sup>d</sup> (derived from the MMPI)	Controlled 28%	Primary psychopath 16.3%	Secondary Psychopath 30%	Inhibited 19.7%
White & Heilbrun, (1995)	128 Canadian male forensic psychiatric patients	13 clinical scales of MMPI	cluster 2 34.4%	Cluster 4 15.6%	Cluster 3 28.1%	Cluster 1 21.9%
Blackburn, (1996)	144 male special hospital patients, 97 MI, 42 P, 5 both	SHAPS	Controlled 31.6%	Primary psychopath 22.8%	Secondary Psychopath 23.5%	Inhibited 22.1%

a P = detained under the legal category of psychopathic Disorder; b MI = detained under the legal category of Mental Illness c LD = detained under the legal category of Learning Disability d SHAPS = Special Hospitals Assessment of Personality and Socialisation

The majority of these typology studies cluster analysed subjects on the basis of their MMPI scores, however 2 studies (Blackburn, 1996; Blackburn & Coid, 1999) investigated clusters derived on the basis of DSM personality disorder pathology. These are described in more detail below.

Blackburn (1996), cluster analysed the scores of 144 male mentally disordered offenders in a high security hospital (97, 42 and 5 detained under the legal categories of mental illness, psychopathic disorder and both respectively) on the SHAPS and replicated his previously found 1975 clusters. He labeled the clusters primary (22.8%) and secondary (23.5%) psychopaths, controlled (31.6%) and inhibited (22.1%) (see table 4).

He then examined the MCMI (Millon clinical multi-axial inventory) (Millon, 1983) profiles of these clusters. The MCMI is a self report questionnaire which assesses DSM III personality disorder pathology. He found 4 distinct profiles.

The primary psychopath had high scores on histrionic, narcissistic and antisocial scales but low scores on avoidant, dependent, schizotypal and schizoid. The secondary psychopath had high scores on the avoidant, dependent, schizoid, paranoid, passive aggressive and antisocial scales but had the lowest scores on the compulsive scale. The controlled patients had very few traits of personality disorder but had a peak score on the compulsive scale and the lowest score on the passive aggressive scale. The inhibited patients scored the highest of all groups on the avoidant, schizoid, dependent and schizotypal scales but the lowest on the histrionic, narcissistic and antisocial scales.

Blackburn then conducted a separate cluster analysis of the MCMI scores and found a 5 cluster solution. Three of these 5 clusters were very similar in profile to the MCMI profile of the SHAPS primary psychopathic, controlled and inhibited groups (cluster 1 similar to the primary psychopathic group, cluster 3

similar to the controlled group and cluster 4 similar to the inhibited group). The other 2 clusters (clusters 2 and 5) represented variants of the secondary psychopath. The MCMI clusters did not differ in age but cluster 1 (similar to primary psychopathic group) had a longer length of detention in comparison to clusters 2, 4 and 5). Clusters 3 (similar to controlled group) and 4 (similar to the inhibited group) had the highest proportion of mentally ill offenders (86% and 92%).

Blackburn and Coid (1999) examined 83 violent offenders detained in a maximum security hospital under the category of psychopathic disorder and 81 detained in special units in prisons using the Structured Clinical Interview for DSM III Axis II disorders (SCID-II) (Spitzer & Williams, 1983) and the Psychopathy Checklist Revised (PCL-R) (Hare, 1991).

Cluster analysis of the personality disorder dimensional scores identified 6 diagnostic patterns, labeled as follows: 1) antisocial - narcissistic; 2) paranoid - antisocial; 3) borderline - antisocial - passive aggressive; 4) borderline; 5) compulsive - borderline and 6) schizoid.

Group 1 (22.6%) (antisocial - narcissistic) had a relatively high level of histrionic, passive aggressive, narcissistic and antisocial traits and a low level of schizoid schizotypal, dependent, avoidant and compulsive traits. The most prominent personality disorder categories in this group were antisocial and narcissistic.

Group 2 (15.2%) (paranoid – antisocial) were distinguished by marked schizotypal, schizoid and paranoid traits with prominent antisocial traits but low levels of histrionic and dependent traits. Most met the criteria for paranoid and antisocial personality disorder.

Group 3 (15.9%) (borderline – antisocial - passive aggressive) had the most extreme profile and scored highest on the traits of all categories except schizoid, schizotypal and compulsive. This group was distinguished particularly by avoidant, borderline, dependent, histrionic and passive aggressive traits. The most frequent diagnoses were borderline, antisocial and passive aggressive personality disorder.

The majority of patients within these 3 groups met the criteria for antisocial personality disorder. Few members of the remaining groups met the criteria for this category.

Group 4 (30.5%) (borderline) showed few extreme traits and offenders not meeting criteria for any personality disorder fell into this group (10 patients). The category diagnosed with most frequency was borderline (50% of this group). This group also contained half of those meeting the criteria for dependent PD.

Within Group 5 (7.9%) (compulsive-borderline), 85% met the criteria for compulsive disorder but the group also had high levels of avoidant, schizoid and schizotypal traits. Sixty two percent met the criteria for borderline PD.

Group 6 (7.9%), (schizoid) had the most schizoid traits (85% met the criteria for schizoid PD) and apart from some paranoid and schizotypal features they showed few extreme traits and relatively few co-morbid diagnoses.

The authors found that the categories differed on the mean number of categorical diagnosis obtained with group 3 (borderline-antisocial-passive aggressive) having the highest (5.57), group 1(antisocial-narcissistic), 2(paranoid-antisocial) and 5 (compulsive) having intermediate numbers and groups 4 (borderline) and 6 (schizoid) having the lowest (2.38). In terms of PCL-R scores, the first 3 clusters had significantly higher total scores than the

remaining 3 clusters and had a much higher proportion of psychopaths (76%, 80%, 77% vs 14%, 8%, and 15%).

To summarise, cluster analysis of the DSM III personality disorder criteria sets identified 6 diagnostic patterns. 1) antisocial - narcissistic; 2) paranoid - antisocial; 3) borderline - antisocial - passive aggressive; 4) borderline; 5) compulsive - borderline and 6) schizoid. The majority of patients in clusters 1, 2, and 3 met the criteria for antisocial personality disorder and had PCL-R scores of 30 or above.

The authors compared their results to those clusters obtained by self report measures used in earlier studies (Blackburn, 1986; Blackburn, 1996; Henderson, 1982). They suggested that that the profile of group 1 (antisocial-narcissistic) was conceptually similar to that of the primary psychopath, that groups 2 (paranoid – aggressive) and 3 (borderline-antisocial-passive aggressive) were possibly variants of the secondary psychopath, that group 4 (borderline) was similar to the controlled cluster and that groups 5 (compulsive-borderline) and 6 (schizoid) were possibly similar to the inhibited group.

### **Correlates of clusters**

Similar to Blackburn's 1971 study, many of the authors conducting the studies in tables 3 and 4 compared their clusters on various criminal, behavioural and clinical variables.

Blackburn (1975) found that the primary psychopathic and secondary psychopathic groups were significantly younger at their first offence and primary psychopaths were more likely to be involved in aggressive offences and destructive offences in comparison to the other groups. There were no differences between groups in history of sexual or acquisitive offences.

McGurk (1981) continued his previous work on homicide perpetrators (McGurk, 1978, see table 3) by comparing members of his overcontrolled and depressed inhibited clusters (n=10) with members of his psychopathic, paranoid aggressive and disturbed aggressive clusters (n=30) on a number of variables. He found that the former came from stable backgrounds with no history of previous psychiatric or assaultative behaviour. In prison they reported sick less frequently, committed fewer offences against discipline, made fewer requests to prison governors and were rated by prison officers as more self sufficient and having fewer training needs.

Kalichman, (1988) found that his Profile 1 group (similar to Blackburn's overcontrolled group) had a tendency to know their victim (40%), and were the least likely to have a previous record for a violent offence (36%). Profile 2 (similar to Blackburn's psychopathic group) were the most likely to have committed another violent crime at the time of the homicide (65%), were the most likely to have a conviction for a previous violent offence (62%) and were the least likely to have known their victim (27%). Fifty six percent of Profile 4 (similar to Blackburn's paranoid - aggressive type) had committed another violent offence at the time of the homicide, 50% were acquainted with the victim, and 56% had been previously convicted of a violent crime.

Henderson (1982) compared her 4 clusters of violent British prisoners on a number of social and interpersonal variables items taken from a structured interview and found few significant differences. Of the 20 items, the inhibited cluster were rated significantly higher than all other clusters on the global rating of group difficulty (number of friends and poor group relations), and higher than the extraverted hostile groups and the controlled group on difficulty making friends.

Blackburn (1986) compared his 4 clusters of male special hospital patients on age and legal classification and found that the primary psychopaths were



significantly younger on admission, significantly more of the primary and secondary psychopaths were categorised under the category of Psychopathic Disorder or Subnormality (71%) while significantly more of the controlled and inhibited clusters were detained under Mental Illness (63%). Blackburn noted that whilst both the controlled and inhibited groups reported less hostile and aggressive feelings than the other 2 clusters, the inhibited group did report some aggressive feelings. Considering Henderson's findings that the inhibited group was rated as having more social skills deficits than the other groups, Blackburn raised the possibility that the controlled profile reflected an avoidance or denial of hostile impulses at a cognitive level, whereas the inhibited group may have particular difficulties in the overt expression of anger.

Blackburn's (1996) SHAPS clusters did not differ significantly in age but primary psychopaths had been detained for longer (mean =107.16 months) than secondary psychopaths (mean =54.34 months), and inhibited patients (mean = 46. 70 months). The proportions of the clusters detained under the legal classification of Mental Illness were 48% for primary psychopathic, 63% for secondary psychopathic, 86% for controlled and 74% for inhibited. This was statistically significant.

Blackburn and Coid (1999) compared their clusters on criminal history and found that subjects in the first 3 clusters did not differ from each other in age at first conviction, total convictions or conviction for violence or burglary but did tend to differ from the other 3 groups on these variables, particularly groups 4 and 5. (They tended to have begun their criminal careers at a younger age, to have a higher number of total convictions and to have committed more violent and burglary offences). The authors commented that the typology identified by their study was perhaps associated with different motivations for offending; Groups 1, 2 and 3 were defined by high levels of criminality and antisocial personality disorder and therefore violence in their case might have reflected a more general lack of control or poor socialisation. However, groups 4, 5 and 6

were defined by less pronounced criminality and in this situation violence may have arisen in the context of some situationally specific interpersonal problems

### **Summary of cluster analytic studies**

Cluster analysis of violent offenders (homicide and non homicide offenders) whether in prison or health settings has consistently resulted in 4 broadly similar groups: – a primary psychopathic group (usually called psychopathic or primary psychopathic) -antisocial but lacking anxiety; a secondary psychopathic or disturbed group (usually called paranoid –aggressive or secondary psychopathic) – antisocial but with significant additional psychopathology; and 2 non antisocial groups – one with a relatively normal personality profile (usually termed overcontrolled, controlled or normal), and one characterised by introversion and inhibition (usually called depressed inhibited or inhibited). The former 2 groups have been considered to correspond with Megargee's undercontrolled offenders and the latter 2 with Megargee's overcontrolled offenders.

Although the majority of these studies have used the MMPI to assess personality pathology, 2 (Blackburn, 1996; Blackburn & Coid, 1999) have used measures of DSM personality disorder pathology and have found clusters of psychopathology which are consistent with the groupings described above.

Studies that have compared the different clusters on diagnostic, criminal history and interpersonal functioning variables have found that the controlled and inhibited groups have less criminal history (Blackburn, 1971; Blackburn & Coid, 1999; Kalichman, 1988; McGurk, 1981), are more likely to be categorised as mentally ill (Blackburn, 1971; Blackburn, 1986; Blackburn, 1996; Blackburn & Coid, 1999) and may present with less institutional problems (McGurk, 1981). One study suggested that the inhibited group had more interpersonal and social difficulties in comparison to the other groups (Henderson, 1982).

## **Limitations of Cluster Analytic Studies**

### **Measures of personality pathology**

Most of the investigations used the MMPI, with only 2 studies (Blackburn, 1996; Blackburn & Coid, 1999) addressing the more widely used DSM classification and description of personality pathology.

### **Sample mix**

With the exception of Blackburn's studies (1975; 1999), many of the cluster analytic studies undertaken in hospital have investigated samples with a high proportion of mentally ill offenders and typically found that the majority of individuals in the controlled or inhibited clusters were classified as mentally ill. This questions whether the violent offending of individuals in these clusters, rather than being linked to their personality, actually occurred in the context of a psychotic episode.

## **Cluster Analytic Studies**

### **Summary Points**

- **Cluster analysis of violent offenders has consistently resulted in 4 broadly similar groups**
  - **Primary psychopathic**
  - **Secondary psychopathic**
  - **Controlled**
  - **Inhibited.**
- **Members of the controlled cluster generally have normal personality profiles.**
- **Studies have suggested that controlled and inhibited clusters**
  - **Have a less significant criminal history,**
  - **Are more likely to be categorised as mentally ill**
  - **May present with less institutional problems**
  - **May have more interpersonal problems**
- **The studies were subject to 2 main limitations**
  - **Most of the investigations used the MMPI to assess personality pathology, with only 2 studies addressing the more widely used DSM classification of personality disorder pathology**
  - **Many of the studies undertaken in hospital investigated samples with a high proportion of offenders with a primary diagnosis of mental illness**

## **1.4 Drawing together and implications for treatment**

### **Drawing Together**

Drawing the 2 streams of research together, it would seem that:-

1. In comparison to undercontrolled offenders, overcontrolled offenders (categorised either using the O-H scale or by criminal and or social history) may be more rigid, controlled and conscientious; have a tendency to repress or deny conflict; and may be less impulsive, hostile, tense and apprehensive. They may also have assertion deficits
2. Within violent offenders there are 2 psychopathic and 2 non psychopathic clusters. It appears that the 2 non psychopathic clusters either have either a relatively normal or a socially introverted, inhibited personality profile.
3. There is some evidence to suggest that overcontrolled offenders or non psychopathic clusters express less anger and hostility outwardly, have a less significant criminal history and are more likely to be diagnosed as mentally ill. There is limited evidence to suggest that they present with less institutional problems, and have more interpersonal and social difficulties.

### **Implications for treatment**

Whilst there seems to be some evidence to support Megargee's typology, how does this help when considering treatment of violent offenders? Many authors have advocated using different treatment approaches for each type. For example it has been suggested that treatment for the undercontrolled or psychopathic clusters of offenders should include measures to improve self control and inhibit the acting out of aggressive impulses, to facilitate the learning of non aggressive responses when frustrated and to develop social skills. For overcontrolled or non psychopathic clusters of offenders, psychotherapy aimed at making individuals more aware of their angry feelings, improving their ability to communicate these feelings and assertiveness training

have been recommended (Blackburn, 1986; Hecker & Lunde, 1985; Henderson, 1982; Henderson, 1983; Hershorn & Rosenbaum, 1991; Lane & Spruill, 1980; Megargee, 1966; Quinsey, Maguire & Varney, 1983; Verona & Carbonell, 2000).

Some authors have suggested (Davey, Day & Howells, 2005) that attention needs to be paid to a possible sub division within 'overcontrolled' offenders :- those that do not feel anger, and report themselves as free from anxiety or troublesome feelings, and those that feel anger but direct it inwards and excessively control its outward expression. This has some support from the cluster analytic studies, with the identification of 2 non psychopathic clusters – one controlled or conforming cluster whose members report themselves as free from problems (have a relatively normal personality profile) and the other inhibited cluster whose members are socially introverted and experience considerable negative affect.

Davey, Day and Howells (2005) note that most anger programmes offered to violent offenders attempt to improve control over anger experience and expression with a view to reducing violent or aggressive behaviour that occurs in the context of angry emotion. However a requisite for entry into treatment is the ability of an individual to acknowledge, describe and attempt to modify their internal angry reactions. They comment that if individuals do not experience anger at a conscious level, then they clearly would not be able to access the programme, nor would they see it as particularly relevant. They suggest that for those overcontrolled offenders who experience anger but actively suppress its expression, then treatment should be targeted on decreasing angry ruminations and developing skills in the appropriate expression of anger. They warn that applying the usual anger management programmes to 'overcontrolled' individuals could actually make the situation worse by reinforcing strategies to manage anger, that the individual may be already utilising, but to a pathological level.

### **The over – undercontrolled typology of violent offenders.**

#### **A review of the literature. Summary Points**

- In 1966, Megargee introduced his over- undercontrolled typology of violent offenders to explain the apparent paradox of extreme violence shown by individuals with minimal history of violent or other antisocial behaviour.
- Subsequent to this, there have been 2 broad streams of research that have aimed to investigate the typology further
  - Research comparing groups of offenders categorised as over or undercontrolled on the basis of their scores on Megargee's O-H scale or on the basis of their history (criminal and or social)
  - Research identifying groups of violent offenders using cluster analytic techniques
- The results of these studies have suggested that
  - in comparison to undercontrolled offenders, overcontrolled offenders may be more rigid and conscientious, have a tendency to repress or deny conflict and may be less hostile, tense and apprehensive
  - within violent offenders there are 2 non psychopathic clusters– those with a relatively normal and those with a socially introverted , depressed personality profile
- There is some evidence to suggest that overcontrolled or non psychopathic cluster offenders express less anger and hostility outwardly, have a less significant criminal history and are more likely to be diagnosed as mentally ill. There is limited evidence to suggest that they present with less institutional problems, and have more interpersonal and social difficulties.

# **CHAPTER 2**

## **AIMS AND HYPOTHESES**



## **CHAPTER 2**

### **AIMS AND HYPOTHESES**

Part I of this study sought to re-visit the over-undercontrolled typology as it might apply to violent personality disordered offenders detained in secure care, by examining the evidence for distinguishing criminological and psychopathological features between one time (SV) and repeat (RV) violent offenders. It is important to note at this point, that given the lack of robust empirical findings from previous studies, this study from conception to analysis was exploratory in nature, and thus a number of variables of interest were examined.

The specific aims of the study are outlined below. Where deemed appropriate, hypotheses relating to the aims were made on the basis of existing research or clinical observations. Although all aims and hypotheses were of interest, there were some principle ones which were of greater interest than others- those relating to anger and personality disorder (aims 2 and 4).

#### **Aim 1**

**To compare SV and RV offenders on criminal history**

Hypothesis –In comparison to RV offenders, SV offenders would be less likely to have been convicted of non violent offences.

#### **Aim 2**

**To compare SV and RV offenders on DSM personality disorder pathology**

Hypotheses - The primary hypothesis was that in comparison to RV offenders, SV offenders would be assessed as having less antisocial personality disorder pathology. Secondary hypotheses were that in comparison to RV offenders, the SV group would have

- 1) Less personality disorder pathology overall and/ or
- 2) More schizoid, compulsive and avoidant traits

### **Aim 3**

**To compare SV and RV groups on psychopathic traits.**

Hypothesis – Given that SV offenders had committed only one violent offence, and were predicted to be less likely to commit non violent offences and to have less antisocial personality disorder pathology, it was hypothesized that in comparison to RV offenders, SV offenders would be less psychopathic in terms of their total, factor 1 and factor 2 scores on the PCL-R

### **Aim 4**

**To compare SV and RV groups on anger indices**

Hypotheses - in comparison to RV offenders, it was predicted that SV offenders would

- a. express less anger outwardly *and*
- b. either
  - i. experience less anger *or*
  - ii. direct more anger inwards and / or exert more anger control

### **Aim 5**

**To compare SV and RV groups on institutional behaviour**

Hypothesis – Given that SV offenders had committed only one violent offence and were predicted to express less anger outwardly and to have greater anger control, it was predicted that in comparison to RV offenders, SV offenders would exhibit less institutional misbehaviour.

The difference between the two groups in terms of risk assessment by clinical team members is explored in Part II of the study (Chapter 7, p 129, aim 5)

# **CHAPTER 3**

## **METHODOLOGY**

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 Setting and subjects**

From the start it was anticipated that the numbers in the SV group were going to be low and for this reason it was decided to conduct the study over 2 sites.

The sample was drawn from patients who were current admissions within the Personality Disorder directorate at Rampton High Security Hospital in January 2002 and from patients who had been discharged from, and were current admissions to, the Personality Disorder Unit at Arnold Lodge, Leicester, from the period of February 1999 up to June 2003.

Initially 'violent' offences were taken to encompass both violent and sexual offences and so data were collected on individuals who had committed violent or sexual index offences. However, it was ultimately decided to exclude sex offenders from the analysis. This was in order to make the sample as 'pure' as possible (because sex offenders may be fundamentally different from violent offenders) and because in the literature the concept of the over-undercontrolled typology had been applied almost exclusively to violent (as opposed to sexual) offenders. Therefore the final sample consisted of patients who had committed an index offence of a violent nature (murder, manslaughter, attempted murder, grievous bodily harm, actual bodily harm, common assault).

Following data collection (see below), subjects were categorised as single violent offenders (SV) or repeat violent offenders (RV) depending on their number of convictions for violent offences. Individuals whose index conviction was their only violent conviction were categorised as SV. The remainder were categorised as RV. The 2 groups were then compared on the various criminological and psychopathological variables outlined later.

### **3.2 Power**

The power of a study is the ability of the study to find an effect, if an effect is indeed present in the population from which the sample was drawn. In the case of this study it would be the power to find a difference between the SV and RV groups, if there was a population difference. It is usual to calculate this before a study is started, so that adjustments can be made if necessary, usually to the sample size.

A power calculation was *not* carried out for this study for the following reasons:- Firstly, as pointed out earlier on, this study, from its conception through to analysis was exploratory. The author did not have one particular hypothesis that she wished to test.

Secondly, a calculation if attempted may not have been particularly meaningful / accurate given that it would have necessitated the author to

- a. select one measure or subscale of interest even though she had more than one principle measure of interest (see aims and hypotheses)
- b. know the standard deviation for this measure for this population. In the absence of published norms this would have been difficult
- c. decide the size of effect she expected to find, despite the lack of guidance from previous research
- d. estimate the number of participants in the SV and RV groups, but this was **not** known prior to the study starting.

Thirdly, the author had a finite sample size, thus there was no possibility of increasing it, even if a power calculation had been undertaken.

Finally, the study was explicitly exploratory, not definitive not replicatory, hence any estimates of the SV/RV differences coming from the study would be of

value and would not be presented as confirming a population difference or refuting the existence of a possible population difference

For these reasons a power calculation was not undertaken and it must be understood throughout the thesis that there is a substantial, if uncertain risk, of a type II error, i.e. that “non significant” findings may be failures to find population differences not evidence that there is no population difference. For most contrasts, confidence intervals were used to indicate the precision of estimation of the population difference.

### **3.3 Data collection**

#### **Data source**

All data for the Rampton site were taken from the Rampton DSPD (Dangerous and Severe Personality Disorder) Pilot database. The aim of this government funded pilot was to examine the issue of how best to assess personality disorder, the risk of serious offending and the link between them. The author contributed a proportion of data to this database, including assessments of personality disorder (using the IPDE –see later), and data on institutional behaviour. The database was compiled over the period of August 2001 – August 2002, thus the measures in some cases, were being carried out *several years after* the patients’ admission to hospital. Data on institutional behaviour were collected for the period of January to December 2001.

At the Arnold Lodge site, some was taken from an already existing database containing clinical data collected on patients on and throughout their admission. Other data were collected by the author directly (criminal history and institutional behaviour data). The measures relevant to my project contained within the existing Arnold Lodge database, had originally been collected at the *time of, or soon after* the patients’ admission to the unit. Data on institutional

behaviour were collected for the period of one year from the date of each subject's admission.

## **Variables and Method of Measurement**

### **Criminal history**

These data were obtained from a review of the patient's case notes. For the majority of patients, there was a PNC print out on file (Police National Computer print out of cautions and convictions). For cases where this was absent, information was taken from other sources such as psychiatric or probation reports.

### **Personality Disorder**

This was measured using the IPDE (International Personality Disorder Examination) (Loranger, Sartorius, Andreoli, *et al*, 1994), a semi-structured interview designed to be administered by clinicians to detect all relevant personality disorder diagnostic criteria. It is composed of 2 modules, DSM-III R or DSM IV; and ICD10 which can be administered separately. The instrument is designed for both categorical and dimensional scoring. For categorical scoring, a *definite* diagnosis is rendered when the minimum diagnostic criteria are met. A *probable* diagnosis is rendered when one criterion less than the minimum diagnostic criteria are met. Dimensional scoring involves the summing of individual ratings for each of the personality disorders. It has been shown to have good inter rater reliability for dimensional ratings (ICC 0.86 to 0.93) and a moderate inter rater reliability for categorical ratings (median Kappa = 0.74), (Rogers, 2001). A study of the temporal stability of the measure found a moderate consistency for categorical diagnoses (Kappa 0.65-0.48) and a high consistency for dimensional ratings (ICC-0.79) (Loranger, Sartorius, Andreoli, *et al*, 1994) . With regard to validity, Loranger (1999) described the lack of a gold standard as a major limitation to establishing the validity of the IPDE, however he reported '*it was the opinion of most of the clinicians who*

*participated in the field trial that the IPDE was a useful and essentially valid method of assessing personality disorders for research purposes' .*

At the Rampton site, the DSM-IV version was used and at the Arnold Lodge site, the DSM – IIIR version was used. A comparison of The DSM –IV and DSM –III R categories was undertaken (see table 5) and it was judged they were sufficiently similar for the data from either version to be combined.



**Table 5**  
**Comparison between DSM IIIR and DSM IV criteria.**

Personality disorder category	Number of traits			Differing traits	
	DSM III R	DSM IV	Same <sup>a</sup>	DSM III R	DSM IV
Paranoid	7	7	7	N/A	N/A
Schizoid	7	7	6	<ul style="list-style-type: none"> <li>• Rarely if ever experiences strong emotions</li> </ul>	<ul style="list-style-type: none"> <li>• Takes pleasure in few, if any activities</li> </ul>
Schizotypal	9	9	9	N/A	N/A
Antisocial Adult	10	7	5	<ul style="list-style-type: none"> <li>• Unable to sustain consistent work behaviour</li> <li>• Repeated failure to honour financial obligations</li> <li>• Driving while intoxicated or recurrent speeding</li> <li>• Inability to function as a responsible parent</li> <li>• No totally monogamous relationship</li> </ul>	<ul style="list-style-type: none"> <li>• Employment or financial responsibility</li> <li>• Reckless disregard for safety of self and others</li> </ul>
Childhood	12	15	12		<ul style="list-style-type: none"> <li>• Often bullied, threatened or intimidated</li> <li>• Broke into the house, building or car</li> <li>• Often stayed out at night</li> </ul>

Table 5 continued

Personality disorder category	Number of traits			Differing traits	
	DSM III R	DSM IV	Same <sup>a</sup>	DSM III R	DSM IV
Borderline	8	9	8		<ul style="list-style-type: none"> <li>Paranoid ideation and dissociative symptoms</li> </ul>
Histrionic	8	8	6	<ul style="list-style-type: none"> <li>Constantly seeks reassurance, approval or praise</li> <li>Self centred, cannot delay gratification</li> </ul>	<ul style="list-style-type: none"> <li>Suggestibility</li> <li>Considers relationships to be more intimate than they are</li> </ul>
Narcissistic	9	9	8	<ul style="list-style-type: none"> <li>Reacts to criticism with rage, shame and humiliation</li> </ul>	<ul style="list-style-type: none"> <li>Arrogant, haughty</li> </ul>
Avoidant	7	7	2	<ul style="list-style-type: none"> <li>Easily hurt by criticism or disapproval</li> <li>No close friends or confidants</li> <li>Reticent in social situations</li> <li>Fears being embarrassed</li> <li>Exaggerates difficulties, dangers or risks</li> </ul>	<ul style="list-style-type: none"> <li>Restraint within interpersonal relationships</li> <li>Fear of rejection in social situations</li> <li>Inhibited in new interpersonal situations</li> <li>Avoids personal risks or new activities</li> <li>View self as inept, unappealing, inferior</li> </ul>
Dependent	9	8	8	<ul style="list-style-type: none"> <li>Easily hurt by criticism or disapproval</li> </ul>	
Obsessive Compulsive	9	8	7	<ul style="list-style-type: none"> <li>Indecisiveness</li> <li>Restricted expression of affection</li> </ul>	<ul style="list-style-type: none"> <li>Shows rigidity and stubbornness</li> </ul>

<sup>a</sup> Same = number of traits that are the same in the DSM-III-R and DSM-IV versions for each personality disorder category

### Psychopathy

This was assessed using the Hare Psychopathy Checklist Revised – PCL-R (Hare, 1991) This is a 20 item instrument rated from a semi structured interview and file review. The total dimensional score is said to represent the degree to which an individual matches the prototypical psychopath with a score of 30 and above in North America taken as the cut off to determine whether or an individual is a 'psychopath'. Although up until recently a score of 25 had been taken to be the 'cut off' for psychopathy in the UK (see Cooke & Michie, 1999), recent research has suggested that it may be as high as 28 (Cooke, Michie, Hart, *et al*, 2005). It has been traditionally reported to have 2 underlying correlated dimensions:- factor 1- encompassing interpersonal and affective traits and factor 2-encompassing traits reflecting social deviancy (Hare, Harpur, Hakstian, *et al*, 1990; Harpur, Hare & Hakstian, 1989). However more recently a 3 (Cooke & Michie, 2001) and 4 factor model (Hare & Neumann, 2005) have been suggested. It has been shown to be reliable in both correctional and mental health settings (Hare, Clark, Grann, *et al*, 2000) and to predict both general and violent recidivism (Hare, Clark, Grann, *et al*, 2000). High levels of psychopathic traits have been associated with poor treatment response (see D'Silva, Duggan and McCarthy, (2004) for a review).

### Anger

Anger indices were measured using selected scales from Spielberger's State-Trait Anger Expression Inventory (STAXI). This is a self report questionnaire which measures the intensity of anger as an emotional state (State Anger), the disposition to experience angry feelings as a personality trait (Trait Anger), and how anger is expressed and controlled (see table 6). At Arnold Lodge, the earlier version - STAXI (Spielberger, 1988) was used whereas at the Rampton site, the revised version STAXI- 2 (Spielberger, 1999) was used. Because the various scales and subscales that were selected for use in the study (see table 6) were either the same (Trait anger, Anger Expression Out, Anger Expression In) or very similar in both versions (the Anger Control Out subscale in STAXI –

2 is identical to the Anger Control subscale of the STAXI apart from one question), the results at each site were combined. Normative data are available for the STAXI-2 for normal adults and psychiatric patients of both sexes. The STAXI –2 has been shown to have concurrent validity with other measures of anger (Spielberger, 1999).

**Table 6**  
**Scales of STAXI / STAXI-2 used in the study**

<b>STAXI / STAXI – 2 scale</b>	<b>Description of scale</b>
<b>Trait Anger (T-ang)</b>	<b>Measures how often angry feelings are experienced over time</b>
<b>2 subscales:-</b>	
<b>Angry Temperament (T-ang/T)</b>	<b>Measures the disposition to experience anger without specific provocation</b>
<b>Angry Reaction(T-ang/R)</b>	<b>Measures the frequency that angry feelings are experienced in situations that involve frustration and /or negative evaluations</b>
<b>Anger Expression Out (AX-O)</b>	<b>Measures how often angry feelings are expressed in verbally or physically aggressive behaviour</b>
<b>Anger Expression In (AX-I)</b>	<b>Measures how often angry feelings are experienced but not expressed (suppressed)</b>
<b>Anger Control (STAXI – Anger Control; STAXI-2 - Anger Control out)</b>	<b>Measures how often a person controls the outward expression of angry feelings</b>

#### Institutional Behaviour

Information on the institutional behaviour of patients is gathered routinely at both sites through their 'incident monitoring' systems. Descriptions of incidents are then retained electronically. These descriptions were reviewed and coded as follows: -

1. Threatening behaviour (verbal abuse / making threats),
2. Physically violent behaviour (attempted / actual)

3. Damage to property
4. Self harm (threats/ actual)
5. Seclusion episodes

Ideally, to prevent the occurrence of possible bias, all the data should have been collected by individuals independent to the author, who were blind to the study hypotheses. This was the case for most variables, excepting criminal history data from the Arnold Lodge site, some personality disorder assessments (IPDE) at the Rampton site, and institutional behaviour data at both sites which were collected by the author. Division into the SV and RV groups occurred after all the data had been collected and entered into an SPSS database.

### **3.4 Combining two populations**

The sample was made up of a combination of patients from 2 populations – those admitted to a high secure and those admitted to a medium secure hospital. This was done to maximise sample size given that it was envisaged that the SV patients would be few in number (as was proven to be the case). However, before combining the 2 data sets, the Arnold Lodge and the Rampton sites were compared on the main dependent variables, to gain an estimate of the similarity of the 2 samples. Table 7 shows that the Arnold Lodge sample had a significantly higher proportion of patients diagnosed with a definite or probable personality disorder (100% vs. 67.7 %,  $X^2 = 5.96$ ,  $p=0.015$ ) and Arnold Lodge subjects were significantly more angry (mean trait anger 22.18 vs. 16.35,  $U=85.000$ ,  $p=0.006$ ). However there were no significant differences between the 2 samples in terms of criminal history, psychopathy or institutional misbehaviour.

**Table 7**

**Comparison of the Arnold Lodge and Rampton sub samples on the main dependent variables**

Variables	Arnold Lodge			Rampton			p <sup>d</sup>
Criminal history							
	m <sup>a</sup>	s.d <sup>b</sup>	med <sup>c</sup>	m <sup>a</sup>	s.d <sup>b</sup>	med <sup>c</sup>	
Age at first offence	18.44	4.42	17.00	16.85	6.34	16.00	0.25
Number of offences before 18	12.00	18.66	1.00	6.50	8.76	3.00	1.00
Total number of offences	23.33	22.87	16.00	17.23	15.95	12.50	0.48
Personality Disorder Pathology							
Any definite or probable PD	100%			67.7%			0.02*
Anger measures							
	m	s.d	med	m	s.d	med	
Trait anger	22.18	6.63	21.00	16.35	5.26	14.50	0.01*
Psychopathy							
	m	s.d	med	m	s.d	med	
PCL-R total score	17.54	5.46	18.00	18.38	7.86	18.95	0.79
Institutional Misbehaviour							
Any incident within 1 year	60%			42.5%			0.64

a m=mean; b s.d =standard deviation; c med = median; d p=statistical probability; \* = statistically significant result

In addition, as already discussed in section 3.2.1, the dependent variables collected, whilst the same for each sub sample, pertained to a different time in the patients care pathway, depending on the hospital site. For Arnold Lodge patients this was at the time of, and in the year following, admission. For Rampton patients this was at the time of the study which for many patients may have been several years after their admission (mean length of admission of Rampton patients at time of study 11.07 yrs , s.d 9.47, range 2 -38)

The differences between the 2 sub samples in relation to some of the key comparator variables and in relation to the time of data collection gave rise to considerable debate as to whether or not they should be combined and analysing them separately was considered. However this would have led to a reduction in an already small sample size, thus affecting the power of the study.

Given that an *equal* proportion of Rampton and Arnold Lodge patients were in both the SV and RV groups (see tables 8 and 12), it was eventually decided to combine the 2 sites, as originally proposed, on the basis that any differences between the patients at the 2 sites would be equally represented in the SV and RV groups and therefore should not greatly influence the outcome of the comparison of the SV and RV groups.

### **3.5 Ethical approval and consent**

At the Rampton site, Ethical approval was obtained from the Rampton Hospital Ethics Committee. This committee did not require the patients' consent to be obtained (presumably because the author was accessing already anonymised data from the DSPD database).

At the Arnold Lodge site, Ethical approval was obtained from the North Nottinghamshire Local Research Ethics Committee. In this case, the author was required to obtain the patients' informed consent. All patients who had been discharged or were current in patients of the PDU at Arnold Lodge (37) were informed of the project and asked to give their consent by letter. Twenty eight agreed to take part. Of these, only those with an index offence of violence were included in the final sample (n=11).

### **3.6 Analysis plan**

Given the exploratory nature of the study, there was no single primary aim or between groups test. However, as already described in chapter 2, there were some principle hypotheses of greater interest than others- those relating to anger and personality disorder (see chapter 2, aims 2 and 4). The analysis plan is set out below.

<b>Aim</b>	<b>Null hypothesis</b>	<b>Statistical test</b>
<b>1. To compare SV and RV offenders on criminal history</b>	<b>No difference in the proportion of SV and RV groups committing non violent offences</b>	<b>Chi squared</b>
<b>2. To compare SV and RV offenders on DSM personality pathology</b>	<b>No difference between SV and RV groups at category or trait level</b>	<b>Categorical data – Chi squared; non categorical data- T test or Mann Whitney U Test depending on distribution.</b>
<b>3. To compare SV and RV groups on psychopathic traits</b>	<b>No difference between SV and RV groups on total, factor 1 and factor 2 PCL-R scores</b>	<b>T test or Mann Whitney U Test, depending on distribution.</b>
<b>4. To compare SV and RV groups on anger indices</b>	<b>No difference between SV and RV groups on anger indices</b>	<b>T test or Mann Whitney U Test, depending on distribution.</b>
<b>5. To compare SV and RV groups on institutional behaviour</b>	<b>No difference between SV and RV groups in proportion receiving reports for incidents</b>	<b>Chi squared</b>

#### **Multiple statistical tests.**

It was acknowledged that undertaking multiple comparisons would increase the risk of spurious statistically significant findings. In this situation some people recommend reducing the test wise alpha. One approach to this is the Bonferroni correction. However, that applies most clearly to data trawling



exercises and the Bonferroni correction itself is only applicable if all dependent variables are correlated, hence this approach was not used and the author had to accept that the overall alpha would be higher than 0.05.

### **3.7 Statistical analyses**

The data were analysed using the statistical package SPSS. Differences between groups for categorical variables were estimated using Chi squared tests and where appropriate Odds Ratios with 95% confidence intervals were also calculated. The remaining, non categorical data were skewed therefore non parametric tests (Mann Whitney U test for 2 independent groups) were used for hypothesis testing. Where deemed appropriate, confidence intervals for the difference between means were also calculated, (despite the data not being normally distributed) because they give a good indication of the precision of the estimation of the difference between the 2 groups (Gardner & Altman, 1986).

# **CHAPTER 4**

## **RESULTS**

## CHAPTER 4

### RESULTS

#### 4.1 Sample characteristics

The sample was made up of 51 subjects, 19 SV (single violent offenders), and 32 RV (repeat violent offenders). The proportions of Arnold Lodge and Rampton patients in the RV group were approximately equal to the proportions of Arnold Lodge and Rampton patients in the SV group (see table 8).

**Table 8**  
The proportion of patients from each hospital site in the RV and SV groups

Hospital site	RV (n=32)		SV (n= 19)	
	n	%	n	%
Arnold Lodge	7	22%	4	21%
Rampton	25	78%	15	79%

The demographics of the sample are shown in table 9. The mean age of the sample was 38, the vast majority were Caucasian, and single. There were no significant differences between the SV and RV groups.

**Table 9**  
Demographics of the sample

Demographics	Total sample (n=51)		RV (n=32)		SV (n= 19)	
Mean age (s.d.)	38.53	(10.84)	37.81	(10.64)	39.74	(11.35)
Ethnic group						
Caucasian	48	94%	30	94%	18	95%
Other	3	6%	2	6%	1	5%
Marital Status						
Single	38	75%	24	75%	14	74%
Married	3	6%	2	6%	1	5%
Widowed	2	4%	0	0%	2	11%
Divorced	8	16%	6	19%	2	11%

The index offences of the sample are shown in table 10.

**Table 10**  
**Index offences of the SV and RV groups.**

Type of index offence	RV (n=32)		SV (n=19)	
	n	%	n	%
<b>Murder</b>	2	6%	4	21%
<b>Manslaughter</b>	4	13%	8	42%
<b>Attempted murder</b>	4	13%	5	26%
<b>GBH</b>	12	38%	0	0%
<b>ABH</b>	10	31%	2	11%

The SV group were significantly more likely to have been convicted of a serious violent index offence (murder, manslaughter and attempted murder) than the RV group (89.5% vs. 31.3%,  $X^2 = 11.75$ ,  $p=0.001$ , OR= 12.5, 95% CI 2.4 – 62.5).

Before going on to compare the groups, it is important to note that for each of the comparator variables, the numbers of subjects in the RV and SV groups were slightly different, depending on the number of patients for whom data on the variable of interest was available (see table 11) However data were available for at least 80 % of subjects, for every comparison made.

**Table 11**  
**Subject numbers for each of the comparisons undertaken.**

Variable	Whole Sample (n=51)		RV (n=32)		SV (n=19)	
	n <sup>a</sup>	%	n <sup>a</sup>	%	n <sup>a</sup>	%
<b>Criminal offending</b>	51	100%	32	100%	19	100%
<b>DSM Personality disorder</b>	42	82%	28	88%	14	73%
<b>Anger</b>	45	88%	27	84%	18	95%
<b>Psychopathy</b>	43	84%	28	88%	15	79%
<b>Incidents</b>	45	88%	28	88%	17	90%

<sup>a</sup> = number of patients for whom on the variable of interest was available

Table 12 shows that for each comparison made, the proportions of Arnold Lodge and Rampton patients in the RV group were approximately equal to the proportions of Arnold Lodge and Rampton patients in the SV group

**Table 12**  
The proportions of Arnold Lodge and Rampton patients in the RV and SV groups, for each comparison

Variable	RV				SV			
	Arnold Lodge		Rampton		Arnold Lodge		Rampton	
	n	%	n	%	n	%	n	%
Criminal offending	7	22%	25	78%	4	21%	15	79%
DSM Personality disorder	7	25%	21	75%	4	29%	10	71%
Anger	7	26%	20	74%	4	22%	14	78%
Psychopathy	7	25%	21	75%	4	27%	11	73%
Incidents	3	11%	25	89%	2	12%	15	88%

## 4.2 Criminal history

The offending history of the RV and SV groups is shown in table 13.

**Table 13**  
Offending history of the RV and SV groups

	RV			SV			Mann-Whitney U P <sup>d</sup>		95% CI <sup>e</sup>
	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>			
Age at first offence	15.13	3.12	15	20.26	8.00	17	160	0.01	-8.33; -1.92
Number of offences before 18	10.90	12.94	8	2.16	3.75	1	136	0.02	2.59; 14.89
Total number of offences	24.57	18.09	19	8.53	10.25	3	107	<0.01	6.86; 25.22

a m=mean; b s.d. = standard deviation; c med =median; d p=statistical probability; e 95% CI = 95% CI for the difference between the means

As would be expected (given that they had been selected on the basis that they had been convicted of only one violent offence), the SV group had a significantly lower number of total convictions compared to the RV group. The SV group was also found to be significantly older at the time of their first offence and to have significantly fewer juvenile convictions.

Table 14 shows the non violent offending of the RV and SV groups

**Table 14**  
Non violent offending of the RV and SV groups.

	RV (n=32)		SV (n=19)		Pearson's Chi-Square		Odds Ratio	
	n	%	n	%	$\chi^2$	p <sup>b</sup>	OR	95% CI <sup>e</sup>
<b>Theft and kindred offences</b>	26	81%	8	42%	8.22	<0.01*	5.96	1.67; 21.25
<b>Robbery</b>	8	25%	0	0%	5.63	0.02*	_ <sup>d</sup>	_ <sup>d</sup>
<b>Drug offences</b>	3	9%	1	5%	_ <sup>c</sup>	1.00	1.86	0.18; 19.30
<b>Offensive weapons</b>	12	38%	0	0%	9.32	<0.01*	_ <sup>d</sup>	_ <sup>d</sup>
<b>Sexual offences</b>	10	31%	3	16%	1.50	0.22	2.42	0.57; 10.25
<b>Criminal negligence <sup>a</sup></b>	3	9%	1	5%	_ <sup>c</sup>	1.00	1.86	0.18; 19.30
<b>Fraud and kindred offences</b>	7	22%	3	16%	0.28	0.60	1.49	0.34; 6.63
<b>arson</b>	4	13%	1	5%	_ <sup>c</sup>	0.64	2.57	0.27; 24.9
<b>Obstruction of justice /perjury</b>	8	25%	0	0%	5.63	0.02*	_ <sup>d</sup>	_ <sup>d</sup>
<b>Criminal damage / vandalism</b>	22	69%	9	47%	2.29	0.13	2.44	0.76; 7.88

a Criminal Negligence includes major driving offences, e.g. drink driving, death by dangerous driving; b p=statistical probability; c More than 25% of cells had an expected count of less than 5, therefore Fisher's Exact Test used; d OR could not be calculated because of 0 SV offenders committing the offence in question; e 95% CI = 95% CI for the OR \* = statistically significant

A lower proportion of the SV group had been convicted of each non violent offence type compared to the RV group This was statistically significant for theft and kindred offences, robbery, possession of an offensive weapon, and obstruction of justice /perjury.

### 4.3 DSM personality disorder pathology

IPDE assessment results were available for 28 (87.5%) of the RV group and 14 (73.7%) of the SV group. The personality disorder pathology of the 2 groups is shown in tables 15, 16 and 17)

**Table 15**  
**Definite personality disorder categories of the RV and SV groups using the IPDE**

	RV (n=28)		SV (n=14)		Pearson's Chi-Square		Odds Ratio	
	n	%	n	%	X <sup>2</sup>	p <sup>b</sup>	OR	95% CI <sup>d</sup>
<b>Any</b>	<b>20</b>	<b>71%</b>	<b>10</b>	<b>71%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Paranoid</b>	<b>3</b>	<b>11%</b>	<b>1</b>	<b>7%</b>	<b>a</b>	<b>1.00</b>	<b>1.56</b>	<b>0.15; 16.39</b>
<b>Schizoid</b>	<b>1</b>	<b>4%</b>	<b>0</b>	<b>0%</b>	<b>a</b>	<b>1.00</b>	<b>c</b>	<b>c</b>
<b>Schizotypal</b>	<b>1</b>	<b>4%</b>	<b>0</b>	<b>0%</b>	<b>a</b>	<b>1.00</b>	<b>c</b>	<b>c</b>
<b>Antisocial</b>	<b>12</b>	<b>43%</b>	<b>2</b>	<b>14%</b>	<b>3.43</b>	<b>0.06</b>	<b>4.50</b>	<b>0.84; 23.81</b>
<b>Borderline</b>	<b>7</b>	<b>25%</b>	<b>1</b>	<b>7%</b>	<b>1.93</b>	<b>0.17</b>	<b>4.32</b>	<b>0.48; 40.00</b>
<b>Histrionic</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Narcissistic</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Avoidant</b>	<b>2</b>	<b>7%</b>	<b>4</b>	<b>29%</b>	<b>a</b>	<b>0.16</b>	<b>0.19</b>	<b>0.03; 1.22</b>
<b>Dependent</b>	<b>1</b>	<b>4%</b>	<b>1</b>	<b>7%</b>	<b>a</b>	<b>1.00</b>	<b>0.48</b>	<b>0.03; 8.33</b>
<b>Obsessive Compulsive</b>	<b>2</b>	<b>7%</b>	<b>0</b>	<b>0%</b>	<b>a</b>	<b>0.55</b>	<b>c</b>	<b>c</b>
<b>NOS</b>	<b>2</b>	<b>7%</b>	<b>4</b>	<b>29%</b>	<b>a</b>	<b>0.16</b>	<b>0.19</b>	<b>0.03; 1.22</b>

a More than 25% of cells had an expected count of less than 5, therefore Fishers Exact Test used; b p=statistical probability; c OR could not be calculated because of 0 SV offenders meeting diagnostic criteria; d 95% CI = 95% CI for the OR



**Table 16**

**Probable or definite personality disorder categories of the RV and SV groups, using the IPDE**

	RV (n=28)		SV (n=14)		Pearson's Chi-Square		Odds Ratio	
	n	%	n	%	X <sup>2</sup>	p <sup>b</sup>	OR	95% CI <sup>d</sup>
<b>Any</b>	<b>22</b>	<b>79%</b>	<b>10</b>	<b>71%</b>	<b>0.26</b>	<b>0.61</b>	<b>1.46</b>	<b>0.34; 6.36</b>
<b>Paranoid</b>	<b>5</b>	<b>18%</b>	<b>1</b>	<b>7%</b>	<sup>a</sup>	<b>0.65</b>	<b>2.82</b>	<b>0.30; 27.03</b>
<b>Schizoid</b>	<b>1</b>	<b>4%</b>	<b>1</b>	<b>7%</b>	<sup>a</sup>	<b>1.00</b>	<b>0.48</b>	<b>0.03; 8.33</b>
<b>Schizotypal</b>	<b>2</b>	<b>7%</b>	<b>1</b>	<b>7%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Antisocial</b>	<b>16</b>	<b>57%</b>	<b>2</b>	<b>14%</b>	<b>7.00</b>	<b>0.01*</b>	<b>8.00</b>	<b>1.50; 43.50</b>
<b>Borderline</b>	<b>10</b>	<b>36%</b>	<b>2</b>	<b>14%</b>	<b>2.10</b>	<b>0.15</b>	<b>3.33</b>	<b>0.62; 17.68</b>
<b>Histrionic</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Narcissistic</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Avoidant</b>	<b>2</b>	<b>7%</b>	<b>4</b>	<b>29%</b>	<sup>a</sup>	<b>0.16</b>	<b>0.19</b>	<b>0.03; 1.22</b>
<b>Dependent</b>	<b>1</b>	<b>4%</b>	<b>1</b>	<b>7%</b>	<sup>a</sup>	<b>1.00</b>	<b>0.48</b>	<b>0.03; 8.33</b>
<b>Obsessive Compulsive</b>	<b>2</b>	<b>7%</b>	<b>0</b>	<b>0%</b>	<sup>a</sup>	<b>0.55</b>	<sup>c</sup>	<sup>c</sup>
<b>NOS</b>	<b>2</b>	<b>7%</b>	<b>4</b>	<b>29%</b>	<sup>a</sup>	<b>0.16</b>	<b>0.19</b>	<b>0.03; 1.22</b>

<sup>a</sup> More than 25% of cells had an expected count of less than 5, therefore Fishers Exact Test used; <sup>b</sup>=statistical probability; <sup>c</sup> OR could not be calculated because of 0 SV offenders meeting diagnostic criteria.; <sup>d</sup> 95% CI = 95% CI for the OR; \* = statistically significant

**Table 17**  
**Personality disorder trait pathology of the RV and SV groups, using the IPDE**

	RV (n=28)			SV (n=14)			Mann–Whitney U		95% CI <sup>e</sup>
	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	U	p <sup>d</sup>	
<b>Total traits</b>	<b>17.0</b>	<b>9.58</b>	<b>17.0</b>	<b>12.64</b>	<b>8.39</b>	<b>12.0</b>	<b>144.0</b>	<b>0.17</b>	<b>-1.73; 10.45</b>
<b>Cluster A traits</b>									
<b>Paranoid</b>	<b>1.18</b>	<b>1.52</b>	<b>1.0</b>	<b>0.57</b>	<b>1.34</b>	<b>0.0</b>	<b>136.5</b>	<b>0.08</b>	<b>-0.36; 1.57</b>
<b>Schizoid</b>	<b>0.68</b>	<b>0.98</b>	<b>0.0</b>	<b>0.79</b>	<b>0.98</b>	<b>0.5</b>	<b>181.0</b>	<b>0.70</b>	<b>-0.76; 0.54</b>
<b>Schizotypal</b>	<b>0.93</b>	<b>1.18</b>	<b>0.0</b>	<b>0.71</b>	<b>0.73</b>	<b>1.0</b>	<b>191.0</b>	<b>0.86</b>	<b>-0.48; 0.91</b>
<b>Total cluster A</b>	<b>2.78</b>	<b>2.78</b>	<b>2.0</b>	<b>2.07</b>	<b>2.34</b>	<b>1.5</b>	<b>166.5</b>	<b>0.42</b>	<b>-1.03; 2.46</b>
<b>Cluster B traits</b>									
<b>Antisocial</b>	<b>7.46</b>	<b>3.71</b>	<b>7.5</b>	<b>4.14</b>	<b>4.09</b>	<b>3.0</b>	<b>95.5</b>	<b>0.01*</b>	<b>0.78; 5.86</b>
<b>Borderline</b>	<b>2.93</b>	<b>2.31</b>	<b>3.0</b>	<b>1.64</b>	<b>1.56</b>	<b>1.5</b>	<b>131.5</b>	<b>0.08</b>	<b>-0.11; 2.68</b>
<b>Histrionic</b>	<b>0.93</b>	<b>0.90</b>	<b>1.0</b>	<b>0.64</b>	<b>0.84</b>	<b>0.0</b>	<b>161.0</b>	<b>0.36</b>	<b>-0.30; 0.09</b>
<b>Narcissistic</b>	<b>0.64</b>	<b>0.91</b>	<b>0.0</b>	<b>0.64</b>	<b>1.15</b>	<b>0.0</b>	<b>184.0</b>	<b>0.76</b>	<b>-0.66; 0.66</b>
<b>Total Cluster B</b>	<b>11.96</b>	<b>6.23</b>	<b>11.0</b>	<b>7.07</b>	<b>5.62</b>	<b>5.5</b>	<b>106.0</b>	<b>0.02*</b>	<b>0.89; 8.89</b>
<b>Cluster C Traits</b>									
<b>Avoidant</b>	<b>1.00</b>	<b>1.49</b>	<b>0.0</b>	<b>1.93</b>	<b>1.98</b>	<b>2.0</b>	<b>140.0</b>	<b>0.14</b>	<b>-2.03; 0.17</b>
<b>Dependent</b>	<b>0.71</b>	<b>1.70</b>	<b>0.0</b>	<b>1.00</b>	<b>1.47</b>	<b>0.5</b>	<b>147.5</b>	<b>0.11</b>	<b>-1.36; 0.79</b>
<b>Obsessive Compulsive</b>	<b>0.54</b>	<b>1.37</b>	<b>0.0</b>	<b>0.57</b>	<b>0.94</b>	<b>0.0</b>	<b>171.0</b>	<b>0.52</b>	<b>-0.86; 0.79</b>
<b>Total Cluster C</b>	<b>2.25</b>	<b>2.91</b>	<b>0.5</b>	<b>3.50</b>	<b>3.59</b>	<b>3.0</b>	<b>152.0</b>	<b>0.22</b>	<b>-3.33; 0.83</b>

a m=mean; b s.d.=standard deviation; c med =median; d p=statistical probability; e 95% CI = 95% CI for the difference between the means \* = statistically significant

### **Overall personality pathology**

A similar proportion of the RV and SV group was assessed as definitely or at least probably meeting the criteria for any personality disorder (approximately 75%) (see tables 15 and 16). It is of note that 10 patients (all from the Rampton sample) were *not* assessed as meeting the criteria for at least one probable or definite personality disorder, despite all being resident within the personality disorder directorate. Possible explanations for this finding are considered later in Chapter 5.

Although the RV group had a higher mean (17.00 vs. 12.64) and median (17.0 vs. 12.0) total number of traits, this was not statistically significant (see table 17).

### **Diagnostic categories**

The percentage of each group meeting the criteria for the 11 diagnostic categories is shown in tables 15 and 16. There were no statistically significant differences between the SV and RV groups when looking at definite diagnoses of personality disorder, although the difference between the groups in terms of definite antisocial personality disorder approached significance (SV 14.3% vs. RV 42.9%,  $p = 0.064$ ). However, when the threshold was lowered to include probable diagnoses, significantly fewer SV members had a probable or definite diagnosis of antisocial personality disorder in comparison to RV members (SV 14.3% vs. RV 57.1%,  $p = 0.008$ ).

### **Trait pathology**

The trait pathology of the RV and SV groups is shown in Table 17. The RV group had significantly more cluster B traits (mean 11.96 vs. mean 7.07,  $p = 0.016$ ) and antisocial personality disorder traits (mean 7.46 vs. mean 4.14,  $p = 0.007$ ) than the SV group. There were no other significant differences between the 2 groups, although the RV group showed a trend towards having

slightly more paranoid (RV mean 1.18 vs. SV mean 0.57,  $p=0.082$ ) and borderline (RV mean 2.93 vs. SV mean 1.64,  $p=0.081$ ) traits.

#### **4.4 Psychopathy**

PCL-R results were available for 28 (87.5%) of the RV and 15 (78.9%) of the SV groups. The psychopathy scores of the groups are shown in table 18.

**Table 18**  
**PCL-R scores of the RV and SV groups.**

	RV (n=28)			SV (n=15)			Mann Whitney U Test		95% CI <sup>e</sup>
	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	U	p <sup>d</sup>	
<b>Total</b>	<b>20.21</b>	<b>6.89</b>	<b>19.50</b>	<b>14.35</b>	<b>6.57</b>	<b>13.00</b>	<b>111.0</b>	<b>0.01*</b>	<b>1.47; 10.24</b>
<b>Factor 1</b>	<b>7.11</b>	<b>3.96</b>	<b>7.50</b>	<b>6.42</b>	<b>3.83</b>	<b>5.00</b>	<b>192.5</b>	<b>0.65</b>	<b>-1.84; 3.22</b>
<b>Factor 2</b>	<b>10.79</b>	<b>3.75</b>	<b>11.00</b>	<b>6.61</b>	<b>2.96</b>	<b>6.00</b>	<b>73.5</b>	<b>&lt; 0.01*</b>	<b>1.91; 6.43</b>

m=mean; b s.d.=standard deviation; c med=median; d p=statistical probability; e 95% CI=95% CI for the difference between the means; \* = statistically significant

In comparison to the SV group, the RV group had significantly higher mean total PCL-R, and factor 2 scores but not factor 1 scores

#### **4.5 Anger**

The STAXI questionnaires were completed by 27 (84.4%) of the RV group and 18 (94.7%) of the SV group. The anger scores of the 2 groups are shown in table 19.

**Table 19**  
**STAXI / STAXI- 2 scores of the RV and SV groups**

	RV (n=27)			SV (n=18)			Mann Whitney U Test		95% CI <sup>j</sup>
	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	U	p <sup>d</sup>	
T-ang <sup>e</sup>	18.89	6.86	17.00	16.11	4.39	14.50	192.0	0.24	-0.61; 6.16
T-ang/T <sup>f</sup>	7.22	3.33	6.00	5.67	1.88	5.00	178.0	0.13	-0.02; 3.13
T-ang/R <sup>g</sup>	7.37	2.44	7.00	7.11	2.22	7.00	233.5	0.82	-1.18; 1.70
AX-I <sup>h</sup>	16.30	4.53	16.00	16.78	6.05	16.50	240.5	0.95	-3.66; 2.70
AX-O <sup>i</sup>	16.33	3.90	15.00	14.11	2.97	14.00	168.5	0.08	-0.04; 4.41
Anger control	19.81	7.07	19.00	24.33	5.58	24.50	149.0	0.03*	-8.50; -0.51

a m=mean; b s.d.=standard deviation; c med = median; d p=statistical probability, e T-ang = Trait Anger; f T-ang/T = Angry Temperament; g T-ang/R = Angry Reaction; h AX-I = Anger Expression In; i AX-O = Anger Expression Out; j 95% CI = 95% CI for the difference between the means; \* = statistically significant

The only statistically significant difference between the 2 groups in terms of the STAXI anger indices, was Anger Control; The SV group reported more control over the expression of their anger than the RV group. The difference between the two groups in terms of Anger Expression Out approached significance (p=0.083) with the RV group reporting more outward expression of anger than the SV group.

#### **4.6 Reported Incidents**

Four (12.5%) of the RV and 2 (10.5%) of the SV (all from the Arnold Lodge sample) were excluded from the analysis as they had been discharged within one year of admission.

Table 20 shows the proportion of the RV and SV offenders who received at least one report, for at least one incident, and for each incident type, in the 1 year period examined. (The number of patients who received at least one report for at least one incident was less than the sum of patients who had received a report for each incident because some patients received reports for more than one incident type)

**Table 20**  
**Proportion of the RV and SV groups who received at least one report for at least one incident and for each incident type.**

Incident type	RV (n=28)		SV (n=17)		Pearson's Chi-Square $\chi^2$ $p^a$	
At least one incident	14	50%	6	35%	0.93	0.34
Threat act	13	46%	5	29%	1.28	0.26
Violent act	3	11%	3	18%	<sup>b</sup>	0.28
Damage to property	4	14%	0	0%	<sup>b</sup>	0.28
Self harm	4	14%	0	0%	<sup>b</sup>	0.28
seclusion	4	14%	0	0%	<sup>b</sup>	0.28

<sup>a</sup> p=statistical probability; <sup>b</sup> More than 25% of cells had an expected count of less than 5, therefore Fisher's Exact Test used

The first thing to note here is the low prevalence of reported incidents. Only 20, 44% of the sample had received at least one report for any incident. Thus 56% of the sample had not received an incident report in the year period examined. Whilst a higher proportion of RV offenders received at least one report for at least one incident (RV 50.0% vs. SV 35.3%) and for a threat incident (RV 46.4% vs. SV 29.4%), these differences were not statistically significant.

Table 21 shows the proportion of incidents attributable to the RV and SV offenders, for all incidents and for each incident type.

**Table 21**

**Proportion of incidents attributable to the RV and SV offenders, for all incidents and for each incident type.**

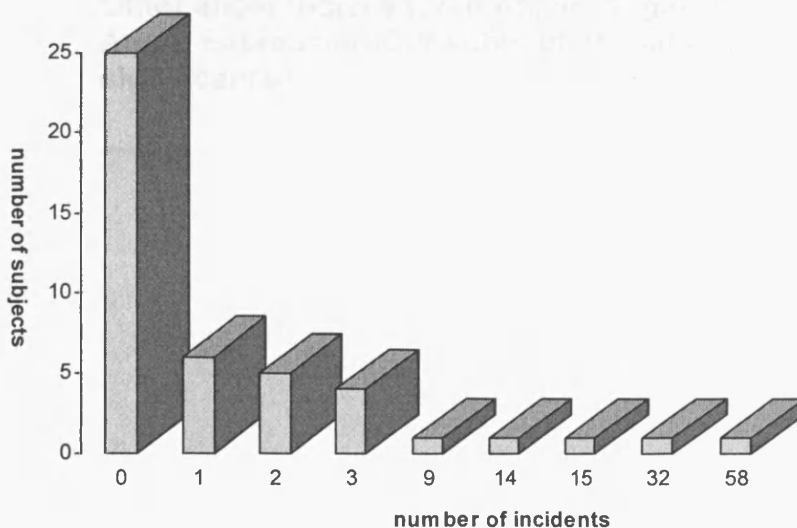
Incident type	Whole sample n	RV		SV		Pearson's Chi-Square	
		n	%	n	%	X <sup>2</sup>	P <sup>a</sup>
All incidents	156	143	92%	13	8%	108.33	<0.01
Threat incidents	97	88	91%	9	9%	64.34	<0.01
Violent incidents	28	24	86%	4	14%	14.29	<0.01
Damage to property	11	11	100%	0	0.0%	b	b
Self harm incidents	5	5	100%	0	0.0%	b	b
Seclusion episodes	15	15	100%	0	0.0%	b	b

a p= statistical probability; b X<sup>2</sup> not calculated because 0 incidents of damage to property, self harm, or seclusion episodes were reported for the SV group.

The majority of reported incidents were threat acts - 62.2% of all reported incidents. It is clearly evident that in comparison to the SV group, the RV group was responsible for the vast majority of the incidents. A closer look at the data revealed that 5 patients were responsible for 128 (82.1%) of the incidents (see figure 1). All these 5 belonged to the RV group.

**Figure 1**

**Number of reported incidents for the whole sample**



### **Results** **Summary**

- **In comparison to RV offenders, SV offenders**
  - **Started offending at an older age, had fewer juvenile convictions, and were less likely to engage in non violent offending behaviour.**
  - **Were less likely to diagnosed with antisocial personality disorder, and had fewer antisocial and cluster B traits.**
  - **Were less psychopathic in terms of total and factor 2 scores on the PCL-R**
  - **Reported more anger control**
  - **Were responsible for a much lower proportion of reported incidents, although most of the incidents occurring in the RV group were due to 5 patients.**
- **There were no statistical differences between the 2 groups in terms of**
  - **Other personality disorder pathology**
  - **Factor 1 psychopathic traits**
  - **Other anger indices (Trait Anger, Anger Expression –In and Anger Expression-Out although the latter approached significance)**



# **CHAPTER 5**

## **DISCUSSION**

## **CHAPTER 5**

### **DISCUSSION**

Part I of this study sought to re-visit the under-overcontrolled typology of violent offenders as it might apply to personality disordered offenders detained in secure care, by examining the evidence for distinguishing criminological and psychopathological features between one time (SV) and repeat violent (RV) offenders. (The difference between the two groups in terms of risk assessment by clinical team members is explored in Part II of the study).

The findings of the study will be discussed first, followed by its limitations and its advantages. The chapter will close with ideas for future work.

#### **5.1 Findings**

##### **Criminal characteristics of the SV and RV groups.**

A much higher proportion of the SV group had committed an index offence of a serious nature (murder, manslaughter, attempted murder), (SV 89.5% vs. RV 31.3%). This is in keeping with the findings of Verona and Carbonell (2000) who found that imprisoned one time violent women were significantly more likely to have committed homicide than repeatedly violent women. One possible explanation for this is that in keeping with Megargee's description of overcontrolled offenders, these were individuals who repressed their anger until it exploded to the fore in a display of excessive and or serious violence. However this is not supported by other results of the study (see discussion of anger). An alternative explanation is that it was the serious nature of the offence committed by these individuals, who had no previous convictions for violence that led them to be detained in hospital. It may be that clinicians found these 'atypical' cases of particular interest or a clinical challenge, and were therefore inclined to admit them.

As predicted, a lower proportion of the SV group engaged in non violent offending behaviour. This again is in keeping with the findings of Verona and Carbonell (2000). In addition, SV offenders were found to be significantly older at the time of their first offence and to have significantly less juvenile convictions. This suggests that the offending behaviour of SV offenders was perhaps less due to a criminal lifestyle or due to attitudes supporting criminal behaviour, but more related to an interpersonal situation.

### **DSM Personality Pathology**

The first thing to note here is the low prevalence of personality disorder found within the Rampton sample. Only 67.7% (21 out of 31) of Rampton patients within the personality disorder directorate assessed using the IPDE were found to meet the criteria for a definite or probable diagnosis of Personality Disorder. This could be due to a number of factors. Firstly, in contrast to patients admitted to Arnold Lodge, when patients admitted to Rampton Hospital are assessed pre-admission, personality disorder is not routinely diagnosed using a diagnostic instrument such as the IPDE, thus patients may have been admitted to the Personality Disorder Directorate at Rampton Hospital without actually meeting the criteria for a DSM personality disorder (as assessed using the IPDE). Secondly, patients may have manipulated their answers on the IPDE to minimise pathology. However the IPDE allows raters to consider additional information and to score in the favour of this information if they consider it to be more reliable than the response given by the patient. Thirdly, the IPDE assessments were carried out in some cases several years *after* the patients had been admitted. Thus it is possible that the personality of patients who would have met the criteria for at least one probable or definite personality disorder on admission had changed over time, so that at the time of the IPDE assessments, they no longer met the criteria for any category of personality disorder. Finally the long length of detention of some of the Rampton patients prior to the IPDE being carried out caused difficulties when assessing personality pathology. A number of the IPDE interview questions had limited

applicability when trying to establish the presence or absence of traits; for example asking about occupational activities or intimate relationships, when the patient had not worked, or been in an intimate relationship for several years, by virtue of being detained in a secure hospital. In addition, the secure setting itself may have prevented the expression of certain traits that the individual would show and indeed did show when not in that setting. For example the expression of the Borderline Personality Disorder trait *'impulsivity in at least 2 areas that are potentially self – damaging (e.g. spending, sex, substance abuse, reckless driving, binge eating)'* would obviously be markedly reduced in settings of security by virtue of the secure perimeter and the strictly controlled ward environment.

#### Antisocial Personality Disorder (ASPD)

The author's primary hypothesis that SV offenders would have less antisocial personality disorder pathology than RV offenders was confirmed both in terms of the number of individuals meeting the criteria for probable or definite antisocial personality disorder (SV 14.3% vs. RV 57.1%) and in terms of the number of antisocial personality disorder traits (SV mean 4.14 vs RV mean 7.46) This finding overlaps with the results discussed earlier with regard to criminal history.

When considering this finding, it is important to acknowledge an important confounding factor. One of the diagnostic traits for ASPD is *"irritability and aggressiveness, as indicated by repeated physical fights or assaults"* yet the allocation of subjects to SV or RV groups was on the basis of convictions for previous violence, thus one would expect the SV group to score lower than the RV group on this ASPD trait. However this is only 1 of the 6 adult ASPD traits. The others, listed below do not make direct reference to violent behaviour.

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;

- Deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsivity or failure to plan ahead;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalising having hurt, mistreated, or stolen from others.

Thus it is unlikely that the difference between the 2 groups in antisocial personality disorder pathology could solely be accounted for by the method of grouping the patients and probably reflects a real difference between the 2 groups.

This finding is consistent with earlier cluster analytic studies of violent offenders (Blackburn, 1996; Blackburn & Coid, 1999) which found that the clusters of violent offenders with the least criminal history associated, were less antisocial using DSM criteria. It is also consistent with studies that have shown that overcontrolled offenders (categorised by the O-H scale or history (criminal or social are less impulsive and hostile (Dutoit & Duckitt, 1990; Lane & Spruill, 1980).

#### Other hypotheses

There was no support for the secondary hypotheses that the SV group would have less personality disorder pathology overall and would be more schizoid, avoidant or compulsive than the RV group.

#### **Psychopathy**

As predicted, the SV offenders were significantly less psychopathic than RV offenders in terms of total and factor 2 scores on the PCL-R. However, there was no significant difference between the 2 groups on factor 1 scores.

Factor 2 has been labelled the *socially deviant lifestyle* factor and incorporates traits of lack of stimulation / boredom, parasitic lifestyle, poor behavioural controls, early behavioural problems, lack of long term goals, impulsivity, irresponsibility, juvenile delinquency, revocation of early release and criminal versatility. The higher score of RV offenders on factor 2 overlaps with the previous findings of this study in relation to criminal history and antisocial personality disorder. PCL-R Factor 2 has been shown to be strongly correlated with antisocial personality disorder and criminality (which were both higher in the RV offenders).

However, there was no difference between the groups on factor 1. This factor has been labelled as the *affective / interpersonal factor* and incorporates traits of glibness/superficial charm; grandiose sense of self worth; pathological lying; conning/manipulative; lack of remorse or guilt; shallow affect; callous/lack of empathy and failure to accept responsibility for own actions.

To explore these findings further the total, factor 1 and factor 2 PCL-R scores of the RV and SV groups were transformed to T scores (derived from a sample of UK male offenders). T scores provide information that compare an individual's scale scores with the scores of participants in a relevant normative standardisation sample. The mean T scores of the RV and SV groups are shown in table 22

**Table 22**  
**PCL-R T scores of the RV and SV groups**

	RV (n=28)				SV (n=15)			
	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	95%CI <sup>d</sup>	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	95%CI <sup>d</sup>
<b>Total</b>	<b>54.07</b>	<b>9.43</b>	<b>53.00</b>	<b>50.41; 57.72</b>	<b>46.20</b>	<b>8.83</b>	<b>44.00</b>	<b>41.00; 51.09</b>
<b>Factor 1</b>	<b>51.39</b>	<b>10.14</b>	<b>54.00</b>	<b>47.46; 55.32</b>	<b>50.33</b>	<b>10.27</b>	<b>47.00</b>	<b>44.64; 56.00</b>
<b>Factor 2</b>	<b>53.54</b>	<b>7.73</b>	<b>53.00</b>	<b>49.46; 55.46</b>	<b>43.66</b>	<b>6.44</b>	<b>42.00</b>	<b>40.09; 47.23</b>

a m=mean; b s.d.=standard deviation; c med =median; d 95% CI = 95% CI for the mean

The table shows that neither the RV nor the SV sample differed greatly from the normative sample of UK male offenders on total, factor 1 or factor 2 PCL-R scores, with mean T scores ranging from 43.66 to 54.07. Having said this, the 95% CI for the mean T score for Factor 2 for the SV group ranged from 40.09 to 47.23, suggesting that the true population mean *may* be as low as 40.09 (nearly 1 standard deviation below the mean). This suggests that not only were SV offenders less socially deviant than RV offenders but they may also have been less socially deviant than UK male offenders in general.

### **Anger**

As predicted, SV offenders reported more control over their anger than RV offenders (SV mean 24.33 vs. RV mean 19.81) and the difference between the 2 groups on Anger Expression- Out (SV mean 14.11 vs. RV mean 16.30) was in the predicted direction (RV group reporting a greater tendency to express their anger outwards than the SV group) and approached statistical significance. However, the hypotheses that the SV group would experience less anger (as measured by Trait Anger), or would have a greater tendency to direct anger inwards (as measured by Anger Expression-In) were not supported.

The comparison between the SV and RV groups is not very helpful though, unless it is put into context by comparing the groups to a normal sample. For example how do we interpret the findings that the SV group approached scoring significantly lower than the RV group on Anger Expression Out and significantly higher than the RV group on Anger Control? Is this a reflection of the SV offenders being pathologically 'overcontrolled' as described by Megargee, whereby they excessively control their expression of anger, or are these findings a reflection of the 'undercontrolled' nature of the RV group, whereby the normal inhibitions and control over the expression of anger are diminished.

In the absence of a normal population, the scores of the RV and SV groups on all of the anger indices were transformed to T scores (derived from a normative standardisation sample of normal adults) and the mean T scores examined – see table 23.

**Table 23**  
**STAXI-2 T scores of the RV and SV groups**

	RV (n=27)				SV (n=18)			
	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	95%CI <sup>d</sup>	m <sup>a</sup>	s.d. <sup>b</sup>	med <sup>c</sup>	95%CI <sup>d</sup>
Trait Anger	52.44	14.73	48.00	46.61; 58.27	46.89	9.95	43.00	41.94; 51.83
Angry Temperament	52.07	14.28	48.00	46.43; 57.72	45.33	9.96	42.00	40.38; 50.28
Angry Reaction	45.03	9.94	44.00	41.10; 48.98	43.55	8.66	44.00	39.24; 47.28
Anger Expression In	52.00	11.65	52.00	47.39; 56.61	52.44	15.96	53.00	44.50; 60.38
Anger Expression Out	53.93	12.51	50.00	48.98; 58.87	47.11	10.39	48.00	41.94; 52.27
Anger Control	40.23	13.85	38.00	34.81; 45.78	48.67	11.33	49.00	43.04; 54.30

a m = mean; b s.d = standard deviation; c med = median; d 95% CI = 95% CI for the mean

The table shows neither the RV nor the SV sample differed greatly from the normative standardisation sample on any of the anger indices, with mean T scores ranging from 40.23 to 53.93. Having said this, the 95% CI for the mean T scores for Anger Control for the RV group ranged from 34.81 to 45.78, suggesting that the true population mean *may* be as low as 35, suggesting that the RV population *may* be undercontrolled in comparison to a normative sample. This was supported by further examination of the T scores:- 16, 59.3% of the RV group had Anger Control T scores of less than 40 (less than



one standard deviation below the mean), compared to 6, 33.3% of the SV group. This approached statistical significance ( $X^2 = 2.91$ ,  $p=0.09$ ).

Similarly, the 95% CI for Anger Expression-In for the SV group ranged from 44.50 to 60.38, suggesting that the true population mean *may* be as high 60.38, suggesting that the SV group *may* have a more of tendency to direct anger inwards in comparison to a normative sample. However when the T scores of the groups were examined in more detail, although in comparison to the RV group, a slightly higher proportion of the SV group had Anger Expression-In T scores of greater than 60 (1 standard deviation above the mean) (SV 27.8% vs. RV 18.5%), this was not statistically significant .

In summary then, whilst there was some evidence to suggest that the RV group were undercontrolled in terms of anger expression, there was little evidence to suggest that the SV group were overcontrolled (that is there was little evidence to suggest that the SV group experienced markedly less anger, were more likely to direct anger inwardly, or exerted more control over their anger), in comparison to the normal population. Thus the SV offenders in this sample, individuals whose index conviction was for a serious violent offence, but who had no history of previous violent convictions, did not fit Megargee's prototype of an 'overcontrolled' offender.

The findings from this study suggest that the SV offenders were not pathological in terms of their anger experiences and may actually have been similar to the normal population. It is possible therefore that chronic abnormal processing of anger did not play a major role in their offending, and that the offence was due to a combination of other factors. However, another possibility is that their stay in hospital resulted in offenders who were overcontrolled at the time of admission becoming less controlled, as they responded to treatment.

### **Institutional Misbehaviour as reflected by reported incidents**

Although a lower proportion of the SV offenders had received a report for at least one incident over a 1 year duration (SV 35.3% vs. RV 50.0%), this was not statistically significant. However, of all the incidents reported, the majority (82.1%) were carried out by 5 patients, all belonging to the RV group. Thus a significantly higher proportion of incidents were caused by RV offenders in comparison to SV offenders.

The first thing to note here is the low prevalence of institutional disturbance in the sample. Just over a half of the sample had not received an incident report over a 1 year duration and of the incidents that were reported, the majority, 62.2% were threat incidents with few violent, damage to property, self harm and seclusion incidents. Furthermore, a minority of patients – 5 were responsible for most (82.1%) of incidents. These findings beg the question as to whether incident reporting of this kind is useful when considering the progress / clinical improvement of an individual. That is, given the low base line rate of incidents, if an individual has not received any reports for incidents over the previous year, can that be taken to mean that they are making good progress?

It is clear from the results that none of the SV offenders presented as chronically disturbed whilst 5 of the RV offenders did. Considering the STAXI results discussed earlier, one might consider that this finding was more a reflection of RV offenders being undercontrolled in their expression of anger as opposed to SV offenders being overcontrolled. This view has further support from the STAXI T scores of 4 of the 5 chronically disturbed offenders (see table 24). (T scores were only available for 4 of the 5 offenders, since one offender refused to complete the STAXI)

**Table 24**

**STAXI – 2 T scores of 4 of the 5 RV patients responsible for the majority of reported incidents**

	Patient 1	Patient 2	Patient 3	Patient 4	Mean
Trait anger	80	70	64	74	73
Angry temperament	80	70	70	80	75
Angry reaction	56	52	48	44	50
Anger expression in	80	64	56	60	65
Anger expression out	80	58	64	78	70
Anger control	24	40	34	32	32.5

The mean T score on 3 of the indices (Trait Anger, Angry Temperament, and Anger Expression-out) was 70 or above, indicating that these individuals were much more likely to experience anger and to express it outwardly than the normal population. The mean Anger Control T score was 32.5, indicating that these individuals reported much less control over their anger than the normal population.

### **Summary and clinical implications.**

Drawing these findings together, it would seem that whilst RV offenders were individuals with criminal backgrounds, antisocial and socially deviant lifestyle traits, and problems controlling their anger or behaviour, SV offenders were not. Treatment programmes often offered to offenders target criminal attitudes and lifestyle, and aim to improve anger and behavioural control. Whilst these would seem appropriate for RV offenders, they may not be particularly helpful for SV offenders. For these offenders, perhaps more importance needs to be given to individual case offence analysis when considering treatment options with treatment directed at exploring particular interpersonal issues that prevailed at the time of the offence.

## **5.2 Limitations**

The 2 major limitations to this part of the study were the small sample size and the timing of the collection of measures for the Rampton patients (sometimes years after admission). These and other limitations are discussed below

### **Sample size**

Despite combining the Arnold Lodge and Rampton samples, the sample size was small, particularly the SV group, which had only 19 patients. This was further reduced for some comparisons because not all dependent variable data were available for all patients (see table 11). Although highly sophisticated statistical methods of imputation for handling of missing data do exist, these all assume that missing data are MCAR (missing completely at random) and also that other variables are non missing from which one can reasonably impute the value of the missing variable for that participant. These assumptions could not be met with these study data and therefore these techniques were not used.

This means that the study had quite limited statistical power with the consequent probability of failing to find statistically significant differences between the 2 groups on some of the dependent variables (type II error). Nevertheless, the sample size in this study was comparable to those used in previous studies of this kind (see tables 1 and 2).

The small sample size also led to large confidence intervals for statistically significant differences, thus even when the results suggested some difference between groups, one cannot not have much confidence in the accuracy of the level of difference found.

### **Timing of the collection of measures**

Ideally, to avoid the potential confounding effect of being in hospital for several years on the dependent variables, one would have wanted the dependent

measures to have been collected soon after the index offence had been committed, or given that this was a hospital sample, *on or soon after* the subjects' admission to hospital, However given that approximately 12 patients are admitted to the Rampton Personality Disorder Directorate per year and this number includes patients who have committed index offences of a sexual nature and arson (which were excluded from this sample), if this had been done, the project would have taken several years to complete.

### **Combining two samples**

The sample was made up of a combination of patients from 2 populations – those admitted to a high secure and those admitted to a medium secure hospital. This was done to maximise sample size given that it was envisaged that the SV patients would be few in number (as was proven to be the case). However, comparison of the 2 data sets on dependent variables showed some significant differences between the 2 populations. This, coupled with the difference in the timing of collection of the data in the patient's care pathway, gave rise to considerable debate as to whether or not the 2 sub samples should be combined and analysing them separately was considered. However this would have led to a reduction in an already small sample size, thus affecting the power of the study.

Given that an *equal* proportion of Rampton and Arnold Lodge patients were in both the SV and RV groups (see tables 8 and 12), it was eventually decided to combine the 2 sites, as originally proposed, on the basis that any differences between the patients at the 2 sites would be equally represented in the SV and RV groups and therefore should not greatly influence the outcome of comparison of the SV and RV groups.

### **Representativeness of the sample**

Whilst all of the patients resident within the personality disorder directorate at Rampton hospital were included in the sample (as their consent was not

required), only 28 of the 37 Arnold Lodge patients approached agreed to take part in the project. Thus it is not known how representative the patients in the Arnold Lodge part of the sample were of the Arnold Lodge population as a whole. In addition, one does not know how similar the patients in this sample were to other personality disordered patients with an index offence of violence detained in other hospital settings. Finally, this study was carried out on a highly selected sample –violent offenders who had been assessed as suitable for admission to hospital. The majority of violent offenders are not admitted to hospital but remain in prison or are given a community disposal. All these factors, in particular the latter, limit the generalisability of the results.

### **Measures used**

One of the measures used was a self report questionnaire (STAXI) and one a self report interview (IPDE), therefore it is possible that patients manipulated their answers to reflect what they wanted to portray to the assessors (magnifying or minimizing pathology), that is the results obtained may not have been a true reflection of the variable being measured. However, as already pointed out earlier on in this chapter, the IPDE allows raters to consider additional information and to score in the favour of this information if they consider it to be more reliable than the response given by the patient. Other measures either combined self report with collateral information (PCL-R) or were obtained from sources other than the patient (criminal history data, incident data).

As pointed out previously there were difficulties in using the IPDE to assess personality disorder in patients who had been detained in hospital for many years.

For two measures (that of personality disorder and anger), results of two different variants of the same measure were combined (DSMIII-R and DSM IV versions of the IPDE, and STAXI and STAXI – 2). However as outlined in

chapter 3, it was judged that in the case of the IPDE, the DSM III-R and DSM IV categories were similar enough for them to be combined and in the case of the STAXI, most of the indices examined were either identical or very similar in the two versions.

With regard to incident report data, the threshold for reporting incidents may have varied, depending on the staff on duty, and the hospital site.

The measures of criminality were based on recorded convictions for offences, however as has been shown by Mulvey, Shaw and Lidz (1994), recorded convictions may not reflect (underestimate) the true level of criminality and offending behaviour.

There was no assessment of inter rater reliability for any of the measures used. However the majority of measures used were known to have good inter rater reliability (see Chapter 3).

### **Categorisation of patients into the SV and RV groups.**

The categorisation of patients into the SV and RV groups was based on recorded convictions for violent offences, however it is possible that some SV offenders had a history of violent offending behaviour but had not been convicted of violent offences, thus leading to potential mis-categorisation of SV offenders.

### **Potential rater bias**

Ideally, to prevent the occurrence of rater bias, all the data should have been collected by individuals independent to the author, who were blind to the study hypotheses. This was the case for most variables, except criminal history data from the Arnold Lodge site, some personality disorder assessments (IPDE) at the Rampton site, and institutional behaviour data at both sites which were

collected by the author. Therefore the absence of rater bias cannot be guaranteed.

### **Statistical Analysis**

Multiple comparisons were carried out, therefore increasing the risk of a spurious statistically significant finding. This has already been discussed in the method section and therefore will not be repeated here.

### **5.3 Advantages**

Despite the limitations outlined above, there were some advantages to this study over those previously carried out. For example, the majority of previous studies examining this typology had categorised patients into groups on the basis of their O-H score but as discussed in chapter 1, there are some questions as to the validity of this instrument. The grouping of patients in this study was on the basis of their criminal history.

Secondly, whilst previous studies have examined combined samples of mentally ill and personality disordered offenders, this study sought to investigate a sample of offenders whose primary diagnosis was that of personality disorder.

Thirdly when examining the personality characteristics of the groups, the more frequently used and familiar DSM classification of personality disorder was used as opposed to other descriptions / classifications of personality disorder such as the MMPI. In addition, a measure of psychopathic traits was also included which is an increasingly important and frequently used measure in forensic psychiatric settings.

Fourthly, excepting one previous study (Verona & Carbonell, 2000), carried out with women prisoners, none had explicitly set out to examine the evidence for



the over-undercontrol of anger expression that was put forward by Megargee. This study attempted to do this by looking specifically at indices of anger and behavioural control (as measured by incidents).

#### **5.4 Future work**

1. Given the limitations of this study, particularly the sample size, the timing of the assessments, and the limited generalisability from using a hospital sample, it may be appropriate to repeat the study using a prison population and a prospective study design, so that data are collected on a much larger, more representative population of violent offenders soon after the violent index offence has been committed.
2. The purpose of carrying out this part of the study was to try and delineate clinical factors that may have lain behind the serious violent offending carried out by individuals who did not have previous convictions for violent offences. That is, was there something about their personality or the way they controlled their anger that contributed to their offending? The findings of this study suggest that these individuals were not antisocial, impulsive individuals with difficulties controlling their behaviour or their anger. However, the study failed to shed any light on what it was about these individuals that led them to behave in the way that they did. Certainly there was no evidence that they had markedly differing personality pathology to the RV offenders (apart from not being antisocial) or that they were excessively overcontrolled in terms of their anger.

It is possible that the study *failed to measure what needed to be measured* in this regard. That is, was there some aspect of psychopathology that was important in understanding the offending behaviour of these individuals, that was not picked up with the measures used? Perhaps the next step is a

more in depth examination of the factors that might underlie the offending by SV offenders by looking at individual offence analyses for each patient.

# **PART II**

## **EXAMINING RISK ASSESSMENT IN PRACTICE**

# **CHAPTER 6**

## **RISK ASSESSMENT IN PRACTICE**

### **LITERATURE REVIEW**

## **CHAPTER 6**

### **RISK ASSESSMENT IN PRACTICE. LITERATURE REVIEW.**

#### **6.1 Introduction**

The assessment of an individuals' potential risk to others, is now considered an integral part of the work of mental health professionals, even more so when the individual is in the care of Forensic Mental Health services.

Over the past decade, there has been extensive research undertaken to identify empirically validated risk factors for violent behaviour in mentally disordered individuals (Harris, Rice & Quinsey, 1993; Monahan, Steadman, Silver, *et al*, 2001) This research has resulted in the generation of a number of risk assessment tools / instruments to guide risk assessment, including actuarial instruments, where risk factors are combined mathematically / statistically (such as the Violence Risk Appraisal Guide (VRAG), (Quinsey, Harris, Rice, *et al*, 1998) and instruments that ask clinicians to systematically consider a number of factors known to be associated with an increased risk of violent behaviour and then to use this to structure their clinical judgement of risk (such as the HCR-20), (Webster, Douglas, Eaves, *et al*, 1997).

But how much impact has this research had in the clinical world? Although much has been written of how clinicians *should* assess risk of harm to others (Bonta, 2000; Borum, 1996; Dolan & Doyle, 2000; Douglas, Cox & Webster, 1999; Doyle & Dolan, 2002; Limandir & Sheridan, 1995; Mills, 2005), it seems that there has been much less attention devoted to finding out how clinicians actually *do* assess risk (Elbogen, 2002; Jackson, 1989).

This chapter is devoted to the review of research in this area. The approaches that have been used to study this issue can be broadly grouped into 3 major areas:-

1. Studies that have retrospectively compared the characteristics of individuals judged as dangerous with those that have been judged as not dangerous. Here, it is assumed that the distinguishing variables represented factors in clinicians' decision making.
2. Studies that have examined the level of agreement between clinicians' judgements of an individual's 'dangerousness' (reliability studies).
3. Studies that have attempted to examine the decision making process of clinicians more directly, when they make judgments or decisions related to risk.

These 3 streams of research will now be discussed in turn, followed by a more general discussion relating to methodology issues.

## **6.2 Comparison studies**

Early studies examining the differences between patients judged as dangerous compared to those judged as not dangerous are summarized in reviews by Jackson (1989) and Mulvey and Lidz (1984). For example Quinsey, (1975) found that the major difference between patients judged as dangerous compared to those judged as non dangerous, in a maximum secure hospital, was the severity of previous offences. Cocozza and Steadman (1978) found that the only difference between incompetent felony defendants judged as dangerous compared to those judged as not dangerous by Psychiatrists for the purposes of a court disposal, was the seriousness of the current offence. Menzies, Jackson & Glasberg (1982) found that patients admitted to a Forensic Brief Assessment Unit were more likely to receive high ratings of dangerousness if they had a had a history of violence and previous incarcerations and were facing a charge of violence. Later studies that have

examined factors or cues that distinguished between those judged as dangerous compared to those judged as not dangerous are shown in table 25.

**Table 25**  
**Risk assessment in practice. Comparison Studies**

<b>Author, subjects</b>	<b>Raters &amp; Judgment made</b>	<b>Variables used in comparison</b>	<b>Results</b>
<b>Werner, Rose &amp; Yesavage, (1983)</b>  <b>40 North American male patients in a psychiatric intensive care unit</b>	<b>15 Psychologists</b> <b>15 Psychiatrists</b>  <b>Whether patient would engage in violence during first 7 days after admission</b>	<b>18 factors on BPRS (Brief Psychiatric Rating Scale)</b>  <b>Whether violence had been a factor leading up to admission</b>	<ul style="list-style-type: none"> <li>• <b>BPRS factors of hostility, excitement suspiciousness, uncooperative, mannerisms and posturing, conceptual disorganisation, tension, and grandiosity and occurrence of violent act leading up to admission were positively correlated with judgments of violence</b></li> <li>• <b>BPRS factors of depressive mood, motor retardation and blunted affect were negatively correlated with a prediction of violence</b></li> </ul>
<b>Segal, Watson, Goldfinger et al, (1988)</b>  <b>251 North American psychiatric patients attending an emergency psychiatric clinic</b>	<b>Assessing clinician and researcher</b>  <b>Rating of dangerousness by clinician and researcher</b>	<b>Symptoms of mental disorder as measured by the IMDS (Indicators of mental disorder scale)</b>	<ul style="list-style-type: none"> <li>• <b>Ratings of dangerousness were moderately associated with symptoms of impulsivity, impaired judgment, abnormality of thought content and form, irritability and inappropriate affect</b></li> </ul>
<b>Cooper &amp; Werner, (1990)</b>  <b>33 North American newly admitted prison inmates</b>	<b>10 Psychologists</b> <b>11 case managers</b>  <b>Whether inmate would be violent within first 6 months</b>	<b>17 variables describing criminal and demographic background</b>	<ul style="list-style-type: none"> <li>• <b>Prediction of violence was associated with current offence and its severity, history of violence, history of escapes/attempts, number of prior arrests</b></li> </ul>



**Table 25 continued**

<b>Author, subjects</b>	<b>Raters &amp; Judgment made</b>	<b>Variables used in comparison</b>	<b>Results</b>
<b>Werner &amp; Meloy, (1992)</b>  <b>50 consecutive North American state hospital inpatients with at least one violent offence</b>	<b>2 clinical staff members</b>  <b>Ratings of dangerousness on 1-7 scale; acceptance / rejection from a release program</b>	<b>BPRS ratings (Forensic adaptation)</b>	<ul style="list-style-type: none"> <li>• <b>Judged dangerousness was significantly correlated with impulsivity, thought content / disorganisation, emotional withdrawal, anxiety, tension, grandiosity, suspiciousness, uncooperativeness, need for supervision, present dangerousness, past substance abuse, absence of community support.</b></li> <li>• <b>Acceptance to release program was associated with lower ratings on impulsivity, emotional withdrawal, grandiosity, absence of community support, risk of non compliance</b></li> </ul>
<b>Menzies &amp; Webster, (1995)</b>  <b>162 North American patients admitted to a brief assessment unit</b>	<b>Ratings of dangerousness on a scale of 1-7</b>	<b>11 psycho legal variables</b>  <b>DBRS<sup>a</sup> (Dangerous Behaviour Rating Scale)</b>	<ul style="list-style-type: none"> <li>• <b>History of violence, medium or high consumption of alcohol, rage and anger were associated with higher ratings of dangerousness.</b></li> </ul>
<b>Rogers, Sewell, Ross et al, (1995)</b>  <b>245 patients detained in a Texan maximum security hospital</b>	<b>Clinicians making recommendations to review board panels.</b>  <b>Review board decision of dangerous / not dangerous</b>	<b>19 Socio demographic, criminal and clinical variables</b>	<ul style="list-style-type: none"> <li>• <b>Highest correlations with dangerous judgments were physical and verbal aggression, unimproved to treatment, treatment uncooperativeness, treatment non compliance</b></li> <li>• <b>Physical assault, lack of improvement and paranoid diagnosis predicted clinician's judgments in 75.2% of cases.</b></li> <li>• <b>Physical assault and lack of improvement predicted 71.1% of review board decisions</b></li> </ul>

**Table 25 continued**

<b>Author, subjects</b>	<b>Raters &amp; Judgment made</b>	<b>Variables used in comparison</b>	<b>Results</b>
<b>Grant, Ogloff &amp; Douglas, (2000)</b>  <b>90 North American individuals in a mental health facility who underwent a Mental Health Review Tribunal</b>	<b>British Columbia review panel</b>  <b>Release Yes / No</b>	<b>Socio demographic, behaviour prior to hospitalisation, hospital adjustment, clinical variables</b>	<ul style="list-style-type: none"> <li>• In comparison to those not released, released individuals were               <ul style="list-style-type: none"> <li>○ significantly more likely to have separated parents, live with common law wife, be non Caucasian, have a past history of violence, have lower levels of problems with prior community adjustment, been un cooperative on admission, have a history of Delirium Tremens.</li> <li>○ Significantly less likely to have breached a court order.</li> </ul> </li> </ul>
<b>Hood &amp; Shute, (2000)</b>  <b>438 British prisoners, whose cases were reviewed by the parole board.</b>	<b>Parole board</b>  <b>Release on parole Yes / No</b>	<b>Variables relating to criminal history and progress in prison</b>	<ul style="list-style-type: none"> <li>• In comparison to those refused parole, non sex offenders who were paroled were less likely to have a history of previous convictions, a history of violent or sexual offences, a history of youth custody, breached previous orders, and have prison adjudications. Not the case for sex offenders.</li> <li>• In comparison to those refused parole, paroled offenders more likely to be in category D prison and to have completed courses.</li> <li>• Although there was a correlation between ROR (risk of re conviction score) and the parole decision for non sex offenders, 40% of individuals with an ROR of <math>\leq 7\%</math> were not granted parole. In the case of sex offenders, 80% of individuals with an ROR of <math>\leq 7\%</math> were not granted parole</li> </ul>

**Table 25 continued**

<b>Author, subjects</b>	<b>Raters &amp; Judgment made</b>	<b>Variables used in comparison</b>	<b>Results</b>
<b>Hilton &amp; Simmons, (2001)</b>  <b>187 mental health tribunal hearings of North American male maximum secure hospital patients</b>	<b>Tribunal board</b>  <b>Release (or transfer) yes /no</b>	<b>Current clinical presentation, criminal history, ratings of patients physical attractiveness, VRAG score</b>	<ul style="list-style-type: none"> <li>• Transferred patients were more likely to be rated as attractive, compliant and responsive to psychotropic treatment, to have a lower pre index criminal history score and to have anxiety and depression.</li> <li>• Transferred patients were less likely to be psychopathic, unfit to stand trial, to have posed institutional management problems and to be actively psychotic</li> <li>• The VRAG score was not correlated with the decision to transfer or discharge, even if present on file.</li> <li>• Institutional management problems, medication non compliance and response, lower attractiveness and more serious index offence predicted clinicians opinion to recommend detention</li> </ul>
<b>Elbogen, Williams, Doyoung et al, (2001)</b>  <b>Patients resident in acute, crisis and chronic services</b>	<b>81 mental health professionals spread over 3 sites</b>  <b>Degree of dangerousness on 8 point scale</b>	<b>PCL-SV cues<sup>b</sup></b>	<ul style="list-style-type: none"> <li>• Lack of remorse and poor behavioural control were positively associated with ratings of dangerousness</li> </ul>

a DBRS = Dangerous Behaviour Rating Scheme encompassing 18 personality , situational, lifestyle related and interview specific factors possibly associated with risk potential and ratings of dangerousness; b PCL-SV = Psychopathy Checklist Screening Version

### **Summary of comparison studies**

The studies are markedly heterogeneous, in terms of the setting and subjects (non forensic psychiatric, forensic psychiatric, prison); the time along the individual's care pathway that judgments were made (at first assessment, shortly after admission, when considering release); the different type of 'dangerous' judgments made (dangerous yes/no, dangerousness on a continuum, will be violent yes / no, should be released yes / no, were released yes / no) and the variables used to compare the 2 groups ( psychopathology, criminal and socio demographic variables, progress in hospital, behaviour in the community). However despite this, there do appear to be some common findings which are discussed below.

When considering studies focusing on dangerous judgments made on admission or during it, it seems that clinicians may associate symptoms such as hostility, irritability, rage and anger; abnormalities in thinking; and impulsivity and poor behavioural controls with dangerousness / risk of harm to others. There also seems to be a common finding that treatment compliance, and responding to treatment were factors associated with patients being released as was fewer problems with institutional behaviour in hospital or prison .

In relation to criminological variables, it seems that a history of violence or a history of previous arrests and convictions and the severity of the current offence or the current offence being of a violent nature were associated with higher perceived risk of harm to others or dangerousness.

It is of note that when studies compared the factors that were associated with clinicians' predictions of violence, and factors that were associated with actual violence, they did not concur. (Menzies & Webster, 1995; Werner, Rose & Yesavage, 1983), which suggests that clinicians may be focusing on the 'wrong' factors when making decisions about risk. This brings to mind the study of the Baxtrom patients (Steadman & Cocozza, 1974), 967 patients who

were released from a maximum security hospital to a civil psychiatric hospital as a result of a court ruling. Four year follow – up of these patients revealed much lower than anticipated rates of re- offending: of the 246 patients who had been discharged to the community, only 2 had committed serious crimes of violence.

Another important finding is that clinicians / decision makers did not take account of actuarial risk measures, even when they were available for review (Hilton & Simmons, 2001; Hood & Shute, 2000) .

### **6.3 Agreement / reliability studies**

It has been stated that in order to have validity, risk assessments must first be reliable. *‘To the extent that predictions of violence are unreliable, they cannot be accurate forecasters of behaviour’* (Werner, Rose & Yesavage, 1983p 815). Studies examining inter rater reliability of risk predictions / judgments are described in table 26.

**Table 26.**  
**Risk assessment in practice. Reliability studies**

<b>Author and subject of ratings</b>	<b>Raters</b>	<b>Outcomes to be rated</b>	<b>Results</b>
<b>Quinsey &amp; Ambtman, (1979)</b>  <b>30 case summaries of hospitalised offenders :- 11 offenders against adults (murderers), 9 child molesters, 10 property offenders</b>	<b>9 Teachers</b> <b>4 Forensic psychiatrists</b>	<b>Likelihood of property and assaultative offence if discharged, seriousness of assaultative offence on 9 point scale</b>	<ul style="list-style-type: none"> <li>• <b>Psychiatrists inter rater reliability - property offences 0.48; assaultative offences 0.18; seriousness of assaultative offence 0.38.</b></li> <li>• <b>Teachers had similar or higher inter rater reliability – property offence 0.46; assaultative offence 0.24; seriousness of assaultative offence 0.57</b></li> </ul>
<b>Werner, Rose and Yesavage, (1983)</b>  <b>40 males in acute I/P hospital</b>	<b>15 Psychologists</b> <b>15 Psychiatrists</b>	<b>Whether patient would be violent in the first 7 days following admission</b>	<ul style="list-style-type: none"> <li>• <b>ICC amongst judges modest (all 0.42; Psychologists 0.47; Psychiatrists 0.37)</b></li> <li>• <b>Later study (Werner, Rose &amp; Yesavage, 1990) showed that accuracy in predictions was higher for those patients where there was a high consensus in judgments (90% of judges agreed)</b></li> </ul>
<b>Cooper &amp; Werner, (1990)</b>  <b>33 newly admitted inmates to prison</b>	<b>10 Psychologists</b> <b>11 case managers</b>	<b>Whether inmate would be violent within first 6 months</b>	<ul style="list-style-type: none"> <li>• <b>ICC among judges low (all 0.23, Psychologists 0.23, Case Managers 0.21).</b></li> </ul>

**Table 26 continued**

<b>Author and subject of ratings</b>	<b>Raters</b>	<b>Outcomes to be rated</b>	<b>Results</b>
<b>McNeil &amp; Binder, (1991)</b>  <b>149 patients admitted to short term locked unit</b>	<b>Nurse</b> <b>Physician</b>	<b>Nurse and physician independently assessed the probability that patient would physically attack someone within next 7 days on 11pt continuum</b>	<ul style="list-style-type: none"> <li>• <b>Moderate reliability</b></li> </ul>
<b>Lidz, Mulvey, Apperson et al, (1992)</b>  <b>390 North American patients assessed in emergency room</b>	<b>2 interviewers for each case</b>  <b>1-junior staff member</b> <b>2- senior staff member</b>	<b>'current dangerousness' on 7pt scale</b>	<ul style="list-style-type: none"> <li>• <b>Moderate reliability</b></li> </ul>
<b>Mulvey &amp; Lidz, (1998)</b>  <b>1938 patients attending psychiatric emergency room over 2 years</b>	<b>Clinician</b> <b>Psychiatrist</b>	<b>Clinician &amp; Psychiatrist independently assessed the likelihood of violence in next 6 months on 5pt scale</b>	<ul style="list-style-type: none"> <li>• <b>Moderate reliability</b></li> </ul>

### **Summary of reliability studies**

Overall, the level of agreement between raters when making judgments of risk was low to moderate. However, the highest correlations were those that were obtained in naturalistic 'real life' settings, when the raters had some involvement with the subjects they were rating, as opposed to raters making judgments based on case vignette information or making judgments about individuals they had not had any clinical involvement with. One study suggested that a higher level of agreement between judges was associated with greater accuracy of predictions. (Werner, Rose & Yesavage, 1990).

### **6.4 Clinical decision making studies**

Studies investigating clinical decision making in this context can be broadly grouped as follows:-

1. Studies examining biases that may operate when making decisions about risk
2. Case vignette studies, examining the influence of manipulated variables on the decision making process
3. Studies examining how the decision making processes of so called 'experts' (Psychiatrists / Psychologists) differs from that of 'non experts'.
4. Studies aimed at eliciting directly from clinicians, the factors they consider as influential in their decision making process.

Each of these will now be discussed in turn.

#### **Bias**

Kahneman and Tversky (Kahneman & Tversky, 1979; Kahneman & Tversky, 1982; Tversky & Kahneman, 1974) have outlined a number of heuristics and biases that might operate when individuals make judgments under uncertainty. These have been applied in the context of Forensic Psychiatry by Borum, Otto et al (1993). The authors make reference to various cognitive processes that



can lead to inaccurate judgments when making decisions, such as over reliance on memory; under utilisation of base rates; confirmatory bias and anchoring (where clinicians have a tendency to look for evidence that supports their hypothesis and ignore or fail to seek information that is not consistent with their hypothesis); mis estimation of co-variation and illusory correlation (where observers infer a correlation between 2 classes of events when in reality they are not correlated); hindsight bias (referring to the fact that after an offence has taken place, its occurrence seems so inevitable that one believes that it could easily have been predicted in advance); over confidence (when clinicians express more confidence in their judgments than is actually warranted); over reliance on unique data (a tendency to give excessive attention to specific symptoms or features that are exotic, interesting or highly unusual); and lack of consideration of basic statistical knowledge (for example regression to the mean and sampling bias).

Researchers have suggested that other biases may pertain when clinicians make risk judgments such as race (Garb, 1998; Garb, 2005; Hoptman, Yates, Patalinjug, *et al*, 1999), gender (Elbogen, Williams, Doyoung, *et al*, 2001; Garb, 1998; Garb, 2005), assessors feelings towards the patient (Dernevik, Falkheim, Holmqvist, *et al*, 2001) and physical attractiveness (Hilton & Simmons, 2001). For example, Hoptman, Yates, Patalinjug et al (1999) asked psychiatrists at a maximum security forensic psychiatric hospital to predict which of 183 patients would become assaultative during a 3-month period, 2 weeks after the patients had been admitted. The authors found that although African American patients were significantly more likely to be predicted to commit an offence than their peers of other races, this was not born out in terms of actual offences. Elbogen, Williams, Doyoung et al (2001), in a study mentioned earlier on this review, found a significant interaction between the clinician and the patient's gender for judgments of dangerousness. They concluded that clinicians appeared to weigh PCL-SV cues differently based on their own and the patient's gender, in particular clinicians appeared to weigh more cues when

assessing patients of the opposite sex. Dernevik, Falkheim, Holmqvist et al (2001) compared the ratings on the HCR-20 and the PCL-SV for 8 patients resident in a high secure setting by nurses who knew the patients, and by expert professionals with no knowledge of the patients. They found that overall nurses rated patients statistically significantly higher on the HCR-20, and the PCL-SV. Furthermore the authors found that the nurses scoring of the HCR-20 was influenced by their scores on the Feelings Word Checklist, leading the authors to suggest that irrational influences, even on structured risk assessments such as the HCR-20 cannot be ignored.

#### **Case Vignette Studies.**

These are shown in table 27.

**Table 27**  
**Risk Assessment in Practice. Case Vignette Studies**

authors	Raters	Case vignette manipulation	Rating	Results
Quinsey & Ambtman, (1979)	4 psychiatrists, 9 teachers	Case summaries of 30 patients, manipulated on how they were presented:- offence information only; background history only; assessment information only; whole file	Likelihood of property offence and assaultive offence if discharged, seriousness of assaultive offence on 9 point scale	<ul style="list-style-type: none"> <li>Information about the offence and background history was important in predicting decisions of both groups, assessment information was not</li> </ul>
Montandon & Harding, (1984)	62 psychiatrists, 52 penal justice professionals, 42 medico-social professionals, 37 lay people	16 case histories manipulated on violence (present or absent) and mental illness (present or absent)	Dangerousness on 4 point scale	<ul style="list-style-type: none"> <li>Presence or absence of violent behaviour had a stronger effect on dangerous ratings than the presence or absence of mental illness.</li> </ul>
Jackson, (1986)	180 lay persons – visitors to Ontario Science Centre, repeated with judges and psychiatrists	18 vignettes containing 3 sets of manipulated information:- social Hx – +ve, -ve or absent; psychiatric assessment +ve, -ve or absent; offence – serious or minor	Dangerousness on 7 point scale	<ul style="list-style-type: none"> <li>Seriousness of offence and social history had main effects for judgment of dangerousness whilst psychiatric assessment had little impact</li> </ul>

Table 27 continued

authors	Raters	Case vignette manipulation	Rating	Results
Stevens & Brodsky, (1995)	120 mental health professionals – 18 psychiatrists, 60 psychologists, 42 social workers	12 case vignettes, manipulated on previous violence - no, threatened, actual; mental illness - paranoid schizophrenia, non paranoid schizophrenia; consequences to the predictor –high (high liability/ high publicity), low (low liability/ low publicity)	Dangerousness, likelihood of violent act, recommendation for release/detention on 9 point scale	<ul style="list-style-type: none"> <li>• Violence history and perceived consequences to predictor were significant main effects.</li> <li>• Patients in high consequence vignettes were not judged significantly more likely to be dangerous or to commit a violent act than the low consequence group but they were judged significantly more likely to require detention</li> <li>• Authors suggested that professionals may be acting to protect themselves when making conservative decisions about release or detention</li> </ul>
Slovic & Monahan, (1995)	191 students	32 case vignettes manipulated on gender, prior hospitalisation, delusions, prior assaultativeness, anger, impulsivity, psychopathy, social support	<p>Probability that subject would harm someone else during next 3 years</p> <p>Dangerous yes / no</p> <p>Whether coercion should be used if patient refused to enter hospital</p>	<ul style="list-style-type: none"> <li>• Prior assaultativeness, and anger were the strongest predictors of all 3 judgments</li> </ul>

**Table 27 continued**

<b>authors</b>	<b>Raters</b>	<b>Case vignette manipulation</b>	<b>Rating</b>	<b>Results</b>
<b>Dernevik &amp; Grann, (2004)</b>	<b>26 clinicians, 32 criminal law professionals, 26 controls (teachers)</b>	<b>16 case vignettes of a man detained in secure care being considered for release, manipulated on :-  perceived gain – high / low <sup>a</sup>; perceived loss – high/low <sup>b</sup></b>	<b>Inclination to release patient on a 6 point scale</b>	<ul style="list-style-type: none"> <li>• <b>Perceived loss only factor to significantly predict the inclination to discharge, irrespective of perceived gain.</b></li> <li>• <b>Authors suggest that attention paid to putting in place viable release plans (high perceived gain) may have very little impact on the decision to release a patient, when they have committed a serious offence.</b></li> </ul>

<sup>a</sup> Perceived gain.:- high gain -offender will return to live with his spouse and has employment arranged; low gain- offender is single, will live in a men's shelter and will be unemployed; <sup>b</sup>

Perceived loss is a consequence of the patient's index offence- thus high loss – patient had been admitted after killing the victim and was convicted of manslaughter; low loss – patient was admitted after causing minor injuries to the victim and was convicted of common assault

The key finding from these studies is that offence related information or violence history influenced judgments of dangerousness / likelihood of future violence more than mental illness or psychiatric / psychological information. Furthermore, the issue of liability / perceived consequence was found to be a powerful influence on decisions (Dernevik & Grann, 2004; Stevens & Brodsky, 1995).

### **Research comparing the decision making process of 'experts' to that of 'non experts'**

Several studies have attempted to look at how different professional groups make decisions / risk judgments, usually using case vignette methodology. Most of these studies have already been described in the previous section and therefore will only be mentioned briefly here. All studies have had similar results: - Psychiatrists seem to make decisions in a similar way to other professional groups and lay people.

Quinsey and Ambtman (1979) found that Teachers and Psychiatrists, weighed up information in a similar way when rating case summaries of patients resident in a maximum secure hospital. Jackson (1986) found that for lay people, Psychiatrists and Judges, seriousness of the offence and social history had a main affect on dangerousness ratings of case vignettes. Following on from this study, Jackson(1988) compared the ratings of 4 professional and one lay group of 8 video taped interviews of patients who were being assessed for their fitness to be interviewed. Subjects were asked to rate the interviews on dangerousness, presence of mental illness, criminal responsibility and treatability on a 7 point scale. They were also asked to rate their confidence in their judgments on 7 point scale. The author found, that for the issues of dangerousness, mental illness and criminal responsibility, the 5 groups tended to have similar mean ratings, with the mean ratings of Psychiatrists being similar to that of Social Workers, lay people and Nurses. Indeed in the case of dangerousness and mental illness ratings, it was lawyers who rated

significantly higher than the other groups. Despite similar mean ratings, Psychiatrists tended to be significantly more confident in their judgments, excepting judgement of treatability. Dernevik and Grann (2004) found that there were no significant differences in the decisions made between the clinicians, criminal law professionals and clinicians in their ratings of case vignettes.

**Studies aimed at eliciting directly from clinicians, the factors they consider most influential, when carrying out risk assessments.**

Cocozza and Steadman (1978) found that the reasons given by the Psychiatrists to justify their findings of dangerousness to the court, included the nature of the current crime, nature of previous offending, the patients previous mental health and the patients' behaviour subsequent to arrest – both antisocial behaviour and mental illness factors.

Menzies, Webster and Butler (1981) asked 52 Canadian Psychiatrists who were clinicians with forensic interests and responsibilities to rank order a list of 10 variables in terms of their perceived impact upon the individual Psychiatrist's "dangerous linked" decisions. They were ranked in the following order :-1) circumstance of present offence; 2) verbal and non-verbal cues picked up during interview; 3) criminal record; 4) seriousness of present offence; 5) childhood pathology; 6) social and family circumstances; 7) demographic characteristics (age, sex, socio economic status); 8) psychological testing; 9) predictive or actuarial devices; and 10) physical stature.

Montandon and Harding (1984) as part of their case vignette study already described (see vignette studies, table 27) invited raters to select from a list of 7 factors, the 2 which influenced their assessment of dangerousness the most. The factors rated in order of frequency were mental state, personality, personal history, social environment, nature of the offence, criminal record.

Stevens and Brodsky, (1995) in their manipulated case vignette study described earlier, (see vignette studies, table 27) asked subjects to identify factors that most influenced their ratings of the dangerousness to others. The 2 most frequently mentioned factors were history of violence and diagnosis or psychiatric symptomatology (even though symptomatology was found not to be related to judgment decisions).

Ford and Farrington, (1999) in their qualitative and observational study, examined the process of MDT decision making in a medium secure unit, particularly focusing on decisions made about '*parole*' (the decision to allow patients leave) either escorted or unescorted. The authors found through their observations of MDT meetings, that Consultants and Nurses dominated the discussion about whether or not to grant leave with little contribution from other members of the team. They noted that whilst there was no obvious conflict or disagreement between members of the team at the time of the MDT meeting, uncertainty was expressed in the research interviews. Throughout the MDT meetings there was no evidence of staff using 'objective' risk assessment tools and a similar picture emerged from interviews. Almost all the interviewee's mentioned specific symptoms or psychiatric morbidity as major factors in their assessment of a patient's dangerousness. It was noted that some staff admitted that they sometimes relied upon subjectivity, intuition and gut feeling when assessing dangerousness.

Elbogen, Mercado, Scalora et al (2002) asked 134 mental health professionals (Nurses, Psychiatrists, Psychologists, masters level Social Workers, Psychologists, Para Professional staff) from 4 psychiatric facilities (covering forensic, acute, chronic and crisis mental health), to rate a number of cues in degrees of relevance from 0 – 10 in the assessment of violence risk in their treatment context. The authors derived the cues from the V-RAG, the HCR-20 and the Macarthur risk assessment study, as well as from interviews conducted with 5 mental health professionals who were not participants in the study.



Ratings of risk factors were rank ordered according to psychiatric facility. Of note, history of violent behaviour was ranked in the top 5 for clinicians across each of the 4 sites and history of arrest was rated in the top 5 at 3 of the sites. The remaining top ranking factors were behavioural variables' (that is physical aggression whilst in care) at all 4 sites, and impulsive behaviour whilst in care at 3 sites. Risk factors ranked as least relevant were social history variables - for example across all 4 sites, early maladjustment, educational history, and marital status were perceived as one of the least 5 relevant factors. Work history was ranked as the one of the least relevant factors over 3 sites.

Sturidsson, Haggard-Grann, Lotterberg et al (2004) examined 103 ratings of 51 patients on the SORM (Structured Assessment and Community Risk Monitoring) (Grann, Haggard-Grann, Hiscoke, *et al*, 2000) rated by the patients' key workers. (Psychologists, Nurses and Social Workers). This is an instrument covering 27 factors relating to current service use, social situation, social network, clinical factors and subjective ratings. The rating is done in 2 parts. The rater first has to make a decision as to the presence of a factor according to operationalised criteria. Then whether an item is present or absent, the assessor must rate whether or not they believe the item increases or decreases risk. For example, an individual may be rated as not having psychotic symptoms. Therefore this will be rated as absent. The assessor must then rate whether or not they think the absence of psychotic symptoms increases, decreases or has no effect on the patients' risk of violent behaviour. They must also make a written comment to justify their rating.

The authors ordered the SORM variables by rank- the rank order being established by analysing which of the variables were perceived to exert a risk effect (in either direction, positive or negative ) in most of the cases, irrespective of whether the variable was coded absent or present.

They found that the top 5 ranked items were lack of insight, lack of treatment motivation, psychiatric institutional treatment, professional support and contacts and substance misuse. The authors noted that 7 of the 10 clinical factors appeared in the top half of the rankings indicating that clinicians perceived them to exert a much larger risk effect than other items. In contrast, 7 of the 9 social situation and social network items were in the bottom half of the rankings. The authors summarised that the factors that were perceived as important to the risk of violent recidivism were mainly those factors close to the clinician's area of responsibility and expertise.

### **Summary of clinical decision making studies**

Drawing the results of the 4 types of clinical decision making studies together it would seem that:-

1. Biases operate when clinicians make decisions relating to risk,
2. Offence related variables, particularly seriousness of the index offence, and history of violent offending, appear to be highly influential on the decision making process of clinicians This is in keeping with the findings of the comparative studies described earlier.
3. Clinicians place a lot of weight on patients' progress and presentation in hospital and pay less attention to social situation variables and to actuarial assessments of risk. Again these findings are consistent with those of the comparative studies described earlier.
4. Perceived liability / perceived consequences may be a powerful influence on decision making
5. Psychiatrists or other clinicians appear to make decisions in a similar way to other professional groups and lay people when considering issues of risk.

## **6.5 Study methodologies**

The methodology utilized has been varied. Some studies have used a case vignette methodology, others have examined decisions made with '*real life*' patients, and others have been more exploratory, asking clinicians about factors that they think have influenced their decisions.

All approaches have advantages and disadvantages. The advantage of using case vignettes is that factors determined by the researchers as possibly influencing clinical decision making about risk / dangerousness, can be systematically manipulated. The case vignette methodology allows for tight control of factors, other than those which are being specifically investigated, that might influence the risk assessment / decision process. (Jackson, 1989). However whilst this is seen as appropriate by some researchers, others have criticized the approach for the very same reason (Sturidsson, Haggard-Grann, Lotterberg, *et al*, 2004). They have suggested that even when using actual cases as vignettes, in contrast to '*real life*' risk assessment where a wealth of information is usually available to judges, the information presented in case vignettes is very limited. Furthermore the judges are not responsible / have had no clinical contact with the patients they are making decisions about and thus there are no consequences to the decisions that they make. This has led these authors to question the generisability of the conclusions drawn from these studies.

Another approach has been to retrospectively compare groups of individuals who have been judged as dangerous with those that have not, the underlying assumption being that the distinguishing variables influenced clinicians thinking when making their judgments. Despite this being one of the main methodologies used to look at how decisions about risk / dangerousness are made, it is important to acknowledge that the variables on which the 2 groups are compared are *determined by the researchers*, and tend to be those that are

easily accessible through note review or psychopathology rating scales, thus there be other variables which influence judgments of risk but which are not examined. In addition, some studies compared the groups on numerous variables, with no a- priori hypotheses. (Grant, Ogloff & Douglas, 2000; Rogers, Sewell, Ross, *et al*, 1995). This increases the likelihood of finding statistically but not clinically significant differences between the groups. This might explain the findings of Grant, Ogloff *et al*, 2000 study (see table 25) where the results do not make clinical sense. Finally, some studies had small sample sizes, thus increasing the probability of a type II error.

Asking clinicians about what they think influences their assessment of risk is another approach that has been used. The main limitation of a number of these studies is that respondents were limited to the list of variables given by researchers from which to choose or rank. There may have been other variables that influenced decision making that were not presented.

Only one study has investigated the risk assessment process as it occurred in practice (Sturidsson, Haggard-Grann, Lotterberg, *et al*, 2004), that is by clinicians making judgments about their own patients, whom they have known for some time. However this study was carried out on a community sample, and did not examine the influence of historical variables, or other risk assessment tools in making judgments about patients' risk.

Much is spoken these days about multidisciplinary team working and the contribution of all disciplines to risk assessment. However, apart from the Ford and Farrington (1999) study, very little attention has been paid to this issue. None of the reliability studies undertaken examined the agreement between multi disciplinary team members of the risk an individual might pose.

## **6.6 Drawing together and implications**

### **Drawing together**

Drawing the results of the 3 main streams of research together (comparative studies, reliability studies and clinical decision making studies), it would seem that:-

1. Clinicians /other professionals may associate risk of harm to others / dangerousness with
  - i. symptomatology such as hostility, irritability, rage and anger; abnormalities in thinking; and impulsivity and poor behavioural control and
  - ii. criminological variables such as history of violence, previous criminal history, severity of current offence and violent current offence
2. History of violence and seriousness of the index offence is a factor that strongly influences risk assessment / risk judgments.
3. When making release decisions, or considering the risk patients may pose when they are in the community, offence factors, treatment factors (such as compliance, response to treatment) and institutional behaviour factors seem to be strong influencers, whereas social factors seem to have less impact. Perceived liability may also be a key influencing factor when making judgments about release.
4. Clinicians and other decision makers may not pay attention to actuarial measures of risk even when they are easily accessible.
5. The inter rater reliability between clinicians when making judgments of risk is low to moderate

6. Psychiatrists and other clinicians may think in a similar way to other professional groups and lay persons when they make decisions about risk.

### **Implications**

So what implications do the above findings have for patient care? Firstly they suggest that mental health professionals may not have the specialist expertise or knowledge they are attributed when asked to give opinions on risk. Secondly, if predictions of risk are to be accurate, they must first be reliable. The finding that reliability of assessments is at the best moderate, suggests that clinicians may not weigh information in the same way when considering risk. Thirdly, the findings suggest that clinicians tend to be influenced primarily by offence factors, treatment factors and the patients institutional behaviour, when making risk decisions, with a tendency to put much less weight on other historical or social factors, even though these are known to be empirically related to risk of harm to others. This is mirrored by a lack of attendance to actuarial measures, even when they are easily accessible. Fourthly, studies suggest that clinicians may be influenced by the perceived consequences of making the 'wrong' decision resulting in cautious approach when considering patients suitability for discharge or release. All these factors could lead clinicians to make inaccurate assessments of risk, leading to either to the release of or failure to admit a potentially dangerous individual or, which is probably more common, the inappropriate and continued detention of individuals who are in actuality less 'dangerous' than they are perceived to be.

## **Risk assessment in practice – literature review**

### **Summary points**

- **Although there has been extensive research on how risk assessment *should* be carried out, there is a paucity of research on how risk assessment *is* actually carried out in practice**
- **Studies investigating this fall into 3 broad areas**
  - **Studies comparing groups of individuals judged as dangerous with those judged as not dangerous**
  - **Studies investigating the reliability of risk judgments**
  - **Studies investigating clinical decision making**
- **The results of these studies have suggested:-**
  - **Clinicians /other professionals may associate risk of harm to others / dangerousness with**
    - **symptomatology such as hostility, irritability, rage and anger; abnormalities in thinking; and impulsivity and poor behavioural control and**
    - **criminological variables such as history of violence, severity of current offence, violent current offence, previous criminal history.**
  - **When making release decisions, or considering community risk offence factors, treatment factors and institutional behaviour factors seem to be strong influencers, other historical and social factors, less so. Perceived liability may also be a strong influencer**

**Risk assessment in practice – literature review**

**Summary points continued**

- **Clinicians and other decision makers do not pay attention to actuarial measures of risk even when they are easily accessible.**
- **The inter rater reliability between clinicians when making judgments of risk is at best moderate**
- **Psychiatrists and other clinicians may think in a similar way to other professional groups and lay persons when they make decisions about risk**

**These factors could lead clinicians to make inaccurate assessments of risk resulting in either**

- **The release of or failure to admit potentially dangerous individuals or**
- **The inappropriate and continued detention of individuals who are in actuality less 'dangerous' than they are perceived to be.**



# **CHAPTER 7**

## **AIMS AND HYPOTHESES**

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### **AIMS AND HYPOTHESES**

Part II of this study aimed to improve / expand on previous studies investigating the process of risk assessment, by attempting to examine the issue as it was carried out in the 'real world'; that is by asking clinicians to make risk judgments about their own patients. Linked to part I of the study, one of the aims of this part of the project was to investigate whether there was a difference between the SV and RV groups in terms of risk assessment by clinical team members (see aim 5)

The specific aims of the study are outlined below. Where deemed appropriate, hypotheses relating to aims were made on the basis of existing research or clinical observations.

#### **Aim 1**

**To examine the correlation between actuarial assessments of risk of violent re-offending and**

- 1. Clinician's judgments of risk of violent re-offending**
- 2. Clinician's judgments about suitability of their patients for discharge  
(or transfer)**

Hypothesis- Correlation between clinical judgments and actuarial assessments of risk would be low.

#### **Aim 2**

**To establish the agreement between members of the multidisciplinary team (MDT) in their judgments of the risk of violent re-offending of their patients, if they were released from hospital**

Hypothesis - Agreement between members of the patients' clinical team when making judgments of risk would be moderate – high.

### **Aim 3**

**To establish clinicians' confidence in their judgments of risk.**

No hypotheses were made in relation to this aim

### **Aim 4**

**To explore the factors that influenced clinicians when making judgments of their patients' risk of re-offending violently.**

Hypothesis - clinicians would be influenced more by history of violence, seriousness of the offence, behaviour in hospital and treatment response when making their judgments of risk, than other historical and social variables; the influence of actuarial risk assessment tools would be minimal.

### **Aim 5**

**To investigate the presence / absence of an association between the RV / SV grouping of offenders (from Part I) and**

- 1. The level of agreement within the clinical team when making judgments of risk.**
- 2. The degree of confidence with which team members held their judgments.**

Hypothesis - compared to when making judgments about RV patients, when making judgments about the risk SV patients may present on discharge, there would be less agreement within the team, and clinicians would be less confident of their judgments.

# **CHAPTER 8**

## **METHODOLOGY**

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### **METHODOLOGY**

#### **8.1 Data collection**

Data relating to clinicians' judgments of the risk of violent re-offending of their patients if they were released, their confidence in their judgments, and the factors that they considered when making their judgments, were collected through a questionnaire. Due to the lack of any appropriate previously published measure, the 'Risk perception questionnaire' was designed by the author specifically for this project. The questionnaire is attached as appendix I.

Actuarial assessments of risk were made using the Violence Risk Appraisal Guide, VRAG (Harris, Rice & Quinsey, 1993; Quinsey, Harris, Rice, *et al*, 1998). This is an actuarial risk assessment designed for predicting violent behaviour in mentally disordered men and is also applicable to men in prison populations. The VRAG score is derived from 12 variables that are considered to best predict violent outcome (Webster, Harris, Rice, *et al*, 1994) Final scores on the VRAG are used to place the individual into a risk category where their risk of violent recidivism can be expressed as a percentage probability over a 7 and a 10 year period. The VRAG has international validation, for both violent and sexual recidivism (Barbaree, Seto, Langton, *et al*, 2001; Cooke, Michie & Ryan, 2002; Harris, Rice, Quinsey, *et al*, 2003; Kroner & Mills, 2001; Sjosted & Langstrom, 2002).

VRAG assessments were taken from the DSPD and Arnold Lodge database and were collected by researchers independent to myself.

## **8.2 The questionnaire**

### **Questionnaire contents**

Question 1 asked professionals a) to give their judgment of their patient's risk of re-offending violently or sexually, if they were discharged from hospital that day choosing from responses of '*low*', '*medium*', '*high*', '*very high*'; and by indicating a percentage risk; b) to rate their confidence in their judgment of risk choosing from responses of '*not at all*', '*a little*', '*quite*', '*very*'; and c) to state whether or not they thought that the rest of the clinical team would agree with them, choosing from responses of '*yes*', '*no*', '*don't know*'.

Question 2 asked professionals to firstly spend a few minutes to reflect on the main factors they thought influenced the judgment they had just made, and then to rate 45 factors on a scale of 0 to 5 as to the degree to which they considered each factor to have been influential / important in making their judgment. In addition, they were asked to comment on any other factors in addition to the 45 rated, that they thought had influenced their judgment.

Question 3 asked professionals to indicate what recommendation they would make to a Mental Health Review Tribunal with regard to the suitability for discharge of their patient, choosing from responses '*remain in high security*', '*transfer to medium security*', '*conditional discharge*', '*absolute discharge*', **Question 3 was only relevant for Rampton patients.**

### **Development of the questionnaire**

Due to the lack of a previously published appropriate measure, the author was compelled to design and use a new questionnaire specifically for this project, and therefore to use a measure of unknown reliability and validity. **For this reason the study can only be regarded as 'exploratory' and its results must be regarded with caution.**

However questions 1A1a and 1B1a asked respondents to estimate their patients risk of re-offending in terms of risk categories and question 1A1b and 1B1b in terms of percentage risk. The risk category was the variable of interest but percentage risk was also asked for, to provide a measure of validity for the risk category estimations. That is, if there was a poor association between risk categories and risk percentages, then one might question the validity of the risk category ratings. Using Spearman's Rho, the correlation between risk category judgments and percentage risk was high for all professional groups (RMOs  $r=0.91$ ,  $p<0.001$ ; SWs  $r=0.95$ ,  $p<0.001$ ; Psychologists  $r=0.90$ ,  $p<0.001$  and Nurses  $r=0.91$ ,  $p<0.001$ ).

The majority of factors listed in question 2, were taken from several well known risk assessment tools for the assessment and prediction of violent and or sexual offending including the VRAG, (Quinsey, Harris, Rice, *et al*, 1998), Risk Matrix 2000 (Thornton, Mann, Webster, *et al*, 2003), Static –99 (Hanson & Thornton, 1999), HCR-20 (Webster, Douglas, Eaves, *et al*, 1997) and the MacArthur Violence Risk Assessment Study (Monahan, Steadman, Silver, *et al*, 2001). These factors are historical/static and clinical/dynamic factors that have been shown to be empirically related to violent and sexual recidivism. Several other factors were added to question 2 on the basis of pilot respondents' comments (the piloting of the questionnaire is discussed later). These factors covered the patients' behaviour in hospital (verbal and physical aggression and time spent in restraint / seclusion); the attitude / level of remorse shown by the patient towards their offence and their denial/ acceptance of responsibility; clinicians' understanding of the offence; patients ability to form therapeutic relationships and the degree of their interpersonal difficulties; clinicians experience with similar patients; and the patients relationship with their family. In order to facilitate testing of hypotheses, each of the factors was labeled as historical (H), social (S), treatment (T), assessment (A) and other (O) (see table 28), although this was not shown on the questionnaire.

The questionnaire was initially piloted on 20 professionals (outside of the professionals making judgments in the study) – a mixture of Psychiatry, Psychology, Social work and Nursing. The following aspects of the questionnaire were assessed:- 1) the content of the questionnaire, 2) the understandability of the questions asked, 3) any difficulties in answering the questions or completing the questionnaire and, 4 )the layout, format and wording of the questions.

The pilot questionnaire was received well and the feedback from the professionals taking part in the pilot was that it was easy to follow and complete and made clinical sense.



**Table 28**  
**Labelling of questionnaire risk factors**

<b>Historical factors</b>		<b>T24</b>	<b>Nature of illness e.g. stable /relapsing</b>
H1	Current age	T25	Response to treatment
H2	Lived with parents till 16	T26	Compliance with treatment
H3	Parental history of drug / alcohol &/or criminal history	T27	Ability to form therapeutic relationships
H4	Early maladjustment, history of conduct disorder	T28	Degree of interpersonal difficulties
H6	Alcohol/drug misuse history	T29	Attitudes e.g. pro criminal attitudes
H7	Employment history	T30	Violent fantasy history
H9	Violent offence/ behaviour history	T31	Ability to cope under stress
H10	Sexual offence/behaviour history	T32	Degree of institutionalisation
H11	Non contact sexual offence history	T43	Compliance with supervision if discharged
H12	Non violent offence history	<b>Behaviour in hospital</b>	
H13	Age at first violent behaviour / offence	B39	Physical aggression in hospital
H14	Age at first sexual offending/behaviour	B40	Verbal aggression in hospital
H15	Age at index offence	B41	Time spent in restraint / seclusion
H16	Seriousness of offence, degree of victim injury	B42	Impulsive behaviour in hospital
H17	Gender of victim	<b>Assessment measures</b>	
H18	Victim relationship	A35	PCL-R assessment results
H33	Failure on previous discharge attempts	A36	SCJ (Structured Clinical Judgment) results
<b>Social factors</b>		A37	Actuarial assessment results
S5	Marital status/ relationship history	A38	Anger rating results
S8	Relationship with family	<b>Other</b>	
S44	Exposure to destabilisers if discharged	O34	Previous experience with similar patients
S45	Degree of personal support if discharged		
<b>Treatment factors</b>			
T19	Denial/acceptance of responsibility		
T20	Attitude to offence/ level of remorse		
T21	Clinicians' understanding of the offence/ offending pattern		
T22	Patient's insight into offence / offence pattern		
T23	Current symptoms of mental illness		

Attempts were made to estimate the test – retest reliability of the questionnaire by asking members of the PDU multidisciplinary team at Arnold Lodge to complete the questionnaire on 2 occasions, separated by 2 weeks. However this proved unsuccessful. One member of the team was unable to complete the second questionnaire and the other team members approached returned the questionnaires several weeks after the initial questionnaire, during which time their opinion as to the risk their patient would present on discharge could have changed. Therefore an estimation of test – retest reliability was not undertaken.

### **Questionnaire administration**

The RMO (Responsible Medical Officer), Psychologist, Social Worker and Named Nurse of each of the subjects in the sample used in first part of the study, were approached to take part in the study directly by the author through an initial interview.

The project was explained to them and informed consent obtained. Questionnaires were then sent in sequence to professionals attached to each consultant team and they were asked to return the questionnaires within 2 weeks. If questionnaires had not been returned within one week, a polite reminder was sent to remind of the 2 week deadline.

The questionnaire was designed to investigate professionals' perceived risk of future re-offending for subjects who were *current in patients*, thus at the Rampton site, members of the multidisciplinary team were invited to complete the questionnaire on all subjects (as they were all current in patients). At the Arnold Lodge site, the questionnaire was completed only on those subjects who were current in patients, not on those subjects who had been discharged.

### **Questionnaire analysis**

The questionnaire was designed to cover both violent and sexual offenders (hence the question 1B relating to sexual offending behaviour, and factors in question 2 relating to sexual offending) but because individuals with a sexual index offence were ultimately excluded from the final sample (see Part I, chapter 3), data relating to question 1 B and relating to the factors 'sexual offence/ behaviour history'; 'non contact sexual offence history', 'age at first sexual offending / behaviour' and 'victim relationship' in question 2, were excluded from analysis. This left 41 factors.

### **8.3 Ethical approval and consent**

Ethical approval was obtained from the Rampton Hospital Ethics Committee and the North Nottinghamshire Local Research Ethics Committee. Informed consent was obtained from all professionals involved in this part of the study

### **8.4 Statistical analyses**

The data were analysed using the statistical package SPSS. Differences between groups for categorical variables were estimated using Chi squared tests and where appropriate Odds Ratios with 95% confidence intervals were also calculated. The remaining, non categorical data were skewed therefore non parametric tests were used for hypothesis testing – (Mann Whitney U tests for 2 independent groups, and Friedman's test for more than 2 linked groups). Where deemed appropriate, confidence intervals for the difference between means were also calculated, (despite the data not being normally distributed) because they give a good indication of the precision of the estimation of the difference between the 2 groups (Gardner & Altman, 1986). Intra class correlations (ICC) were used to estimate the level of agreement or reliability between judgments made by professionals. Spearman's Rho was used to estimate the correlation between two ordinal measures.

When conducting analyses of the data, I have frequently compared professional groups with each other for example Psychologists with RMOs. However it is important to acknowledge at this stage, that because of the naturalistic design of the study, not all patients were rated by the same professional within each professional group (that is not all patients were judged by the same Psychiatrist, Social Worker, Nurse and Psychologist) and the number of patients judged by professionals within each professional group was also different (for example 19 of the 41 cases rated by a Social Worker were rated by 1 Social Worker, and 10 of the 40 cases rated by an RMO were rated by 1 RMO). This means that the results of all comparisons between professional groups have to be treated with caution because differences may be due to inherent differences in rating between individuals within a professional group, (for example there may be some individuals who are particularly cautious and rate all patients as high risk) than due to differences between groups because of profession. This is particularly important if there is one professional who has rated a large number of cases, within the professional group.

# **CHAPTER 9**

## **RESULTS**

## CHAPTER 9

### RESULTS

#### **9.1 Questionnaire response rate**

Excluding those already discharged from the PDU (n=7), The RMO, Named Nurse, Psychologist and Social Worker of each of the 44 remaining patients (4 from Arnold Lodge and 40 from Rampton) were invited to complete a risk perception questionnaire for that patient, giving a possible maximum of 176 (4x44) questionnaires.

One hundred and fifty six questionnaires were completed in total (88.6 % of the possible total of 176). Table 29 gives a break down of respondents according to professional group.

**Table 29**  
**Questionnaire respondents by professional group**

<b>Professional Group</b>	<b>Number of raters</b>	<b>Number of patients on whom questionnaires completed were completed</b>
<b>R. M. O.</b>	<b>7</b>	<b>40 (91%)</b>
<b>Social Work</b>	<b>7</b>	<b>41 (93%)</b>
<b>Psychologist</b>	<b>8</b>	<b>33 (75%)</b>
<b>Nursing</b>	<b>26</b>	<b>42 (96%)</b>

Of the 44 patients, 28, (63.6%) had questionnaires completed by all professionals within their clinical team, a further 12 (27.3%) had questionnaires completed by 3 professionals and 4 patients had questionnaires completed by only 2 professionals in their team. Before going on to discuss the results, it should be noted that not all questions on the questionnaire were completed by each respondent.

## **9.2 Association between clinical and actuarial judgments**

Table 30 shows that for the Rampton patients, there was a moderate, statistically significant association between clinicians' judgments of their patients' risk of re-offending violently if they were released from hospital, and their views about their suitability for transfer or discharge. The higher the risk patients were judged to pose, the less likely they were to be considered suitable for transfer or discharge.

**Table 30**  
**Correlation between clinicians' judgments of their patients' risk of re-offending and their views as to their suitability for transfer or discharge.**

	n <sup>b</sup>	Spearman's Rho	p <sup>a</sup>
RMO	26	0.57	0.02*
SW	38	0.63	0.01*
Psychologist	27	0.76	<0.01*
Nurse	39	0.56	<0.01*

a p = statistical probability b n = number of patients for whom each professional group had rated both risk of re-offending and suitability for transfer or discharge.; \* = statistically significant

Table 31 shows the correlation between clinicians' judgments of their patients' risk of violent re-offending and VRAG risk categories.

**Table 31**  
**Correlation between clinicians' judgments of re-offending and VRAG risk categories.**

	n <sup>b</sup>	Spearman's Rho	p <sup>a</sup>
RMO	33	0.30	0.10
SW	34	-1.16	0.34
Psychologist	26	0.42	0.04*
Nurse	34	-0.01	0.95

a p = statistical probability b n = number of patients for each professional group for whom there was a VRAG score and a rating of risk of re-offending available; \* =statistically significant

Overall, correlations were low. Psychologists had the best and only statistically significant correlation( $r=0.42$ ,  $p=0.034$ ). The correlation between clinicians' views on their patients' suitability for transfer or discharge from high security

and VRAG risk categories is shown in table 32. Similar to the finding above, correlations were low and non significant.

**Table 32**  
**Correlation between clinicians' views on suitability for transfer or discharge and VRAG risk categories.**

	n <sup>b</sup>	Spearman's Rho	p <sup>a</sup>
<b>RMO</b>	<b>21</b>	<b>0.05</b>	<b>0.79</b>
<b>SW</b>	<b>31</b>	<b>-0.25</b>	<b>0.18</b>
<b>Psychologist</b>	<b>21</b>	<b>0.39</b>	<b>0.08</b>
<b>Nurse</b>	<b>31</b>	<b>0.14</b>	<b>0.46</b>

a p = statistical probability b n= number of patients for each professional group for whom there was a VRAG score and a rating of suitability for transfer or discharge available

### **9.3 Agreement between clinical team members in their judgments of the risk of re-offending of their patients**

The agreement within clinical teams as to the risk of violent re-offending that their patient would pose if discharged, for the 28 patients for whom the judgment was made by all of their clinical team, and for the 12 patients for whom the judgment was made by 3 members of their team, is shown in table 33.



**Table 33**

**Agreement between clinical team members in their judgments of the risk of re-offending of their patients**

Number of professionals in agreement	Number of patients	
Agreement for the 28 patients on whom judgments were made by all their clinical team		
All 4 professionals agree	2	7%
3 professionals agree	5	18%
2 professionals agree	19	68%
No agreement	2	7%
Agreement for the 12 patients on whom judgments were made by 3 of their clinical team		
All 3 professionals agree	0	0%
2 professionals agree	9	75%
No agreement	3	25%

Agreement was low. For the 28 patients for whom judgments were made by all their clinical team, in only 2 cases did the whole team agree and in only a quarter of cases, did at least 3 professionals agree. The intraclass correlation (ICC) for individual raters (single measure intraclass correlation) was very low at 0.22 ( $p=0.004$ , 95% CI 0.05 - 0.44).

ICCs for the 6 pairs of professional groups for the 28 cases are shown in table 34. The only statistically significant correlations were between RMOs and SWs and RMOs and Nurses.

**Table 34**

**ICC for the 6 pairs of professional groups for ratings of risk of re-offending**

<b>Professional group</b>	<b>ICC</b>	<b>p<sup>a</sup></b>	<b>95% CI<sup>b</sup></b>
<b>RMO vs. SW</b>	<b>0.30</b>	<b>0.04*</b>	<b>0.04; 0.59</b>
<b>RMO vs. Psychologists</b>	<b>0.17</b>	<b>0.20</b>	<b>-0.22; 0.51</b>
<b>RMO vs. Nursing</b>	<b>0.40</b>	<b>0.02*</b>	<b>0.03; 0.67</b>
<b>SW vs. Psychologists</b>	<b>-0.08</b>	<b>0.66</b>	<b>-0.42; 0.29</b>
<b>SW vs. Nursing</b>	<b>0.24</b>	<b>0.09</b>	<b>-0.12; 0.55</b>
<b>Nurse vs. Psychologist</b>	<b>0.26</b>	<b>0.10</b>	<b>-0.14; 0.57</b>

<sup>a</sup> p=statistical probability; <sup>b</sup> 95%CI = 95% CI for the ICC; \* = statistically significant result

### Perceived agreement

Clinicians' perceived agreement, that is, whether or not they felt that the rest of the clinical team would agree with their judgment of risk is shown in table 35.

**Table 35**

**Clinicians' perceived agreement, that is whether or not they felt that the rest of the clinical team would agree with their judgment of risk, by professional group**

	Yes		No		Don't know	
RMO	24	86%	0	0%	4	14%
SW	25	89%	2	7%	1	4%
Psychologist	17	61%	5	18%	6	21%
Nurse	19	68%	0	0%	9	32%

In contrast to the actual levels of agreement, perceived agreement was much higher. For example, RMOs and SWs thought that their co-team members would agree with them in their judgments, for most of their patients. Psychologists and Nurses were less confident, expressing doubt for approximately 1/3 of their patients.

### 9.4 Confidence in ratings of risk of re-offending

The 156 ratings of confidence made by all the professionals combined, constituted 4 (2.5%) ratings of '*not at all confident*', 20 (12.7%) ratings of '*a little confident*', 92 (58.6%), ratings of '*quite confident*', and 40 (25.4%) ratings of '*very confident*'. Thus the majority of professionals were at least '*quite confident*' in their judgments of risk.

Table 36 shows the correlation between clinicians' judgments of the risk of re-offending and their confidence in their judgments.

**Table 36**

**Correlation between clinicians' judgments of the risk of re-offending and their confidence in their judgments.**

	n <sup>b</sup>	Spearman's Rho	p <sup>a</sup>
RMO	40	0.40	0.01*
SW	41	0.51	<0.01*
Psychologist	33	0.45	0.01*
Nurse	42	0.33	0.03*

a p = statistical probability b n = number of patients for each professional group for whom ratings of risk and ratings of confidence were available; \* = statistically significant

Clinicians' confidence was moderately correlated with their judgment of the patients' risk of re-offending:- the higher the judged risk of re-offending, the more confident clinicians were of their judgments.

### **9.5 Factors influencing clinicians' judgments of the risk of re-offending**

Table 37 shows the mean ratings of each of the 41 risk factors rated in question 2 of the risk questionnaire, according to professional group. Tables 38 and 39 show the 10 factors with the highest and lowest mean ratings, for each professional group.

**Table 37**  
**Ratings of factors influencing risk judgments, according to professional group**

	Factor	RMO		SW		Psychol		Nurse	
		m <sup>a</sup>	s.d. <sup>b</sup>	m	s.d	m	s.d	m	s.d
H	Current age	2.37	1.82	2.87	1.66	2.79	1.78	1.33	1.84
H	Lived with parents till 16	1.53	2.02	1.76	1.76	2.09	2.09	0.12	0.51
H	Parental history of drug / alcohol &/or criminality	1.12	1.74	1.78	1.72	1.79	1.99	2.00	2.13
H	Early maladjustment, history of conduct disorder	2.86	1.82	3.73	1.52	2.90	1.92	2.12	2.01
S	Marital status/ relationship history	3.14	1.82	3.10	1.82	3.00	1.98	2.14	2.02
H	Alcohol/drug misuse history	2.14	1.82	2.54	2.12	3.66	1.74	3.09	2.09
H	Employment history	2.14	1.82	1.58	1.75	2.36	1.95	1.21	1.76
S	Relationship with family	3.11	1.79	3.73	1.61	3.03	1.88	2.59	2.00
H	Violent offence/ behaviour history	4.37	1.28	4.63	0.94	4.78	0.60	4.42	1.23
H	Non violent offence history	2.54	1.82	2.00	1.76	3.00	2.15	1.61	2.03
H	Age at first violent behaviour / offence	2.85	1.68	3.65	1.71	3.42	1.75	1.57	2.04
H	Age at index offence	2.94	1.79	3.83	1.48	3.34	1.81	1.98	2.09
H	Seriousness of offence, degree of victim injury	4.02	1.48	4.64	0.94	4.03	1.29	4.28	1.23
H	Gender of victim	3.11	1.84	3.19	2.16	3.15	1.70	3.17	2.03
T	Denial/acceptance of responsibility	4.26	0.98	4.22	1.31	3.64	1.98	3.97	1.42
T	Attitude to offence/ level of remorse	4.42	0.61	4.29	1.42	3.67	1.83	4.02	1.35
T	Clinicians' understanding of offence/ offending pattern	4.48	0.66	4.14	1.20	4.66	0.59	2.88	1.93
T	Patient's insight into offence / offence pattern	4.26	0.61	4.09	1.33	4.27	1.59	4.14	1.26
T	Current symptoms of mental illness	1.78	1.75	2.00	1.71	2.43	2.00	2.19	2.21
T	Nature of illness e.g. stable /relapsing	2.41	2.06	2.80	1.87	2.64	1.87	3.00	2.09
T	Response to treatment	4.03	0.94	4.66	0.65	4.09	1.31	4.12	1.29

Table 37 continued

	Factor	RMO		SW		Psychol		Nurse	
		m	s.d	m	s.d	m	s.d	m	s.d
T	Compliance with treatment	3.91	1.15	4.61	0.78	4.15	1.15	3.95	1.39
T	Ability to form therapeutic relationships	3.97	1.19	4.39	1.14	3.97	1.49	3.90	1.52
T	Degree of interpersonal difficulties	3.74	1.56	4.27	1.28	3.90	1.66	4.05	1.41
T	Attitudes e.g. pro criminal attitudes	3.00	2.06	3.37	1.73	3.57	1.41	3.09	2.02
T	Violent fantasy history	2.47	1.86	2.85	2.03	3.50	2.14	2.74	2.17
T	Ability to cope under stress	3.54	1.67	3.65	1.60	3.60	1.75	4.09	1.32
T	Degree of institutionalisation	2.14	1.92	3.44	1.58	2.48	2.05	2.69	2.09
H	Failure on previous discharge attempts	2.47	2.17	2.70	2.24	3.03	2.16	1.81	2.28
O	Previous experience with similar patients	2.00	1.70	1.58	2.06	2.18	2.07	1.05	1.57
A	PCL-R assessment results	1.62	1.67	1.07	1.83	3.76	1.95	0.34	0.79
A	Structured clinical judgment assessment results	1.45	1.65	1.22	1.86	3.69	2.02	0.36	0.99
A	Actuarial assessment results	1.34	1.53	1.23	2.34	3.61	2.03	0.30	0.97
A	Anger rating results	1.17	1.29	1.66	2.14	1.54	1.97	0.61	1.20
B	Physical aggression in hospital	2.57	1.83	3.17	1.74	3.27	1.94	2.50	2.16
B	Verbal aggression in hospital	2.83	1.62	3.44	1.70	3.03	2.00	2.45	2.08
B	Time spent in restraint / seclusion	1.27	1.73	1.37	1.66	2.30	2.10	1.04	1.87
B	Impulsive behaviour in hospital	2.82	1.96	3.36	1.67	3.30	1.78	2.90	2.16
T	Compliance with supervision if discharged	2.79	1.78	4.26	1.05	3.57	1.89	2.98	2.19
S	Exposure to destabilisers if discharged	3.53	1.72	3.63	1.67	3.54	2.01	3.19	2.14
S	Degree of personal support if discharged	2.91	1.82	3.41	1.67	3.42	2.05	3.38	2.04

a m=mean; b s.d =standard deviation; H= historical factor, T= treatment response factor, B= behaviour in hospital, A= assessment information O = other. Note light grey shading indicates means  $\leq 2$ , dark grey shading indicates means  $\geq 4$

**Table 38**  
**10 factors with the highest mean ratings, by professional group**

RMO				SW				Psychologist				Nurse			
		m <sup>a</sup>	s.d. <sup>b</sup>			m	s.d			m	s.d			m	s.d
T	Clinicians' understanding of the offence	4.48	0.66	T	Response to treatment	4.66	0.65	H	Violent offence/behaviour . History	4.78	0.6	H	Violent offence/behaviour. history	4.42	1.23
T	Attitude to offence/ remorse	4.42	0.61	H	Seriousness of offence	4.64	0.94	T	Clinician's understanding of the offence	4.66	0.59	H	Seriousness of offence	4.28	1.23
H	Violent offence/behaviour history	4.37	1.28	H	Violent offence/behaviour history	4.63	0.94	T	Patient's insight into offence	4.27	1.59	T	Patient's insight into offence	4.14	1.26
T	Denial/acceptance of responsibility	4.26	0.98	T	Compliance with treatment	4.61	0.78	T	Compliance with treatment	4.15	1.15	T	Response to treatment	4.12	1.29
T	Patient's insight into offence / offence pattern	4.26	0.61	T	Ability to form therapeutic relationships	4.39	1.14	T	Response to treatment	4.09	1.31	T	Ability to cope under stress	4.09	1.32
T	Response to treatment	4.03	0.94	T	Attitude to offence/ remorse	4.29	1.42	H	Seriousness of offence	4.03	1.29	T	Degree of interpersonal difficulties	4.05	1.41
H	Seriousness of offence	4.02	1.48	T	Degree of interpersonal difficulties	4.27	1.28	T	Ability to form therapeutic relationships	3.97	1.49	T	Attitude to offence/ remorse	4.02	1.35
T	Ability to form therapeutic relationships	3.97	1.19	T	Compliance with supervision if discharged	4.26	1.05	T	Degree of interpersonal difficulties	3.90	1.66	T	Denial/acceptance of responsibility	3.97	1.42
T	Compliance with treatment	3.91	1.15	T	Denial/acceptance of responsibility	4.22	1.31	A	PCL-R results	3.76	1.95	T	Compliance with treatment	3.95	1.39
T	Degree of interpersonal difficulties	3.74	1.56	T	Clinicians' understanding of the offence	4.14	1.20	A	Structured clinical judgment results	3.69	2.02	T	Ability to form therapeutic relationships	3.90	1.52

a m=mean; b s.d =standard deviation; Factors in dark grey are those that have been rated highly by all 4 groups, factors in light grey are those that have been rated highly by 3 groups.

**Table 39**  
**10 factors with the lowest mean ratings, by professional group**

RMO				SW				Psychologist				Nurse			
		m <sup>a</sup>	s.d. <sup>b</sup>			m	s.d			m	s.d			m	s.d
H	Parental history <sup>c</sup>	1.12	1.74	A	PCL-R results	1.07	1.83	A	Anger rating results	1.54	1.97	H	Lived with parents till 16	0.12	0.51
A	Anger rating results	1.17	1.29	A	SCJ results	1.22	1.86	H	Parental history	1.79	1.99	A	Actuarial assessment results	0.30	0.97
B	Time spent in restraint / seclusion	1.27	1.73	A	Actuarial assessment results	1.23	2.34	H	Lived with parents till 16	2.09	2.09	A	PCL-R results	0.34	0.79
A	Actuarial assessment results	1.34	1.53	B	Time spent in restraint / seclusion	1.37	1.66	O	Previous experience	2.18	2.07	A	SCJ results	0.36	0.99
A	SCJ results <sup>d</sup>	1.45	1.65	H	Employment history	1.58	1.75	B	Time spent in restraint / seclusion	2.30	2.10	A	Anger rating results	0.61	1.20
H	Lived with parents till 16	1.53	2.02	O	Previous experience	1.58	2.06	H	Employment history	2.36	1.95	B	Time spent in restraint / seclusion	1.04	1.87
A	PCL-R results	1.62	1.67	A	Anger rating results	1.66	2.14	T	Current symptoms of mental illness	2.43	2.00	O	Previous Experience	1.05	1.57
T	Current symptoms of mental illness	1.78	1.75	H	Lived with parents till 16	1.76	1.76	T	Degree of institutionalisation	2.48	2.05	H	Employment history	1.21	1.76
O	Previous experience <sup>e</sup>	2.00	1.70	H	Parental history	1.78	1.72	T	Nature of illness e.g. stable /relapsing	2.64	1.87	H	Current age	1.33	1.84
H	Alcohol/drug misuse history	2.14	1.82	H	Non violent offence history	2.00	1.76	H	Current age	2.79	1.78	H	Age at first violent behaviour	1.57	2.04

a m=mean; b s.d =standard deviation; c Parental history = parental history of drug/alcohol &/or criminality.; d SCJ results = Structured Clinical Judgment results; e Previous experience = previous experience with similar patients; Factors in dark grey are those that have been rated as the least influential all 4 groups, factors in light grey have been rated as the least influential by 3 groups.

*'Violent offence / behaviour history'; 'seriousness of the offence / degree of victim injury'; 'response to treatment'; 'ability to form therapeutic relationships', 'degree of interpersonal difficulties' and 'compliance with treatment' were rated within the top 10 factors for all professionals. Three groups also rated 'clinician's understanding of the offence'; 'attitude to the offence /level of remorse'; 'insight into offending' (patient's) and 'denial / acceptance of responsibility as highly relevant in their judgment making.*

*'Anger rating results'; 'time spent in restraint or seclusion'; whether or not patients had 'lived with their parents until 16' and 'previous experience with similar patients', were all within the 10 factors that were rated as being the least influential in all professional groups. Three groups also rated 'parental history of criminality or substance misuse'; 'actuarial assessment results'; 'PCL-R assessment results'; 'Structured Clinical Judgment assessment results' and 'employment history' as having little influence when making their judgments.*

To examine difference in ratings between professional groups, the ratings of each of the 41 risk factors, according to professional group, for subjects where all the clinical team had rated all factors (n=24), were compared using Friedman's test (see table 40).



**Table 40**  
**Ratings of factors influencing risk judgments, according to professional groups, for subjects where all the clinical team had rated all factors (n=24)**

	Factor	RMO		SW		Psychol		Nurse		Friedman's Test	
		m <sup>a</sup>	s.d. <sup>b</sup>	m	s.d	m	s.d	m	s.d	X <sup>2</sup>	p <sup>c</sup>
H	Current age	2.50	1.61	3.03	1.69	2.82	1.87	1.50	1.88	12.79	0.01*
H	Lived with parents till 16	1.17	1.82	2.11	1.87	2.04	2.17	0.15	0.60	11.76	0.01*
H	Parental history of drug / alcohol & /or criminality	1.26	1.81	1.86	1.76	1.75	2.03	1.89	2.04	1.96	0.58
H	Early maladjustment, conduct disorder	2.96	1.88	3.79	1.57	2.75	2.01	2.21	2.01	10.64	0.01*
S	Marital status/ relationship history	3.25	1.89	3.36	1.70	2.79	2.02	2.04	1.93	6.09	0.12
H	Alcohol/drug misuse history	3.58	1.81	3.07	2.05	3.64	1.85	3.04	2.03	1.82	0.61
H	Employment history	1.87	1.85	2.12	1.81	2.36	2.00	1.11	1.75	3.18	0.37
S	Relationship with family	3.08	1.79	4.04	1.43	3.00	1.96	2.68	1.96	12.23	0.01*
H	Violent offence/ behaviour history	4.46	1.10	4.57	1.07	4.89	0.42	4.21	1.45	6.27	0.10
H	Non violent offence history	2.13	1.87	2.12	1.83	2.78	2.17	1.67	2.09	6.61	0.09
H	Age at first violent behaviour / offence	2.67	1.78	3.39	1.79	3.32	1.85	1.57	2.04	14.84	<0.01*
H	Age at index offence	2.58	1.84	3.71	1.49	3.22	1.90	1.96	2.10	12.40	0.01*
H	Seriousness of offence, degree of victim injury	3.92	1.53	4.64	0.69	3.96	1.37	4.11	1.42	4.37	0.22
H	Victim relationship	3.54	1.72	3.10	1.95	3.14	1.90	2.57	2.22	3.72	0.29

**Table 40 continued**

	Factor	RMO		SW		Psychol		Nurse		Friedman's Test	
		m	s.d	m	s.d	m	s.d	m	s.d	X <sup>2</sup>	p
T	Denial/acceptance of responsibility	4.17	1.09	4.03	1.50	3.39	2.06	3.82	1.42	0.32	0.96
T	Attitude to offence/ level of remorse	4.33	0.64	4.18	1.44	3.50	1.91	3.82	1.40	1.43	0.70
T	Clinicians understanding of the offence	4.37	0.71	4.00	1.33	4.64	0.62	2.75	1.80	16.20	<0.01*
T	Patient's insight into offence / offence pattern	4.20	0.66	4.04	1.32	4.14	1.69	3.86	1.43	4.38	0.22
T	Current symptoms of mental illness	1.71	1.93	2.00	1.8	2.39	2.06	2.28	2.11	2.19	0.53
T	Nature of illness e.g. stable /relapsing	2.14	2.03	3.04	1.88	2.53	1.93	3.11	1.99	1.55	0.67
T	Response to treatment	4.17	0.76	4.64	0.68	3.96	1.37	3.86	1.43	11.24	0.11
T	Compliance with treatment	4.20	0.72	4.68	0.55	4.04	1.20	3.71	1.54	8.73	0.03*
T	Ability to form therapeutic relationships	4.04	1.16	4.25	1.29	3.79	1.55	3.75	1.48	3.58	0.31
T	Degree of interpersonal difficulties	3.91	1.41	4.21	1.40	3.75	1.76	3.89	1.59	1.72	0.63
T	Attitudes e.g. pro criminal attitudes	2.87	2.07	3.33	1.73	3.54	1.40	2.89	2.06	3.34	0.34
T	Violent fantasy history	2.39	1.85	2.89	2.06	3.32	2.23	2.32	2.07	9.55	0.02*
T	Ability to cope under stress	3.37	1.69	3.93	1.41	3.46	1.86	3.86	1.48	4.96	0.18
T	Degree of institutionalization	2.50	1.82	3.46	1.57	2.46	2.12	2.79	1.95	5.13	0.16
H	Failure on previous discharge	2.17	2.17	3.03	2.17	3.18	2.16	2.04	2.35	6.19	0.10

**Table 40 continued**

	Factor	RMO		SW		Psychol		Nurse		Friedman's Test	
		m	s.d	m	s.d	m	s.d	m	s.d	X <sup>2</sup>	p
O	Previous experience with similar patients	1.87	1.63	2.29	2.16	2.07	2.09	1.07	1.49	4.46	0.22
A	PCL-R assessment results	1.42	1.72	1.54	2.06	3.75	1.96	0.29	0.76	28.12	<0.01*
A	Structured clinical judgment assessment	1.21	1.50	1.64	2.06	3.71	2.03	0.29	0.90	30.87	<0.01*
A	Actuarial assessment results	1.08	1.38	1.86	2.70	3.60	2.04	0.30	0.91	27.55	<0.01*
A	Anger rating results	1.00	1.04	2.14	2.22	1.28	1.90	0.75	1.35	10.84	0.01*
B	Physical aggression in hospital	2.58	1.82	3.25	1.78	3.14	2.05	2.68	1.96	5.34	0.15
B	Verbal aggression in hospital	2.92	1.53	3.40	1.79	2.96	2.05	2.75	1.92	2.04	0.56
B	Time spent in restraint / seclusion	1.50	1.79	1.50	1.80	2.36	2.15	1.22	1.91	2.56	0.47
B	Impulsive behaviour in hospital	2.75	1.98	3.39	1.69	3.18	1.89	3.00	2.14	2.61	0.46
T	Compliance with supervision if discharged	2.82	1.87	4.14	1.18	3.43	2.00	2.93	2.11	7.31	0.06
S	Exposure to destabilisers if discharged	3.44	1.75	3.71	1.78	3.46	2.01	3.21	2.02	2.37	0.50
S	Degree of personal support if discharged	3.08	1.86	3.64	1.57	3.36	2.06	3.36	1.95	3.28	0.35

a m=mean; b s.d.=standard deviation; c p=statistical probability; \*= statistically significant

Statistically significant differences between professions were found for 13 of the 41 factors. 5 factors :- *'current age'*, *'age at first violent offence'*, *'age at index offence'*, *'clinicians' understanding of the offence'*, and *'compliance with treatment'*, were rated lower by Nurses than by the other team members. *'Early maladjustment / history of conduct disorder'* and *'relationship with family'* were rated higher by Social workers' and *'violent fantasy history'*, *'PCL-R assessment results'*, *'Structured Clinical Judgment assessment results'* and *'actuarial assessment results'* were rated higher by psychologists.

#### **9.6 Association between RV/SV grouping and the level of agreement within the clinical team when making judgments of risk**

Linking back to part I of the study, the agreement of clinical team members in their judgments of the risk of re-offending of their patients, for the RV and SV groups (for the 28 patients for whom risk judgments were made by all 4 professionals in their team, and for the 12 patients for whom judgments were made by 3 professionals in their team), is shown table 41.

**Table 41**  
**Agreement in risk judgments for the RV and SV groups**

Level of agreement	RV (20)		(SV 8)	
Agreement for the 28 patients on whom judgments were made by all their clinical team				
All 4 professionals agree	2	10%	0	0%
3 professionals agree	4	20%	1	13%
2 professionals agree	13	65%	6	75%
No agreement	1	5%	1	13%
Agreement for the 12 patients on whom judgments were made by 3 of their clinical team				
All 3 professionals agree	0	0%	0	0%
2 professionals agree	2	50%	7	88%
No agreement	2	50%	1	13%

There is no commonly used direct test of a difference in agreement between groups but a Mann- Whitney test of the agreement levels showed no

statistically significant difference between the RV and SV groups (for 28 subjects where all 4 ratings were available,  $U=61.5$ ,  $p=0.35$ ; for the 12 subjects where 3 ratings were available,  $U=10.0$ ,  $p=0.37$ )

### **9.7 Association between RV/SV grouping and clinicians' confidence in their judgments**

Again, linking back to the first part of the study, Table 42 shows Clinical Team Members' confidence in their judgments of the risk of future re-offending of their patients, for the SV and RV groups. The confidence categories have been collapsed into 2 categories of '*low confidence*' (the categories of '*not at all*' and '*a little*' combined) and '*high confidence*' (the categories of '*quite*' and '*very*' combined).

**Table 42**  
**Clinical Team Members' confidence in their judgments of risk of re-offending for the RV and SV groups**

	RMO		Social Worker		Psychologist		Nurse	
	RV 24 <sup>a</sup>	SV 16 <sup>a</sup>	RV 26 <sup>a</sup>	SV 15 <sup>a</sup>	RV 23 <sup>a</sup>	SV 10 <sup>a</sup>	RV 25 <sup>a</sup>	SV 17 <sup>a</sup>
<b>Low confidence</b>	4 17%	3 19%	1 4%	1 7%	4 17%	3 30%	4 16%	4 24%
<b>High confidence</b>	20 83%	13 81%	25 96%	14 93%	19 83%	7 70%	21 84%	13 77%

<sup>a</sup> a number of RV and SV patients rated by each professional group

RMOs and Social Workers confidence in their judgments of the risk of re-offending were approximately equal for the RV and SV groups, with them rating themselves as having a high confidence in their judgments, for most of their patients, irrespective of whether the patient belonged to the RV or SV group. Psychologists rated their confidence in their judgment of re-offending as high for 82.6% of the RV group as compared to 70% of the SV group. Nurses rated their confidence in their judgment of re-offending as high for 84%.of the RV group compared to 77.4% of the SV group. However these differences were not statistically significant.

**Risk Assessment in Practice**  
**Results summary**

- **The correlation between clinical judgments (of risk of re-offending and suitability for transfer or discharge) and VRAG risk categories was low.**
- **Although perceived agreement was high, actual agreement between Clinical Team Members when making judgements of risk was low.**
- **For the majority of patients considered, professionals were at least 'quite confident' in their judgments of risk of re-offending.**
- **Clinicians' confidence was moderately correlated with their judgment of their patients' risk of re – offending, that is the higher the judged risk of re-offending, the more confident clinicians were of their judgment**
- **When making risk judgments, professionals rated offence, and treatment factors as more influential than other historical, social and behavioural factors.**
- **All professionals except psychologists rated risk assessment instruments as having little influence on their judgments. In contrast, Psychologists rated them as highly influential.**
- **There was no association between RV/SV grouping of offenders and
  - **Agreement within the clinical team in relation to risk judgments**
  - **Clinicians' confidence in their judgments.****

# **CHAPTER 10**

## **DISCUSSION**

## **CHAPTER 10**

### **DISCUSSION**

Part II of this study aimed to improve / expand on previous studies investigating the process of risk assessment , by attempting to examine it as it was carried out in the 'real world'; that is by asking clinicians to make risk judgments about their own patients. The findings, limitations and advantages of this part of the study will now be discussed, followed by suggestions for future work.

#### **10.1 Findings**

##### **Association between clinical and actuarial judgments**

As predicted, with the exception of Psychologists, the correlation between clinicians' judgments of their patients' risk of re-offending and their suitability for discharge and estimated risk of re-offending using the VRAG was low. This is in keeping with the findings of Hilton and Simmons (2001) and Hood and Shute (2000) and overlapped with the finding of this study that clinicians, with the exception of Psychologists, did not consider actuarial measures as influencing their judgments of risk of re-offending.

This is an important finding because, whilst there are a number of limitations to the actuarial approach (Doyle & Dolan, 2002), it has been consistently found that actuarial prediction of risk is superior in terms of predictive accuracy than unstructured clinical judgement (Doyle & Dolan, 2002; Grove & Meehl, 1996). The lack of association between clinicians' judgments and the VRAG found in this study (excepting Psychologists), calls into question the accuracy of clinicians' judgments and begs the question as to whether the VRAG or other relevant actuarial instruments should be systematically undertaken and considered when making judgments of risk.



### **Agreement within clinical teams on the judgments of risk of re-offending of their patients.**

The finding of very low agreement between members of the patients' clinical team is concerning but is in keeping with those obtained in other studies of the reliability of 'dangerous' judgments (see section 6.3). Given that the MDT is a forum / avenue for multidisciplinary team members to discuss their patients thoroughly and to share views, one might expect that the agreement among clinicians would be higher. Indeed it seems that the level of perceived agreement, in particular for SW and RMOs was high, although actual agreement was not. These results may reflect the findings of Ford and Farrington (1999) who found that whilst there was no obvious conflict or disagreement between members of the team at the time of the MDT meeting, disagreement was expressed later in research interviews. Thus it is possible that differences in opinion in relation to risk were not aired at MDT meetings, thus each professional presumed that the others were in agreement with them, when this was actually not the case.

An alternative explanation for the finding could be that because not all patients were being considered for discharge at the time of the study, issues of their community risk on release were not actually discussed in the MDT, hence the low level of agreement. However, the issue of community risk, whilst perhaps not directly related to discharge, is often discussed in MDT meetings in relation to leave and recommendations to Mental Health Review Tribunals, so whilst there may not have been discussions about risk on discharge per se, it is not unlikely that more general discussions in relation to community risk did occur.

### **Confidence in judgments.**

The finding that in general clinicians in this study were moderately or highly confident of their judgments is difficult to compare directly with findings of other studies because of different methodologies. Cooper and Werner (1990) found a similar level of confidence in their study with a mean confidence level of 78% for Psychologists and case managers predicting inmates' future violence. Jackson (1986) in her case vignette study, found

that a lower percentage, 40%, of Psychiatrists and Judges were extremely or quite confident of their prediction of future offences, however one might expect a higher degree of confidence in judgments made about one's own patients of whom one presumably has a better level of knowledge.

For all professional groups there was an association between level of confidence and the judged risk of re-offending. That is the lower the judged risk of re-offending, the less confident clinicians were of their judgements. This may be a contributing factor in explaining why some patients, although judged by clinicians to present a lower risk of re-offending, remain detained in hospital.

### **Factors influencing clinician's judgments of the risk of re-offending**

In keeping with the findings of previous studies, clinicians were significantly influenced by their patients' history of violence and the seriousness of their offence when making judgments of the risk of violent re-offending of their patients. The hypothesis that clinicians would rate the influence of treatment factors above the influence of other historical and social was also supported. Thus clinicians seemed to be giving more weight to clinical factors (such as response to treatment/ compliance with treatment, clinician's understanding of the offence, patients insight into offending behaviour) that may or may not be related to future-offending, at the expense of historical or social factors (such as employment history, parental history of substance misuse and criminality, history of non violent offending) that are known to be empirically related to offending.

As predicted results of actuarial assessments were among the 10 factors rated least influential for all professional groups with the exception of Psychologists, who rated them as highly influential. Similar results were found for other risk assessment tools (Structured Clinical Judgment (HCR-20) and PCL-R). The lack of weight given to actuarial or other risk assessment instruments by most team members in this study is in keeping with the findings of other studies (Ford & Farrington, 1999; Hilton & Simmons, 2001; Hood & Shute, 2000). However Psychologists in this study

did rate these instruments as being highly influential on their risk judgments and this was borne out in part by the finding that Psychologists' judgments of future offending were the most correlated with estimated risk using the VRAG. Traditionally psychologists are the individuals who are responsible for undertaking these assessments and thus perhaps it is not surprising that they rated these instruments as highly influential. However, the fact that other professions rated the influence of these instruments so low makes one wonder whether the findings of these assessments are fed back to the rest of the team in a way that informs the risk assessment of the patient by the whole team. It is now recommended that the risk management and scenario planning part of the HCR- 20 is carried out by the whole clinical team, thus it is possible that this will increase the awareness of other members of the team of these instruments.

Contrary to what had been predicted clinicians did not rate factors relating to their patient's behaviour in hospital as influencing their judgments of the risk of future violence if their patient was discharged. Perhaps this could be explained by the low prevalence of institutional problems that was found in the first part of this study.

### **Association between RV/SV grouping and level of agreement and confidence in judgments.**

Linking back to the SV and RV groups in part I of the study, contrary to predictions, there was no association between the RV/SV grouping and 1) the level of agreement between team members as to the risk of re-offending their patients presented, 2) clinicians' confidence in their judgments. Thus agreement was poor, irrespective of whether the patient was an SV or RV offender and confidence in judgments appeared more related to the risk the patient was estimated to pose, rather than whether they belonged to the SV/RV group (see above)

## **10.2 Limitations**

### **Study design**

Professionals were asked to give an estimate of the risk of re-offending of their patient if they were discharged from hospital *before* they were asked to rate the risk factors they thought influenced their decision. It is possible that their rating of the factors they considered influential may have been biased by the judgment they had just made. However, the aim of this part of the study was to ask clinicians to make a judgment *first* and then to consider the factors that influenced them in making *that* judgment, thus this bias could not be avoided.

Professionals were asked to give an estimate of the risk of re-offending of their patient if they were discharged from hospital, yet not all of the patients would have been considered for discharge at the time of the study. This limitation has already been discussed at length and therefore will not be repeated here.

Whilst attempts were made to ensure that questionnaires, relating to each patient were completed at the *same point in time*, that is within 2 weeks, this did not always occur, for example due to annual leave or nursing staff shift patterns

### **Questionnaire**

As already pointed out in the method, due to the lack of a previously published appropriate measure, the author was compelled to design and use a new questionnaire specifically for this project, and therefore to use a measure of unknown reliability and validity. For this reason the study can only be regarded as 'exploratory' and its results must be regarded with caution.

Attempts were made to establish test – retest reliability but this proved unsuccessful (see section 8.2) Question 1A of the questionnaire was

designed to test inter – rater reliability, therefore inter rater reliability could not be tested as something separate from the main use of the measure. Question 2 of the questionnaire had multiple items but these were not multiple indicators of a latent variable, therefore it was not appropriate to undertake measures of internal reliability.

The questionnaire could be viewed to have face validity in that, on the surface, it appeared to measure what it was supposed to measure and pilot respondents felt it '*made clinical sense*'. The high correlation found between categories of risk judgments and risk percentages in question 1 A could be regarded as indicating some validity for respondents ratings of risk.

With regard to question 2, it is possible of course that the factors clinicians *thought* influenced their decisions did not really influence their decisions, that is, clinicians were not consciously aware of the factors influencing their decisions. However the results in relation to question 2 are consistent with those of other studies that have employed different methodologies.

Whilst many factors were presented to professionals in question 2, there might have been other factors that influenced their judgments but which were not presented. However very few professionals proffered additional factors when asked to do so on the questionnaire.

### **Sample size**

Whilst overall the questionnaire response was good, when investigating the question of agreement of risk judgments within the clinical team, only 28 patients has questionnaires completed by all professionals within their MDT, leading to very wide confidence intervals for measures of reliability.

### **Analysis**

As already discussed in Section 8.4, not all patients were judged by the same professional which means that differences between professional groups must be interpreted with caution

## **Measures**

Clinicians' predictions of risk were compared with those as determined by the VRAG. As described in the method this is a predictive, actuarial instrument that is based entirely on static historical risk factors. It does not take dynamic factors into account. Given that the study took place in a hospital setting, where clinicians hope to reduce risk by impacting on clinical/ social dynamic factors, the author admits that in retrospect, it perhaps would have been better to compare clinicians' prediction of risk with the scores on the now much more commonly used HCR-20 (Webster, Douglas, Eaves, *et al*, 1997) . Although not a predictive instrument, The HCR-20, guides clinicians through the assessment and management of risk by systematically considering and scoring the presence and relevance of not only historical, but also clinical and risk management factors. It is now widely used in forensic health settings.

### **10.3 Advantages**

Despite the limitations discussed above, to my knowledge, this is one of very few studies to date that has attempted to examine risk assessment as it is carried out in the '*real world*', and to examine this in the context of a multidisciplinary team setting.

### **10.4 Future Work**

Part II of this study suggests that agreement between multidisciplinary members on judgements of risk is low; that clinicians, when making risk judgments, may rely more on clinical factors that may or may not be related to future offending than other factors that are known to be related to future offending, and that '*gold standard*' risk assessments tools are not influential on professionals judgments of risk (with the exception of Psychologists).

However the routine use of '*gold standard*' risk assessment tools, completed (or at least partially completed) by the whole team may change this. The recent investment by the government into the provision of services to

individuals with personality disorder who are deemed to present a risk to the public has meant the routine use of risk assessment tools in these settings which in turn as led to the more frequent use of these assessments in other settings, including the medium secure and high secure hospital that this research was undertaken. Thus replication of this study a few years from now may reveal quite different results.

Prof ID -----

Pat ID -----

### **Risk perception by clinical teams**

This questionnaire is designed to explore clinical teams' perception of risk for individual patients. Please answer the following questions bearing in mind the particular patient indicated. Answers should be based on *your knowledge of the patient to date*.

#### **1. Judgement of risk of future offending behaviour if in the community**

##### **A) Violent offending behaviour (of severity that would result in a custodial sentence)**

1a. What would you estimate the risk of future violent offending behaviour by your patient to be if they were released into the community today.

Low	medium	high	very high
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1b. Please indicate a %risk -----

2. How confident are you of this judgement of risk?

Not at all	a little	quite	very
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Do you think the rest of the clinical team would agree with your judgement ?

Yes	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Comments if s answers 'no'*

##### **B) Sexual offending behaviour (of severity that would result in a custodial sentence)**

1a. What would you estimate the risk of future sexual offending behaviour by your patient to be if they were released into the community today?

Low	medium	high	very high
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1b. Please indicate a %risk -----

2. How confident are you of this judgement?

Not at all	a little	quite	very
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Do you think the rest of the clinical team would agree with your judgement ?

Yes	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Comments if s answers 'no'*



## **2) Factors involved in risk judgements**

**a) You have just made a judgement/s of risk of future offending behaviour by your patient. *I am interested in trying to find out what factors most influenced this judgement.* Taking a few minutes to reflect, what do you think the main factors were that influenced your judgement?**

**b) *Overleaf* are a number of factors, which may be related to, or may inform on, the risk of future offending. Thinking about the judgement/s you have just made, please rate the prominence of, or how much you think you considered each factor, (presence or absence), *at the time* of making your judgement about *this particular patient*, where 0 =not prominent/not considered and 5= very prominent /considered a lot**

**I am not interested in finding out whether or not you consider the individual patient to have or not have a particular risk factor, nor am I interested in whether, on reading each factor you consider that they would/should be relevant to risk assessment for this particular patient, *rather I am interested in what you think actually influenced your decision, at the time of making the judgement***

**With some patients, you may consider some factors not applicable e.g. history of non contact sexual offences in non sex offenders. In this case rate as N/A**

**c) If you think you considered any other factors at the time of making the judgement, please list in the space provided**

### **Factors involved in risk judgements**

Please rate how much you think you considered the following factors *at the time* of making your risk judgement, on a scale of 0 to 5 where 0 =not considered, 5=considered a lot. Then please asterisk the 5 factors that you think were the most important/influential.

rating		rating	
1. current age	----	24. nature of illness eg stable/relapsing	----
2. lived with parents till 16	----	25. response to treatment	----
3. parental history of drug/alcohol &/or criminal history	----	26. compliance with treatment	----
4. early maladjustment, history of conduct disorder	----	27. ability to form therapeutic relationships	----
5. marital status/relationship history	----	28. degree of interpersonal difficulties	----
6. alcohol/drug misuse history	----	29. attitudes eg procriminal attitudes	----
7. employment history	----	30. violent fantasy history	----
8. relationship with family	----	31. ability to cope under stress	----
9. violent offence/ behaviour history	----	32. degree of institutionalisation	----
10. sexual offence/behaviour history	----	33. failure on previous discharge attempts eg trial leave, conditional discharge	----
11. non contact sexual offence history	----	34. previous experience with similar patients	----
12. non violent offence history	----	35. PCL-R assessment results	----
13. age at first violent behaviour/offence	----	36. structured clinical judgement assessment results eg HCR-20	----
14. age at first sexual offending /behaviour	----	37. actuarial assessment results eg VRAG	----
15. age at index offence	----	38. anger rating scale results	----
16. seriousness of offence, degree of victim injury	----	39. physical aggression in hospital	----
17. gender of victim	----	40. verbally aggression in hospital	----
18. victim relationship	----	41. time spent in restraint/seclusion	----
19. denial/acceptance of responsibility	----	42. impulsive behaviour in hospital	----
20. attitude to offence/ level of remorse	----	43. compliance with supervision if discharged	----
21. your understanding of the offence/offending pattern	----	44. exposure to destabilisers if discharged	----
22. degree of insight/understanding -offence/offending pattern by patient	----	45. degree of personal support if discharged	----
23. current symptoms of mental illness eg delusions/hallucinations	----		

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**Other factors I considered in making my risk judgement**

**3) Suitability for discharge/release**

**If your patient had a MHRT in the near future, please indicate your recommendations**

- ☐ **Absolute discharge**
- ☐ **Conditional discharge**
- ☐ **Transfer to conditions of lesser security**
- ☐ **Remain in high security**

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