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Declaration

I, Joe Judge, declare that this thesis was written by me and that I conducted the work detailed herein. This work has not been submitted for, or accepted in, any previous degree.

Joe Judge
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This thesis would not have been possible without the support of a number of people. I am indebted to them all.

First, despite being recognised experts in the field of sexual violence, my academic supervisors, clinical supervisor, and research colleagues have always been extremely generous with their time and energy. For this I thank Dr Ethel Quayle, Dr Suzanne O’Rourke, Dr Katharine Russell and Dr Rajan Darjee. I also thank Professor Mick Power, for helpful statistical advice, and Dr Ruth Mann and Dr Karl Hanson, for their encouraging feedback at the start of this process.

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Finally, and most importantly, I could not have completed this thesis without the support of my wife, Emma. I thank her for her endless patience and love and I dedicate this work to our daughter, Orla.
Thesis Abstract

Background: Risk assessment of sexual violence involves evidence based evaluation of the risks posed by sexual offenders. It informs risk management; the provision of treatment that reduces the risk of future sexual violence. Previous research has focused on assessment of the predictive accuracy of different risk assessment tools, as well as the identification of risk factors that are associated with recidivism. In contrast, the clinical practice of risk assessment is a research area that has been neglected. The aim of this thesis was to explore the practice of risk assessment in a specialist sex offender liaison service (SOLS). Particular attention was paid to the structured professional judgement method of risk assessment.

Method: A systematic review of the literature identified psychological factors associated with sexual recidivism in adult male offenders. Study 1 employed a cohort quantitative design and aimed to ascertain whether risk judgements made by the SOLS were predicted by factors that were identified by the systematic review (and previously existing meta-analyses) as being evidence based. Ordinal logistic regression and linear regression analyses ($N = 96$) were used to investigate the hypothesised predictive associations between variables. Study 2 utilised a qualitative framework analysis ($N = 31$) and aimed to explore the views of users of SOLS risk assessments with respect to their practical utility.

Results: The systematic review suggested that psychopathy and sexual deviance were supported as risk factors for sexual recidivism. Inconsistent results were found with respect to denial. Study 1 found that psychopathy, denial, and sexual preoccupation were significantly associated with risk judgement scores made by the SOLS, while sexual deviance, and problems with intimate relationships, were not. The best explanatory model accounted for only 40 per cent of the variance in risk judgement score. Study 2 revealed five major themes: informing risk management; confirming what was known and giving weight; understanding personality; treatment; and the usefulness and limitations of risk assessment.
Conclusions: Results indicated that SOLS risk judgement scores were significantly associated with the evidence based risk factors; psychopathy and sexual preoccupation. However, a substantial proportion of the variance in risk judgement score was unexplained. The SOLS risk assessments were considered by users to be practical and had informed risk management. Strengths and limitations of the research are discussed and implications for clinical practice and future research are suggested.

Word Count: 31,521
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CHAPTER I
SYSTEMATIC REVIEW*

*Written according to the instructions for authors of the Journal of Sexual Aggression. See Appendix 1 for further details.
What psychological factors are associated with sexual recidivism in adult male contact sexual offenders? A systematic review

Numerous psychological factors have been posited as being associated with sexual recidivism. Several large scale meta-analyses have concluded that sexual deviance and antisociality are associated with recidivism. However, the critical appraisal of included studies was neglected in these analyses. The present study sought to systematically review the literature. A literature search for studies exploring psychological risk factors for sexual recidivism was conducted. Multiple electronic databases were searched and key journals hand-searched. Twenty-seven studies met inclusion criteria. The included studies suggested that sexual deviance and antisociality were indeed important risk factors for sexual recidivism. However, methodological weaknesses in the literature were identified and the evidence was not considered to be conclusive. Further high quality research is required to explore the relationships between variables. Implications for clinical practice are considered.

Keywords: sex offenders; recidivism; risk factors; risk assessment; review; psychological

Introduction

Sexual offenders and offences often provoke extreme reactions from the general public. In many cases these responses are fuelled by media outlets who argue that such offences could have been predicted and that offenders should not have been at liberty (e.g. Sunday Mail, 2011). Given this scrutiny, there is an expectation that professionals should be able to identify offenders who are likely to recidivate and that these individuals should be managed accordingly. Risk assessment seeks to identify offenders who are at risk of recidivating and to point to measures that can be taken to manage risk. Over the past thirty years there has been a great deal of research which has looked at the accuracy of various different methods of risk assessment. In addition, researchers and practitioners have sought to identify risk factors which may act as markers or
warning signs that an offender may recidivate. These two areas of research are closely intertwined. An evidence based risk assessment tool will make use of known risk factors in order to evaluate the offender’s risk of recidivism.

**Risk assessment**

Andrews and Bonta (2010) described the evolution of risk assessment of general offending in terms of four “generations”. They argued that first generation risk assessments were unstructured professional judgements of risk made by clinicians. These types of assessment have been found to be inaccurate and have largely been discredited (Grove, Zald, Lebow, Snitz, & Nelson, 2000). The second generation involved using very structured approaches which combine historical factors and generate a risk score. An example of a second generation method within the sexual violence field is the Static-99, (Phenix, Hanson, Harris, & Thornton, 2012). Second generation methods, commonly called actuarial tools, predict recidivism more accurately than unstructured methods, (Grove, et al., 2000) but unfortunately they provide little or no information about how to manage the offender in order to prevent further offending (Hart & Logan, 2011). Nor do they allow for offenders whose risk of offending has decreased, since an offender’s actuarial risk score is relatively fixed. Third generation tools were developed to remedy these shortcomings. In the field of risk assessment of general offending they include the Level of Service Inventory Revised (LSI-R; Andrews & Bonta, 1995). It has been argued that third generation tools measure “offender need” (Andrews & Bonta, 2010, p. 314). That is, they measure more changeable “dynamic” factors that have been shown to be associated with criminal conduct. They can therefore be used to shape the treatment and management of the offender. These third generation tools were, in turn, used to develop the fourth
generation of risk assessment methodology. The Level of Service/Case Management Inventory (LS/CMI; Andrews, Bonta, & Wormith, 2004) is an example of a fourth generation risk assessment tool in the general offending field. It has been argued that fourth generation instruments explicitly address the link between risk assessment and risk management and that these instruments represent the current state of the art (Andrews & Bonta, 2010).

An alternative perspective on the history of risk assessment was provided by Hart and colleagues (Hart, 2008; Hart & Logan, 2011). These authors suggested that there are two broad approaches to risk assessment: non-discretionary and discretionary procedures. The non-discretionary approach is characterised by Hart and Logan (2011) as being actuarial, while the discretionary approach is best represented by the structured professional judgement (SPJ) method. In the sexual violence field the SPJ method is exemplified by the Risk for Sexual Violence Protocol (RSVP; Hart et al., 2003). The RSVP utilises twenty-two factors that are associated with sexual recidivism. The assessor considers each of these factors, but rather than arriving at a risk score, this information is used to form a judgement about the offender’s risk of recidivism, and to outline treatments that can be used to manage or mitigate this risk. Hart has noted that alternative approaches (for example, so called “adjusted actuarial” approaches) are simply variations of either actuarial or discretionary approaches (Hart, 2008, p. 139).

Andrews, Bonta and Wormith (2006) described the structured professional judgement method as being “a variation” (p. 8) of first generation methods and have criticised this approach as they argued that its predictive validity is questionable. Exponents of the structured professional judgement method argued that it may be considered fourth generation (Hart & Boer, 2010) and that “only the SPJ approach assists the development of risk management plans based on an understanding of the
causes of past violence” (Hart & Logan, 2011, p. 91). Hart and Logan (2011) questioned the notion that risk assessments need only be predictive and suggested that clinicians are required to know how to treat and manage the offender.

**Risk factors associated with sexual recidivism**

As indicated previously, evidence based risk assessment tools should make use of empirically validated risk factors associated with sexual recidivism. However, before risk factors are identified there must first be some agreement about how they are conceptualised. Again, there has been much debate in the literature.

Risk factors have traditionally been split into “static” and “dynamic” categories. It has been argued that static factors are the relatively fixed properties of the offender such as age at first conviction or the number of offences committed. Conversely, dynamic factors are those more changeable aspects of the offender, such as attitudes towards women, or sexual deviance. While static factors are fixed and cannot be remediated in most cases, dynamic factors are those that can be targeted in treatment. Andrews and Bonta (2010) argued that second generation risk assessment tools utilise static factors, while third and fourth generation tools use a combination of static and dynamic factors. Dynamic factors have been further subdivided by Hanson and colleagues into “stable dynamic risk factors” and “acute dynamic risk factors” (Hanson & Harris, 2000). For example, a relatively stable but potentially changeable factor such as antisocial personality would be considered a stable dynamic risk factor, while a more changeable factor such as depressed mood would represent an acute dynamic risk factor.

In a recent paper, Mann and colleagues suggested that an alternative way of conceptualising risk is to consider what they called “psychologically meaningful risk
factors” (Mann, Hanson, & Thornton, 2010). They argued that previous work by Beech and Ward (2004) challenged the static-dynamic distinction. Beech and Ward (2004) argued that static factors act as markers of previous dynamic risk. For example, a number of previous sexual convictions may signify sexual deviance or sexual preoccupation. In Mann and colleagues’ view the “distinction between static and dynamic factors loses meaning” if the Beech and Ward (2004) conceptualisation is adopted (Mann, et al., 2010, p. 194).

Mann et al. argued persuasively that risk factors can be viewed as “individual propensities, which may or may not manifest during a particular time period” (Mann, et al., 2010, p. 194). In their meta-analytic study they attempted to identify such factors. A cumulative meta-analytic approach was used, building on the previous work of Hanson and colleagues (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005). Because the present paper is a systematic review, a discussion of systematic reviews and meta-analytic techniques becomes necessary.

**What are systematic reviews and meta-analyses and how do they differ?**

Systematic reviews are “overview[s] of primary studies that use explicit and reproducible methods.” (Greenhalgh, 1997, p. 672). Such reviews aim to minimise bias by identifying, critically appraising and synthesizing relevant studies (Petticrew & Roberts, 2006). Methods are specified *a priori* and are reported in detail. Systematic reviews are commonly contrasted with traditional “journalistic” reviews which are often conducted by experts. It is argued that journalistic reviews are prone to bias (Greenhalgh, 1997; Petticrew & Roberts, 2006).

Meta-analysis involves the “mathematical synthesis of the results of two or more primary studies that [address] the same hypothesis in the same way” (Greenhalgh, 1997,
It can therefore be used to pool the results of studies and to explore patterns in the data (Petticrew & Roberts, 2006). Meta-analysis can be used to synthesize studies as part of a systematic review. However, this is not the only method of research synthesis within systematic reviewing. It has been argued that meta-analysis often combines studies that are not similar, termed the “apples and oranges” problem, and that it depends upon the quality of included studies (Eysenck, 1995; cited in Petticrew & Roberts, 2006). In cases where studies do not address the same hypothesis a narrative synthesis of included studies may be more appropriate (Petticrew & Roberts, 2006).

When conducting a systematic review it is good practice to search for, and appraise previous reviews in the same area.

**Previous meta-analytic studies**

Searches for previous systematic reviews and meta-analytic studies revealed three meta-analyses that investigated psychological factors which are associated with sexual recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005; Mann, et al., 2010). The original Hanson and Bussière (1998) meta-analysis used data from 61 different studies and an aggregated dataset comprising 23,393 participants. They found that sexual recidivism was best predicted by *sexual deviancy* (measured in various different ways) and by *general criminological factors*, including age and number of prior convictions.

Hanson and colleagues have used cumulative meta-analytic methods in subsequent reviews (Hanson & Morton-Bourgon, 2004, 2005; Mann, et al., 2010). This involves retaining information from previous meta-analyses and “bolting-on” recidivism studies conducted following the original meta-analysis (Hanson & Broom, 2005). The first cumulative meta-analysis (Hanson & Morton-Bourgon, 2004, 2005),
this time used data from 95 different studies and had an aggregated dataset comprising more than 31,000 participants. Hanson and Morton-Bourgon (2004) reported that sexual deviance and antisocial orientation were predictors of sexual recidivism and they concluded that these findings provided support for their previous work. The terms sexual deviance and antisocial orientation included a number of subcategories, which may suggest that the way in which these risk factors are conceptualised is important.

The most recent meta-analytic study was conducted by Mann et al. (2010). Again, this used the cumulative meta-analytic technique. Two large scale recidivism studies were added to the analysis: the Bridgewater study (Knight & Thornton, 2007), and the Dynamic Supervision Project (Hanson, Harris, Scott, & Helmus, 2007). Mann and colleagues’ aim was to identify “psychologically meaningful risk factors” and they categorised a number of such factors according to evidence for their predictive validity. Risk factors were categorised as: (a) empirically supported; (b) promising; (c) unsupported overall but with interesting exceptions; or, (d) factors with little or no relationship to sexual recidivism. Overall, the results were similar to those of previous meta-analyses. However, many risk factors were conceptualised differently. The following factors were considered to be empirically supported: sexual preoccupation; sexual preference for prepubescent or pubescent children; sexualised violence; multiple paraphilias; offence supportive attitudes; emotional congruence with children; lack of emotionally intimate relationships with adults; lifestyle impulsiveness; poor problem solving; resistance to rules and supervision; grievance / hostility; and, negative social influences.

The factors, sexual preference for prepubescent or pubescent children; sexualised violence; and multiple paraphilias are different subcategories of sexual
deviance. The factors, lifestyle impulsiveness; and resistance to rules and supervision; could be considered to be subcategories of antisocial orientation.

While these very large scale meta-analyses are impressive in their size and scope they have some limitations. The meta-analytic approach has itself long been criticised for its reliance on statistical output and the process has been likened (unfairly in the author’s view) to that of sausage-making (Ravetz, 1973; cited in Petticrew & Roberts, 2006).

Lund (2000) criticised one of the early meta-analyses and focused particularly on the handling of denial by Hanson and Bussière (1998). Many of his criticisms could be applied to the meta-analytic technique more generally, especially when such a large scale analysis is attempted. Lund suggested that the ability of meta-analysis to answer important theoretical and practical questions rests upon the quality of the studies analysed. The quality assessment and critical appraisal of primary research studies are crucial components of meta-analysis and systematic reviewing more generally in that case. In their original paper, Hanson and Bussière acknowledged this fact but stated that “this issue was less of a concern... because all studies used the best available design” (Hanson & Bussière, 1998, p. 350). In the subsequent meta-analyses (Hanson & Morton-Bourgon, 2004, 2005; Mann, et al., 2010), the critical appraisal of primary research was not reported.

Lund also argued that there was heterogeneity among the studies analysed, particularly with respect to how denial was operationally defined. Lund argued that in this instance “many sources of measurement error are combined” (p. 282), resulting in difficulty in detecting significant effects. Additionally, meta-analysis is not sensitive to interactions with other variables. For example, if denial is moderated by risk level, meta-analysis would not be able to reveal this (Lund, 2000).
Further, although the cumulative meta-analytic technique is defended by Hanson and Broom (2005) and appears to be robust, some of the studies that are included in later analyses are now several decades old. While it is not suggested that such results should be discarded it must also be recognised that the field has moved on. It is important that innovative contemporary research is utilised.

**Aims of current review**

The present study is the first systematic review (as opposed to meta-analysis) identifying risk factors for sexual recidivism. The quality assessment and critical appraisal of primary research is a crucial component of systematic reviewing and is an area which has not been emphasised until now. It has been argued that a systematic review “allows researchers to rise above the body of evidence, survey the landscape, and map out future directions” (Gelber and Goldhirsch, 1991; cited in Cartwright-Hatton, Roberts, Chitsabesn, Fothergill, & Harrington, 2004, p. 422). The critical appraisal of contemporary research facilitates this process. Importantly, the aim was not to replace the previous meta-analyses that have been conducted, but rather, for this review to be viewed as complementary to them. A systematic approach was used to identify relevant studies. Findings are summarised and studies critically appraised. Clinical implications and directions for future research are discussed.

**Method**

Reporting of this systematic review followed the guidelines of the Centre for Reviews and Dissemination (CRD) of the University of York (Centre for Reviews and Dissemination, 2009). The CRD disseminates high quality systematic reviews and promotes the role of systematic reviewing in health and social care decision making. It produces high quality guidelines for the undertaking of systematic reviews. These
guidelines have been used both nationally and internationally (Centre for Reviews and Dissemination, 2009).

**Inclusion and exclusion criteria**

*Study Design*

Studies were not required to be randomised controlled trials (RCTs) for inclusion in the systematic review. Studies examining risk factors are normally observational rather than involving an intervention. Randomised controlled trials are difficult to conduct in this research area. Studies were eligible for inclusion if they stated a primary aim of identifying risk factors for sexual recidivism. Sexual recidivism was required to be a dependent variable of the study or, for studies with alternative designs, there must have been some comparison of sexual recidivists versus non-recidivists. Definitions of sexual recidivism varied; however, offenders were required to at least have been charged with a re-offence containing a sexual element. Editorials, commentaries, reviews and other examples of non-primary research were excluded. Qualitative research was excluded since it is generally ideographic in nature and was therefore not helpful in answering an aetiological review question.

*Population*

Included studies were based on adult (18+ years old) male contact sexual offender participants. As such, studies based on participants from the following groups were excluded: female sexual offenders, adolescent sexual offenders, sexual offenders with known intellectual disabilities, and non-contact-only sexual offenders (for example internet-only offenders and Exhibitionist offenders). It is thought that these groups are different to more generic sexual offenders (see, for example, Seto & Lalumiere, 2010).
There may be specific risk factors for these groups. Studies pertaining to mixed offenders (that is, those offenders with a mixture of contact and non-contact sexual offences) were included.

Additional Considerations

Due to limitations with respect to translation of studies, only studies published in English were included in the review. Studies conducted since 1990 were included so that the review made best use of contemporary research.

Literature search strategy

The following electronic databases were searched: ASSIA (Applied Social Sciences Index and Abstracts), IBSS (International Bibliography of Social Science), PsycINFO, Social Services Abstracts, Sociological Abstracts, and Web of Knowledge. All databases were searched from 1990-2011.

Preliminary scoping searches were conducted, including the databases mentioned above, as well as the following databases pertaining to unpublished or grey literature: REGARD (the Economic and Social Research Council (ESRC) funded research database), OPENGREY (previously the System for Information on Grey Literature in Europe; SIGLE), NRR (National Health Service Research Register), and THESES.COM (database of theses published in the UK). Unfortunately, no suitable grey or unpublished studies were found. However, as a consequence of the scoping searches, the author decided to limit the review to studies published in peer reviewed publications. In this way, resources would be concentrated on the (theoretically) highest quality studies. Scoping searches had returned very large quantities of studies.

Searches were modified according to the peculiarities of individual electronic databases but generally included the following terms: (sex offen*) or (sexual offen*) or
(sexual abuse) or (child molest*) or incest or rape or (child abuse*) and (risk assessment) or (risk management) or (risk factor*) and (recidiv* or reoffen* or relaps*).

In addition, two key journals were hand searched, since electronic searches depend on the studies being indexed correctly on databases, and because errors in indexing are common (Petticrew & Roberts, 2006). *The Journal of Sexual Aggression* and Sexual Abuse: A Journal of Research and Treatment were searched between the years 2005-2011.

After duplicates were removed the various different search strategies resulted in a total sample of 1284 studies. Titles were screened with respect to the inclusion and exclusion criteria resulting in 312 studies. Studies which were clearly unrelated to the aims of the systematic review were discarded at this stage as were those studies that could clearly be identified as editorials or that related to excluded populations such as adolescent offenders or offenders with intellectual disabilities. The abstracts of the remaining 312 studies were further scrutinised according to inclusion criteria and a further 273 studies were excluded. Thirty-nine studies were provisionally included in the systematic review and the entire papers scrutinised according to the inclusion criteria. Twelve studies were eliminated at this point (see appendix 2 for reasons for exclusion) leaving 27 studies that were included in the review. Of these 27 studies, two types of study became evident. First, studies that collected psychometric data and then examined the relationships between various different components of these psychometric data with sexual recidivism. Second, studies that sought to examine links between psychological factors that were specified *a priori*, and sexual recidivism. These two types of study were termed “descriptive studies” and “hypothesis driven studies” and were considered separately in the systematic review. Figure 1.1. outlines the process of arriving at the final studies.
Figure 1.1. Flow diagram detailing the literature search process.
**Quality Assessment and Data Management**

The twenty seven included studies were assessed by the author using a specially adapted quality assessment tool (Shown in appendices 3 and 4). Because no such tool had previously been published, the tool was adapted from previously existing quality assessment tools (Thomas, 2003; Wells et al., 1999). The tools on which the current one was based were found to be of use in the quality assessment of non-randomised studies in a review of the area (Deeks et al., 2003). All studies included in the current systematic review were non-randomised.

In addition, a search was undertaken for validated quality assessment tools within the sexual aggression literature. The Maryland Scientific Methods Scale (SMS) is widely used in the criminological literature and is recommended for use by the Campbell Collaboration, a body which promotes the systematic reviewing of the effectiveness of criminological interventions (Farrington, 2003). This and other tools were not suitable for the present study as they were designed to assess the quality of intervention studies. The present study was aetiological in nature and thus required an adapted tool. A review of the epidemiological literature concluded that there is no single obvious tool for assessing quality of observational studies addressing questions of aetiology (Sanderson, Tatt, & Higgins, 2007), again necessitating the use of an adapted tool.

The tool was adapted from the *Quality Assessment Tool for Quantitative Studies* (Thomas, 2003) and was scored in a similar way to the original tool. Seven methodological areas were scrutinised and scored as being strong, moderate or weak: study objectives; selection bias; withdrawals and drop outs; assessment and data collection; follow-up and sample size; validity and reliability; and sample size. A
scoring procedure was provided to assist raters with scoring of items (shown in appendix 4).

A secondary reviewer, with knowledge and experience of systematic reviewing, was given a sample of 15 per cent (four papers) of the included studies and also completed the quality assessment tool independently. Scores were collated and Cohen’s kappa inter-rater reliability calculated. Kappa = 0.78 ($p < .001$) demonstrating substantial agreement.

Data for each paper were entered on a data extraction form (shown in appendix 5). Quality assessment scores and summaries of each paper were included in the forms. Individual papers were stored and managed using EndNote reference management software.

**Results**

*Description of studies: descriptive studies*

Of the 13 included studies identified as being descriptive, four were conducted in the USA, two in New Zealand, two in the UK, two in Canada, and one in Spain. Two studies used data from more than one jurisdiction, one using Canadian and US data, the other using UK and US data. The studies spanned the years 1994 – 2010 and included diverse populations. Five studies examined child molesters exclusively, while eight examined samples of various different sexual offender types. The mean sample size was 334 and of those studies which reported length of follow-up, the mean was 7.3 years. When one outlier was removed this was reduced to 6.1 years. Study designs fell into three categories. First, studies that were longitudinal. These studies generally used methods such as factor analysis to establish dimensions that could then be associated with sexual recidivism. Ten such studies were categorised as such. Second, studies that
compared groups of offenders with differing histories. Two such studies were in this
category. Redondo et al. (2007) compared recidivists versus non-recidivists while
Thornton (2002) compared “current-only” offenders with “repeaters”, that is, those
offenders with more than one sexual conviction. Third, were studies of dynamic factors
prior to the committal of a sexual offence. Hanson and Harris (2000) used this
methodology to compare offenders who had recidivated while under supervision to
those who had not recidivated. Further details of studies and key findings are presented
in Table 1.1.
Table 1.1. Characteristics of descriptive studies included in review

<table>
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<tr>
<th>No.</th>
<th>Study / Country</th>
<th>Population</th>
<th>N =</th>
<th>Dep. Variable</th>
<th>Follow-up (Years)</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Allan et al. (2007)</td>
<td>Child molesters</td>
<td>495</td>
<td>Sexual recidivism</td>
<td>M = 5.8</td>
<td>Factor analysis of psychometric data revealed four factors. All four correlated with sexual recidivism. (Social inadequacy, sexual interests, anger/hostility, pro offending attitudes).</td>
</tr>
<tr>
<td>3.</td>
<td>Boccaccini et al. (2010)</td>
<td>Child molesters and rapists. Individuals being screened as SVPs</td>
<td>1,412</td>
<td>Sexual recidivism</td>
<td>M = 4.9</td>
<td>Scores from several Personality Assessment Inventory (PAI) measures were statistically significant predictors of multiple types of recidivism. But no PAI measure was strong predictor of sexually violent recidivism.</td>
</tr>
<tr>
<td>4.</td>
<td>Craig et al. (2006)</td>
<td>Mainly child molesters</td>
<td>119</td>
<td>Sexual recidivism</td>
<td>Sample 1 M = 8.8</td>
<td>Factor analysis confirmed results of a previous study identifying four factors of Multiphasic Sex Inventory (MSI). Sample 2 M = 6 Sexual deviance factor was predictive of sexual recidivism.</td>
</tr>
<tr>
<td>5.</td>
<td>Hanson &amp; Harris (2000)</td>
<td>Contact offenders (Child molesters and adult rapists). 208 recidivists 201 nonrecidivists</td>
<td>409</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Recidivists had poorer social supports, attitudes tolerant of sexual assault, antisocial lifestyles and poor self management strategies. Also poor cooperation with supervision.</td>
</tr>
<tr>
<td>7.</td>
<td>Kingston et al. (2008)</td>
<td>Intrat familial child molesters.</td>
<td>295</td>
<td>Sexual recidivism</td>
<td>M = 10.8</td>
<td>Used regression to identify predictor variables for three different types of recidivism. Rate of sexual recidivism was low and only PCL-R score was significantly associated with sexual recidivism. Age, IQ, violence, Michigan Alcoholism Screening Test, Buss Darke Hostility Inventory and Abel Cognition Scale demonstrated &quot;moderate&quot; associations with sexual recidivism.</td>
</tr>
<tr>
<td>8.</td>
<td>Marques et al. (1994)</td>
<td>Child molesters 76 treated 79 untreated</td>
<td>160</td>
<td>Sexual recidivism</td>
<td>M = 3.2</td>
<td>Higher levels of arousal (deviant and non-deviant) associated with sexual recidivism. Strongest predictor of sexual recidivism was ability to use relapse prevention material.</td>
</tr>
<tr>
<td>No.</td>
<td>Study / Country</td>
<td>Population</td>
<td>N =</td>
<td>Dep. Variable</td>
<td>Follow-up (Years)</td>
<td>Main Findings</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------</td>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>10.</td>
<td>Redondo et al. (2007)</td>
<td>Contact offenders. (Child molesters and adult rapists)</td>
<td>123</td>
<td>Not applicable</td>
<td>M = 3.75</td>
<td>Compared recidivist versus nonrecidivists. Differences between recidivists and non-recidivists in terms of demographic variables and criminal career variables.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Study 2 = England and Wales. Adult males discharged from prison in 1979 at end of sentence for a sex offence.</td>
<td></td>
<td></td>
<td></td>
<td>Study 2 – Found similar two dimensions (sexual deviance and general criminality) plus detachment factor. Regression with recidivism as outcome variable found that all three made independent contribution to predicting sexual reconviction.</td>
</tr>
<tr>
<td>12.</td>
<td>Sreenivasan et al. (2007)</td>
<td>Mixed group of offenders.</td>
<td>137</td>
<td>Sexual recidivism</td>
<td>M = 13.8</td>
<td>Combining variables from two risk markers led to moderate level of predictive accuracy for sexual recidivism. (Sexual deviance and criminality)</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>Not reported well in paper.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Thornton (2002)</td>
<td>Child molesters</td>
<td></td>
<td>Not applicable</td>
<td>Study 1 = N/A</td>
<td>Study 1 – Compared repeat offenders versus once-only offenders. Repeat offenders had more distorted attitudes, more socioaffective dysfunction and poorer self management.</td>
</tr>
<tr>
<td></td>
<td>UK</td>
<td>Study 1 = 158 (54 Repeaters 104 Once only)</td>
<td></td>
<td></td>
<td></td>
<td>Study 2 – Not relevant. Algorithm used to calculate deviancy. Sexual reconviction associated with deviance score.</td>
</tr>
</tbody>
</table>
Methodological quality of descriptive studies

Quality ratings are presented in Table 1.2, according to the criteria previously described.

Study Objectives

As would be expected in peer reviewed publications, study objectives were clearly reported. Only one study was rated as moderate (Hudson, et al., 2002). The Hudson et al. paper focused on “stable dynamic factors and recidivism” but no specific questions were posed. Clearly reported study aims and objectives made this area a strength of the descriptive studies.

Selection bias

All studies were scored as moderate with respect to selection bias. However closer scrutiny revealed some important limitations. A majority of studies were conducted in North America and five examined child molesters only. All studies used populations of offenders who had to some extent been apprehended for their offences. A proportion of individuals remain who have committed offences and who have never come to the attention of authorities. There are obvious difficulties in identifying these individuals through research but this precluded any study being rated as strong on the selection bias scale.

Also of interest with respect to selection bias are the risk levels of the samples selected in individual studies. The vast majority of studies used participants who had been in prison before being released on probation or parole and these individuals are likely to be at the higher end of the risk scale.
Table 1.2. Quality ratings of descriptive studies included in review

<table>
<thead>
<tr>
<th>No.</th>
<th>Paper</th>
<th>Study Objectives</th>
<th>Selection Bias</th>
<th>Withdrawal</th>
<th>Assessment</th>
<th>Follow up and sample size</th>
<th>Validity and Reliability</th>
<th>Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Allan et al. (2007)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td>2.</td>
<td>Barbaree et al. (2006)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>STRONG</td>
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</tr>
<tr>
<td>3.</td>
<td>Bocaccini et al. (2010)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td>4.</td>
<td>Craig et al. (2006)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
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<td>MODERATE</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td>5.</td>
<td>Hanson &amp; Harris (2000)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td>6.</td>
<td>Hudson et al. (2002)</td>
<td>MODERATE</td>
<td>MODERATE</td>
<td>N/A</td>
<td>STRONG</td>
<td>WEAK</td>
<td>STRONG</td>
<td>MODERATE</td>
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<td>7.</td>
<td>Kingston et al. (2008)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td>8.</td>
<td>Marques et al. (1994)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td></td>
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<td>MODERATE</td>
<td>WEAK</td>
<td>STRONG</td>
</tr>
<tr>
<td>9.</td>
<td>Prentky et al. (1997)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>WEAK</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>STRONG</td>
</tr>
<tr>
<td>10.</td>
<td>Redondo et al. (2007)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>WEAK</td>
<td>MODERATE</td>
<td>WEAK</td>
<td>WEAK</td>
</tr>
<tr>
<td>11.</td>
<td>Roberts et al. (2002)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td></td>
<td>STUDY 2</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Sreenivasan et al. (2007)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>STRONG</td>
</tr>
<tr>
<td>13.</td>
<td>Thornton (2002)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>STRONG</td>
<td>STRONG</td>
</tr>
<tr>
<td></td>
<td>STUDY 1</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Assessment and data collection

Three studies were scored as strong on data collection, seven were scored as moderate, and two were scored as weak. Most studies clearly defined sexual recidivism; however, in some studies no definition was given. In addition, it was often not clear whether assessors were blind to recidivism outcome. This is a potential source of bias that was not adequately reported in some cases.

Sample size and follow-up

Five studies were rated as strong with respect to sample size and follow-up, three were rated as moderate, and three were rated as weak. Two studies did not use a longitudinal design and therefore information on follow-up was not relevant (Hanson & Harris, 2000; Thornton, 2002). The average sample size of included studies was 334. Because the base rate of sexual recidivism is relatively low over moderate follow-up periods (Thornton, 2002), length of follow-up must also be taken into account. Mean length of follow-up was 6.1 years when one outlier was removed (Roberts, et al., 2002). It is widely thought that the observed rate of sexual recidivism is approximately 10-15 per cent after five years (Hanson & Morton-Bourgon, 2004), suggesting that individual studies may be identifying between 30 and 45 individuals who have been recorded as sexually recidivating. Despite this difficulty, the majority of studies used samples that were adequate in relation to the statistical analyses used. Hudson et al. (2002), Marques et al. (1994) and Redondo et al. (2007) had relatively small sample sizes in combination with relatively short follow-up periods, undermining the quality of these three studies.
Measures used: validity and reliability

A vast array of measures was used. These included 30 different psychometric measures and six different actuarial risk assessment instruments. In addition, some studies (Sreenivasan, et al., 2007) utilised their own measures which were operationalised and coded by a research team. The Thornton (2002) study included data on the reliability of the scales used, but in many cases information on the reliability and validity of measures was not included. This made reliability and validity difficult to assess and may be due to limitations in terms of the publication of studies in peer-reviewed journals. Three studies were rated as strong, nine were rated as moderate, and only one was rated as weak (Marques, et al., 1994). The Marques et al. (1994) study did not report on validity or reliability of measures used.

Data analysis

Statistical analysis was a strength generally of the descriptive studies. Only one study was rated as moderate (Hudson, et al., 2002) and one study was rated as weak (Redondo, et al., 2007). It was not clear from the report what method of data analysis was used in the Redondo et al. (2007) study and in general this was a weak paper. The following methods of data analysis were used: factor analysis, principal components analysis, discriminant analysis, correlational analysis, logistic regression analysis (of various different types), survival analysis and area under the curve (AUC) receiver operating characteristics (ROC) to assess predictive accuracy. Some studies did not provide adequate descriptive data in order to assess generalisability of their findings but on the whole, data analysis was well reported. Several studies performed some kind of factor or components analysis of psychometric or risk assessment data and then included the resulting factors in a regression analysis with sexual recidivism as the
outcome variable.

Results

The results of the 13 studies as a body of literature are not particularly coherent and this perhaps reflects the way in which they sought to explore the data rather than being hypothesis driven. Eight studies were rated as being strong, four were rated as being moderate and one was rated as being weak. Results will be discussed in more detail in the narrative section below.

Description of studies: hypothesis driven studies

Of the 14 included studies identified as being hypothesis driven, eight were conducted in Canada, two in the UK, and one each in the Netherlands, New Zealand and Sweden. The studies spanned the years 2004 to 2010 and included various populations. Eleven studies examined mixed offender type samples while two studies examined child molesters exclusively and one study examined mentally disordered adult rapists exclusively. The mean sample size was 340 and of those studies which clearly reported length of follow up, the mean was 7.6 years. A number of different variables were assessed for a possible relationship with sexual recidivism. These included Psychopathy (6), Treatment Behaviour (2), Denial (3), Sexual Deviance (4), Intelligence (1), Childhood Maltreatment (1), Hostility (1), Psychiatric Disorder (1) and Self-esteem (1). Several studies examined more than one variable. The majority of these studies used a longitudinal design and both prospective and retrospective designs were represented. Further details of studies and key findings are presented in Table 1.3.

Methodological quality of hypothesis driven studies

Quality ratings are presented in Table 1.4, according to the criteria previously described.
Table 1.3. Characteristics of hypothesis driven studies included in review

<table>
<thead>
<tr>
<th>No.</th>
<th>Study / Country</th>
<th>Population</th>
<th>N</th>
<th>Dep. Variable</th>
<th>Follow-up (Years)</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Beggs &amp; Grace (2008) New Zealand</td>
<td>Child molesters</td>
<td>216</td>
<td>Sexual recidivism</td>
<td>M = 5</td>
<td>PCL-R score correlated with all types of offending. IQ score unrelated to prior sexual and non-sexual offending but those with low IQ more likely to commit violent offence and correlation with sexual recidivism approaching significance.</td>
</tr>
<tr>
<td>16</td>
<td>Firestone et al. (2005) Canada</td>
<td>Mixed offender group. Contact only.</td>
<td>656</td>
<td>Sexual recidivism</td>
<td>M = 12.2</td>
<td>Hostility measured by Buss Darkee Hostility Inventory associated with higher likelihood of sexual and violent recidivism. Hostility added to prediction of sexual and violent recidivism above and beyond Rapid Risk Assessment for Sex Offence Recidivism (RRASOR-mod).</td>
</tr>
<tr>
<td>17</td>
<td>Harkins et al. (2010) UK</td>
<td>Mixed offender group. Small number of non-contact offenders.</td>
<td>180</td>
<td>Sexual recidivism</td>
<td>M = 10.3</td>
<td>For two of three measures, high levels of denial associated with decreased recidivism. Little difference in recidivism rates of low risk offenders. But in high risk group denial consistently associated with decreased recidivism.</td>
</tr>
<tr>
<td>18</td>
<td>Hildebrand et al. (2004) Netherlands</td>
<td>Adult rapists. Mentally disordered offenders.</td>
<td>94</td>
<td>Sexual recidivism</td>
<td>M = 11.8</td>
<td>High PCL-R score associated with recidivism. Sexual deviance also associated with sexual recidivism. Combination is most potent.</td>
</tr>
<tr>
<td>19</td>
<td>Kingston et al. (2010) Canada</td>
<td>Convicted sex offenders assessed at sexology clinic. Mix of intrafamilial and extrafamilial child molesters and rapists.</td>
<td>586</td>
<td>Sexual recidivism</td>
<td>M = 10.6</td>
<td>Study investigated four possible indicators of sexual sadism and assessed their predictive validity with respect to sexual recidivism. Found that behavioural indicators of sexual sadism but not DSM diagnosis predictive of sexual recidivism.</td>
</tr>
<tr>
<td>20</td>
<td>Langstrom et al. (2004) Sweden</td>
<td>All convicted sex offenders.</td>
<td>1215</td>
<td>Sexual recidivism</td>
<td>M = 5.7</td>
<td>Studied relationship between psychiatric disorder and recidivism among nationwide cohort of sexual offenders. Alcohol use disorder, drug use disorder, personality disorder and psychosis were most frequent diagnoses. All these factors increased risk for sexual recidivism.</td>
</tr>
<tr>
<td>21</td>
<td>Langton et al. (2008) Canada</td>
<td>Rapists Extra familial child molesters Intra familial child molesters Mixed group.</td>
<td>436</td>
<td>Sexual recidivism</td>
<td>M = 5.5</td>
<td>Only small percentage of sample in complete denial (10%). Dichotomous denial / minimisation variable failed to predict sexual recidivism in full sample as did denial section of Denial Minimisation Checklist (DMCL-III). Higher levels of minimisation predicted sexual recidivism among higher risk offenders when controlling for treatment completion status and psychopathic traits.</td>
</tr>
<tr>
<td>No.</td>
<td>Study / Country</td>
<td>Population</td>
<td>N =</td>
<td>Dep. Variable</td>
<td>Follow-up (Years)</td>
<td>Main Findings</td>
</tr>
<tr>
<td>-----</td>
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</tr>
<tr>
<td>22</td>
<td>Langton et al.  (2006) Canada</td>
<td>175 rapists 155 child molesters 93 familial offenders 45 mixed offenders 5 offenders with adult male victims 3 non contact offenders</td>
<td>476</td>
<td>Sexual recidivism</td>
<td>M = 5.9</td>
<td>Small but significant correlation between PCL-R and Response to treatment (reversed) scale indicates psychopathic traits associated with negative behaviours in treatment. Psychopathy a significant predictor of serious recidivism. Interaction effect: More psychopathic offenders who responded poorly to treatment recidivated sexually at faster and higher rate than nonpsychopathic offenders who responded similarly to treatment.</td>
</tr>
<tr>
<td>23</td>
<td>Nunes et al.  (2007) Canada &amp; USA</td>
<td>Mix of incest and extrafamilial child molesters and rapists</td>
<td>1 = 489 2 = 490 3 = 73</td>
<td>Sexual recidivism</td>
<td>1 = 8.2 2 = 5.0 3 = 4.8</td>
<td>Investigated whether there were variables that moderated the relationship between denial and sexual recidivism. First study found that relationship moderated by risk but not psychopathy. Denial associated with increased recidivism in low risk offenders. Findings replicated in two subsequent independent samples.</td>
</tr>
<tr>
<td>24</td>
<td>Olver &amp; Wong   (2006) Canada</td>
<td>Mixed offender group. Stratified by offender type (i.e. Rapist, child molester etc.)</td>
<td>156</td>
<td>Sexual recidivism</td>
<td>M = 9.9</td>
<td>PCL-R predicted nonssexual recidivism after controlling for age and offence history. Much weaker in predicting sexual recidivism. Sexual deviance significantly related to sexual recidivism. Significant interaction between psychopathy and sexual deviance together with results of survival analysis suggest that psychopathy could potentiate the risk of recidivism.</td>
</tr>
<tr>
<td>25</td>
<td>Olver &amp; Wong   (2009) Canada</td>
<td>Mixed offender group. Stratified by offender type (i.e. Rapist, child molester etc.).</td>
<td>156</td>
<td>Sexual recidivism</td>
<td>M = 9.9</td>
<td>Psychopathy is a strong predictor of treatment dropout. Violence Risk Scale – Sex Offender (VRS-SO) change score associated with reductions in sexual and violent recidivism after effects of PCL-R and risk controlled for. Offenders who show positive therapeutic change less likely to be involved in both sexual and violent recidivism after potential contributions of measures of psychopathy and sexual offending risk are taken into account.</td>
</tr>
<tr>
<td>26</td>
<td>Seto et al.   (2004) Canada</td>
<td>Sex offenders with child victims.</td>
<td>1 = 113 2 = 145</td>
<td>Sexual recidivism</td>
<td>1. M = 5.0 2. M = 5.3</td>
<td>Screening Scale for Paedophilic Interests (SSPI) significantly correlated with violent recidivism but non significantly with sexual recidivism in first sample. Significant positive correlation in second sample. Interaction demonstrated between deviant sexual interests and psychopathy.</td>
</tr>
<tr>
<td>27</td>
<td>Thornton et al.  (2004) UK</td>
<td>Mixed sex offender group</td>
<td>225</td>
<td>Sexual recidivism</td>
<td>Community sample = 6 Prison sample = 4</td>
<td>Self esteem assessed prior to treatment in two groups of sexual offenders. Relationship between pre-treatment self-esteem and sexual recidivism explored. Lower levels of self-esteem associated with higher levels of sexual recidivism in both samples.</td>
</tr>
</tbody>
</table>
Table 1.4. Quality ratings of hypothesis driven studies included in review

<table>
<thead>
<tr>
<th>No.</th>
<th>Paper</th>
<th>Study Objectives</th>
<th>Selection Bias</th>
<th>Withdrawal</th>
<th>Assessment</th>
<th>Follow up and sample size</th>
<th>Validity and Reliability</th>
<th>Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Beggs &amp; Grace (2008)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>STRONG</td>
<td>WEAK</td>
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</tr>
<tr>
<td>15</td>
<td>Dietrich et al. (2007)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
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<tr>
<td>16</td>
<td>Firestone et al. (2005)</td>
<td>STRONG</td>
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<td>MODERATE</td>
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<td>MODERATE</td>
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<td>17</td>
<td>Harkins et al. (2010)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>MODERATE</td>
<td>MODERATE</td>
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<td>18</td>
<td>Hildebrand et al. (2004)</td>
<td>STRONG</td>
<td>WEAK</td>
<td>N/A</td>
<td>STRONG</td>
<td>MODERATE</td>
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<td>MODERATE</td>
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<tr>
<td>19</td>
<td>Kingston et al. (2010)</td>
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<td>MODERATE</td>
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<td>20</td>
<td>Langstrom et al. (2004)</td>
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<td>STRONG</td>
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<td>21</td>
<td>Langton et al. (2006)</td>
<td>STRONG</td>
<td>MODERATE</td>
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<tr>
<td>22</td>
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<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
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<td>MODERATE</td>
<td>STRONG</td>
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<td>Nunes et al. (2007)</td>
<td>STRONG</td>
<td>MODERATE</td>
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<td>MODERATE</td>
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<td>25</td>
<td>Olver &amp; Wong (2009)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>N/A</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>STRONG</td>
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</tr>
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<td>26</td>
<td>Seto et al. (2004)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>MODERATE</td>
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<td>MODERATE</td>
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</tr>
<tr>
<td>27</td>
<td>Thornton et al. (2004)</td>
<td>STRONG</td>
<td>MODERATE</td>
<td>MODERATE</td>
<td>STRONG</td>
<td>MODERATE</td>
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</tbody>
</table>
Study objectives

Study aims and objectives were clearly reported in the all hypothesis driven studies. All of the studies were rated as strong.

Selection bias

Thirteen of the 14 studies were rated as moderate in terms of selection bias. Only one was rated as weak (Hildebrand, et al., 2004). Of the 14 studies, eight of these were conducted in Canada, making it difficult to ascertain how generalisable these studies are to non-Canadian populations. Two studies examined child molesters exclusively (Beggs & Grace, 2008; Seto, et al., 2004) and one studied Dutch mentally disordered adult rapists exclusively (Hildebrand, et al., 2004). The generalisability of the Hildebrand et al. study is especially questionable as these individuals are unlikely to be representative of sexual offenders generally. It is not clear if the conclusions drawn apply to non-mentally disordered offenders. Taken as a group, the hypothesis driven studies were similar to the descriptive studies in that participants were generally drawn from relatively high risk groups. Many were drawn from Canadian medium security federal penitentiaries and few community samples were used.

Assessment and data collection

Seven studies were rated as strong, five were rated as moderate and one was rated as weak in this section. Sexual recidivism was clearly defined more often than among the descriptive studies although again it was not always clear if researchers had been blind to recidivism outcome. The Dietrich et al. (2007) study was particularly poorly reported as sexual recidivism was not defined and because many other details were not reported.
Sample size and follow-up

The mean sample size was 340 and mean length of follow-up was 7.6 years. No hypothesis driven studies had sample sizes of less than 250 in combination with a follow up period of less than five years. The Hildebrand et al. (2004) study had a small sample size (N= 94) although it had a relatively lengthy follow-up period while the Dietrich et al. (2007) study had the smallest sample and it was not clear how long follow up was. Hildebrand et al. (2004), Beggs and Grace (2008) and Dietrich et al. (2007) were the three weakest studies and indeed it was difficult to determine how long follow-up was in the Dietrich et al. (2007) study, a crucial factor in terms of methodological quality in the sexual recidivism literature. Overall, the hypothesis-driven studies appear to be of higher quality than the descriptive studies with respect to sample size and length of follow-up.

Measures used: validity and reliability

Far fewer psychometric measures were used in the hypothesis driven studies and data pertaining to reliability and validity were reported more often than among the descriptive studies. The Psychopathy Checklist Revised (PCL-R; Hare, 1991) was used in a number of studies and in some cases some method of assessing treatment behaviour or treatment change was operationalised and assessed. The Dietrich et al. study was again considered to be the weakest in this group since information on validity and reliability of measures was not adequately reported. In general, since fewer measures were used, and reliability and validity more often reported, the quality of these studies would appear to be better than that of the descriptive studies.
Data analysis

The following methods of data analysis were used: descriptive statistics and correlation data, chi square analyses, survival analyses and some form of logistic regression analysis. Generally, data analysis was well reported and described. Only two studies did not receive strong ratings (Dietrich, et al., 2007; Hildebrand, et al., 2004). Both of these studies were hampered by small sample sizes and were given moderate ratings.

Results

The results of the hypothesis driven studies are more coherent and will be briefly described. Five studies focused on the relationships between psychopathy (or PCL-R score) and recidivism. Some of this work had followed on from a study conducted by Seto and Barbaree who suggested that offenders who scored higher on psychopathy and behaved better in treatment were four times more likely than other offenders to commit a new offence (Seto & Barbaree, 1999). Two of the studies included in this review sought to explore this further, (Langton, et al., 2006; Olver & Wong, 2009) and found that while psychopathy predicts general recidivism, its relationship with treatment behaviour is more difficult to determine. Other hypothesis driven studies provided support for the contention that psychopathy is associated with recidivism, including sexual recidivism (Beggs & Grace, 2008), as is sexual deviance (Hildebrand, et al., 2004) which includes paedophilic interests (Seto, et al., 2004) and sexually sadistic interests (Kingston, et al., 2010). There were results relating to denial of sexual offending and its relationship with recidivism. Harkins et al. (2010) found that higher levels of denial were associated with decreased recidivism in high risk offenders and Langton et al. (2008) found that a dichotomous denial classification failed to predict recidivism in their sample of sexual offenders. Nunes et al. (2007) found that denial was
associated with increased recidivism in low risk offenders. Dietrich et al. (2007) found that certain types of childhood maltreatment (but not childhood sexual abuse) predicted recidivism. Firestone et al. (2005) found that hostility predicted sexual and violent recidivism. Finally, Thornton et al. (2004) found that pre-treatment self-esteem predicted sexual recidivism: those offenders lowest in self esteem were most likely to sexually recidivate.

**Summary and critical appraisal of included studies**

The results of the descriptive studies are somewhat divergent and lack coherence. However, the studies generally found that various different measures of sexual deviance (Craig, et al., 2006), and antisociality (Allan, et al., 2007) or criminality (Sreenivasan, et al., 2007) are associated with both general recidivism and sexual recidivism in sexual offenders.

This evidence unsurprisingly broadly supports the meta-analytic reviews conducted by Hanson and colleagues, as does the other section of studies which the author termed hypothesis driven. Here again, sexual deviance (Olver & Wong, 2006) and in this case, psychopathy (Beggs & Grace, 2008), which conceptually overlaps with antisociality, were both found to be associated with general and sexual recidivism. It was suggested that the combination of sexual deviance and psychopathy was most potent in terms of sexual recidivism (Hildebrand, et al., 2004). In addition, it was found that denial was not related to sexual recidivism in the way commonly expected. Harkins et al. found that for some offenders, higher levels of denial were associated with decreased recidivism (Harkins, et al., 2010) while Nunes et al. found that for some offenders higher levels of denial were indeed associated with increased recidivism. The relationships are complex (Nunes, et al., 2007).
It is evident that many of the studies are hampered by difficulties with low base rates of sexual recidivism, and many have relatively small sample sizes and short follow-up periods, limiting their statistical power. A substantial proportion was conducted in North America and many of the studies used participants from prison populations. There are difficulties in assessing the generalisability of these studies since participants are likely to be at higher risk of reoffending and there is limited data on lower risk offenders. Crucially, data pertaining to unconvicted sexual offenders is very rarely presented due to difficulties in the recruitment of such participants.

Researchers in the sexual violence field have been creative and innovative in the design of studies examining risk factors for sexual violence. However, because many studies use data that has been utilised for other purposes, and because longer follow-up periods are needed to overcome the problem of low base rates, often the psychometric and risk measures that are used are not suitable. These challenges have important implications for both future research and practice.

Discussion

The results of this systematic review indicate that psychopathy (or perhaps antisociality more generally) and sexual deviance are associated with sexual recidivism in adult male sexual offenders. The combination of psychopathy and sexual deviance appears to be most potent in terms of risk of sexual recidivism. Nine studies found that sexual deviance was associated with sexual recidivism; five found that psychopathy was associated with general recidivism and seven found that a more general antisociality was associated with general recidivism.

The other results are less clear. Of the three studies that examined the relationship of denial and minimisation to sexual recidivism, Langton et al. (2008)
found that a dichotomous denial categorisation did not predict sexual recidivism, while higher levels of minimisation predicted sexual recidivism in higher risk offenders when controlling for treatment completion status and psychopathic traits. Harkins et al. (2010) found that higher levels of denial were associated with decreased recidivism. In their high risk group denial was consistently associated with decreased recidivism. Nunes et al. (2007) found that, among their low risk group, denial was associated with increased recidivism, suggesting that the relationship between these variables is complex. Treatment behaviour, particularly among psychopaths was also examined in two studies. Inconsistent results were obtained here, but a consensus seems to have emerged in that psychopathic offenders are not completely incapable of benefitting from treatment. The other studies are difficult to assess as a group as they are individual studies examining one particular variable’s relationship with sexual recidivism. Although many were well designed it is difficult to make any strong conclusions about these findings.

Despite the results of this review being generally consistent with the previous meta-analytic work of Hanson and colleagues (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005; Mann, et al., 2010), these results should not yet be taken to indicate that that sexual deviance and antisociality are well established predictors of sexual recidivism and that other psychological factors are not. Our understanding of the relationships between these factors is quite limited. In particular, despite the innovative and creative methods used by researchers and practitioners in the sexual violence field, there are some methodological limitations with the corpus of research on psychological risk factors for sexual recidivism.

Firstly, there are difficulties in interpreting the generalisability of studies. The majority of research has been conducted in North America and to a lesser extent the
United Kingdom and New Zealand. Replications in non-English speaking countries such as those of continental Europe or Asia would be most welcome, to establish whether or not any possible relationship is universal or is culture-bound. Further difficulties with generalisability occur due to the recruitment of participants. A substantial proportion of studies in this sample recruited participants from medium and high security penal establishments. There are good reasons for this selection strategy, as this perhaps overcomes difficulties with low base rates of sexual recidivism and because community samples are more difficult to recruit. However, it also results in studies that concentrate on relatively high risk sexual offenders and much less is known about lower risk offenders who may not have been subject to a prison sentence or who may not have been treated. It is possible that risk factors are different for lower risk offenders. Indeed this is suggested by the study conducted by Harkins et al. (2010) on denial and minimisation. The most obvious difficulty in generalisability is that studies have examined convicted offenders and recidivism rates are for those who have been reconvicted. Although some studies are beginning to emerge which examine non-convicted individuals, (eg. Nuetze, Seto, Schaefer, Mundt, & Beier, 2011) we know very little about a potentially large population of un-convicted sexual offenders. There are obvious practical and ethical difficulties in the recruitment of such individuals.

Secondly, there are difficulties with sample size and length of follow-up. As indicated previously, because of relatively low base rates of sexual recidivism, estimated at 10-15 per cent after five years, studies with small samples are making inferences based on very small numbers of sexual recidivists. Some studies (notably Hanson & Harris, 2000) have attempted to circumvent this difficulty by retrospectively comparing recidivists versus nonrecidivists, but in this case other difficulties emerge. There may be bias introduced due to the retrospective collection and interpretation of
data. It should be noted that the group of studies termed “hypothesis driven” tended to have longer follow-up periods and larger samples. These studies were generally methodologically stronger and replications of these studies are perhaps warranted.

Thirdly, a substantial proportion of studies did not report data on the reliability of the psychometric measures used, or did not adequately describe the statistical methods used to analyse data. These omissions could simply have been a flaw in the reporting of the study, or alternatively they may be due to journal editors asking authors to remove detail from the text in order to conserve space. It may be important to consider editorial methods in the future, since the detailed and accurate reporting of a study are important considerations when assessing study quality. Because of the caveats raised the authors suggest cautious interpretation of the results of the present review.

**Implications for practice**

The results of the present systematic review are unlikely to change the way in which actuarial risk assessment tools are used to assess risk of sexual recidivism. However, the results may have important implications for the structured professional judgement method of risk assessment. The Risk for Sexual Violence Protocol (RSVP) specifies twenty-two items that are used to inform a risk formulation of the offender. There are items relating to sexual deviance, psychopathy, and denial, as well as markers of antisociality, such as problems with employment and nonsexual criminality. If there is not strong evidence that each factor is associated with sexual recidivism then perhaps caution should be exercised when making risk judgements based on these items. It is important to emphasise that the developers of structured professional judgement tools discourage reliance on individual items or on adding items so that a risk score is produced, however practitioners should perhaps remain sceptical about individual risk
factors for which the evidence is mixed (such as denial).

Similarly, the evidence that psychopathic individuals cannot benefit from treatment is also questionable. Barbaree (2005) noted that opinion makers in the sexual violence field were perhaps too quick to draw conclusions from the previous Seto and Barbaree (1999) paper that were not supported by the data. This systematic review suggests that risk assessment and treatment providers should be cautious before any changes are made to practice.

**Implications for research**

While acknowledging that there are many obstacles to conducting high quality research in the sexual violence field, this systematic review has found that the methodological quality of studies could be improved upon. Researchers have been innovative in terms of study design and in their use of samples; however longer term follow up is necessary to identify psychological risk factors. The field would also benefit from varying study designs so that there might be some degree of triangulation of results. In this way, studies which compare samples of recidivists versus non-recidivists might become more useful.

As indicated above there is also a need for studies that recruit and examine unconvicted sexual offenders and convicted offenders residing in the community. There are obstacles to recruitment of these individuals; however studies are beginning to emerge so that we have an understanding of all sexual offenders, not only higher risk individuals.

Further research might also investigate the practice of sexual violence risk assessment, particularly the practice of structured professional judgement risk assessment methods. The current body of research suggests that sexual deviance and
antisociality are associated with sexual recidivism but we do not know how these factors are combined in practice to arrive at a risk judgement.

**Conclusions**

This systematic review of the empirical status of psychological risk factors associated with sexual recidivism demonstrates that although there is support for the notion that sexual deviance and antisociality are associated with sexual recidivism there are important caveats. There are important methodological weaknesses with respect to generalisability, low base rates of sexual recidivism and in the reporting of results. So that practice is informed by robust research evidence, three aims for future research are suggested: First, study of non-convicted or community populations; second, innovation with respect to study design so that triangulation of results might be possible; third, longer follow-up periods for those studies that do use longitudinal designs. Important gains have been made but the main conclusion of this systematic review is that more high quality research is necessary.

**References**


Abuse: A Journal of Research and Treatment, 16(1), 1-24. doi:
10.1177/107906320401600101


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review and annotated bibliography. *International Journal of Epidemiology, 36*, 666-676.


CHAPTER II

ADDITIONAL INTRODUCTION AND AIMS OF THESIS
Summary of Systematic Review

The systematic review (Chapter 1) sought to answer the question: “What psychological factors are associated with sexual recidivism in adult male contact sexual offenders?” This question had previously been addressed in a series of meta-analyses. Hanson and Bussière (1998) and Hanson and Morton-Bourgon’s (2004, 2005) meta-analyses revealed that sexual deviance and antisocial orientation were empirically supported risk factors for recidivism. In a more recent meta-analysis, Mann et al. (2010) conceptualised risk factors somewhat differently and reported that the following were empirically supported: sexual preoccupation; any deviant sexual interest; offence supportive attitudes; emotional congruence with children; lack of emotionally intimate relationships with adults; lifestyle impulsivity; general self-regulation problems; poor cognitive problem solving; resistance to rules and supervision; grievance / hostility; and negative social influences.

Significantly, the critical appraisal of studies was neglected in these large scale analyses. The systematic review addressed this shortcoming. A literature search was conducted, multiple electronic databases searched, and key journals hand-searched. Twenty-seven studies met inclusion criteria. Synthesis of these 27 studies revealed results that were broadly in agreement with those of Mann et al. (2010). Sexual deviance and psychopathy were associated with sexual recidivism. Inconsistent results were found with respect to denial. Despite these results, methodological weaknesses in the literature were identified and the evidence was not considered to be conclusive. Further research is required to explore the relationships between variables.
Issues which arose from the systematic review

The real-world clinical practice of risk assessment emerged from the systematic review as an area that required further research, particularly the practice of risk assessment using the structured professional judgement (SPJ) method. If it is accepted that some psychological factors are associated with sexual recidivism and some are not, then an important question emerged from this review: How do assessors come to form a risk judgement using the SPJ method? Other approaches are actuarial or non-discretionary (Hart & Logan, 2011). In these approaches a risk score is calculated through complicated algorithmic and statistical procedures, a process which is relatively transparent. In the SPJ method much less is known about the process through which an assessor forms a judgement with respect to the risk that a particular offender poses. Key figures in the development of the SPJ method have acknowledged this fact: “A priority for future research is to examine how evaluators make summary risk ratings or case prioritization ratings” (Hart & Boer, 2010, p. 287). They suggested that “talk-aloud” methods and interrogation of these data through qualitative analysis might be useful (Hart & Boer, 2010).

The present study sought to examine the process through which a risk judgement is made in a different way to that suggested by Hart and Boer (2010). Specifically, this study asked: are empirically supported risk factors used to form risk judgements made using the SPJ method in a specialist sex offender liaison service in Scotland or are other factors important? Regression analyses of risk judgements made by assessors in the NHS Lothian Sex Offender Liaison Service were used to explore these issues. Because the study examined practice in one service in Scotland, generalisability is limited. Nevertheless, the author considered that an important aim of the study was to examine whether key predictors were given the weighting that the literature suggests they deserve in the clinical practice of this
service. To the author’s knowledge, these questions had not been addressed in previous research.

Levenson and Morin (2006) used a similar methodology to ascertain which independent variables predicted civil commitment in a sample of sexual offenders being evaluated as sexually violent predators in Florida. This recommendation is reserved for only those offenders who are deemed to be at very high risk of reoffending. It was found that diagnoses of paedophilia and paraphilia not otherwise specified, psychopathy, actuarial risk assessment score, younger age of victim, and nonminority race, all predicted recommendation for civil commitment. There are important differences between Levenson and Morin’s (2006) study and the present study. First, the present study looked at predictors of risk judgement specifically using the SPJ method, not evaluation for civil commitment as in Levenson and Morin’s study. Second, Levenson and Morin included 29 independent variables in their analysis. This could be considered problematic as one of the assumptions regarding use of regression is that relevant variables are included in the analysis. In the present thesis, five factors were selected for special consideration based upon the results of the systematic review and previous meta-analyses. Thus, relevant variables were included. The independent variables selected are described below. Variables that were strongly associated with sexual recidivism in the literature were selected. In addition, one variable was selected because of its topical and controversial nature (denial).

1. Antisocial Orientation / Psychopathy

Antisocial orientation, along with sexual deviance, has been found to be associated with sexual recidivism in previous meta-analyses (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004; Hanson & Morton-Bourgon, 2005). In the most recent meta-analysis Mann et al. (2010) divided antisocial orientation into further sub-categories. These included:
lifestyle impulsiveness; resistance to rules and supervision; and, negative social influences. The broader category of antisocial orientation and the subcategories identified by Mann et al. overlap a great deal with the criteria for antisocial personality disorder as well as psychopathy. Psychopathy is most often measured and diagnosed through use of the Psychopathy Checklist Revised (PCL-R; Hare, 1991).

The systematic review (Chapter 1) found that psychopathy (more specifically, PCL-R score) was associated with recidivism. Hildebrand et al. (2004) found that PCL-R score was a statistically significant predictor of recidivism among Dutch mentally disordered sexual offenders. Further, Hildebrand et al. noted that although both factors of PCL-R score predicted reoffending, the predictive validity of factor two (lifestyle / antisocial dimension) was higher than that of factor one (interpersonal / affective dimension). It was hypothesised that PCL-R score would be a statistically significant predictor of risk judgement score in the present study.

2. Sexual Deviance

The systematic review suggested that sexual deviance is an empirically supported risk factor for sexual recidivism (Chapter 1). Similar conclusions were reached in previous meta-analytic studies. Sexual deviance was subdivided by Mann et al. (2010) into three discrete categories: sexual preference for children; sexualised violence; and, multiple paraphilias. Each one of these categories was reported to be an empirically supported psychologically meaningful risk factor for sexual recidivism.

Sexual deviance was also identified as being associated with sexual recidivism in the earlier meta-analyses (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005). Indeed, Hanson and Morton-Bourgon made the point that there is a “general consensus” that
sexual recidivism is associated with deviant sexual interests (Hanson & Morton-Bourgon, 2004, p. 1). Despite these findings, there are difficulties with the definition and measurement of sexual deviance. Stinson and Becker (2008) have noted that there are several methods available for assessing deviant sexual interests. These include physiological measures, such as phallometry (assessment of penile responses to various stimuli), self report measures, and other behavioural measures. Stinson and Becker suggested that these assessment methods may not always be measuring the same thing. In the present study it was hypothesised that sexual deviance would be a statistically significant predictor of risk judgement score.

3. Denial

Researchers examining the links between denial and sexual recidivism have reported mixed findings. This was evident from the systematic review (Chapter 1). Blagden et al. (2011) noted that the majority of prison based sex offender treatment programmes in North America and the UK include denial as a major focus of treatment. Treatment in these programmes often involves the challenging of denial so that the offender takes responsibility for his offending (Ware & Mann, 2012). Yet, interestingly, a number of studies have found no overall effect of denial on sexual recidivism and previous meta-analyses have suggested that there is not a convincing relationship between the two constructs (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005; Mann et al., 2010). Blagden et al. (2011) suggested that this emphasis on responsibility taking and the challenging of denial may be explained by western religious and moral notions of confession and repentance. Similarly, Ware and Mann (2012) noted that it is a “common-sense” approach to treatment rather than one based upon psychological science. With respect to risk assessment, the relationship between denial and recidivism is questionable, yet denial is included as an item within the RSVP; one reason for its inclusion within the present study.
A recent (narrative-style) review of denial and sexual recidivism concluded that the research literature “does not clearly establish denial as a risk factor, or suggests that, if it is a risk factor, it is a relatively minor one among a specific group of low risk offenders” (Yates, 2009, p. 195). Interestingly, a research study published after Yates’s review found that among high risk offenders denial predicted decreased sexual recidivism (Harkins et al., 2010).

It was hypothesised that denial would not be a statistically significant predictor of risk judgement score, since the relationship with recidivism has not been clarified.

4. Sexual Preoccupation

Sexual Preoccupation was not addressed in the systematic review but was mentioned specifically in the Mann et al. (2010) meta-analysis as being empirically supported and psychologically meaningful. It is described as being an “abnormally intense interest in sex that dominates psychological functioning”. It is different from sexual deviance. Sexual deviance refers to an interest in abnormal or deviant sexual practices, while sexual preoccupation is the intensity of interest in sex. Previous meta-analysis has identified sexual preoccupation as being predictive of sexual recidivism (Hanson & Morton-Bourgon, 2004, 2005) and a more recent large scale study supported this finding (Knight & Thornton, 2007).

Since sexual preoccupation is strongly associated with sexual recidivism, it was hypothesised that this factor would be a statistically significant predictor of risk judgement score in the present study.

5. Problems with intimate relationships

The factor “problems with intimate relationships” did not emerge from the systematic review (Chapter 1). However, previous meta-analyses suggested that it is empirically
supported. Mann et al. (2010) divided the variable into two sub-categories. First, individuals who have no intimate relationships, and second, individuals whose intimate relationships are characterised by conflict. Previous meta-analytic studies have concluded that both subcategories have a significant relationship with recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005). A more recent study found that relationship instability in general was significantly related to all types of offending (Hanson et al., 2007). It was hypothesised that the factor, problems with intimate relationships, would be a statistically significant predictor of risk judgement score in the present study.
Thesis Aims and Objectives

General Aim

To examine statistically significant predictors of sexual violence risk judgements formed using SPJ methods in a specialist sex offender liaison service and to compare these against risk factors that are empirically supported in the literature.

Specific Hypotheses:

1. That psychopathy will be a statistically significant predictor of sexual violence risk score.

2. That sexual deviance will be a statistically significant predictor of sexual violence risk score.

3. That denial will not be a statistically significant predictor of sexual violence risk score.

4. That sexual preoccupation will be a statistically significant predictor of sexual violence risk score.

5. That problems with intimate relationships will be a statistically significant predictor of sexual violence risk score.
CHAPTER III

METHODOLOGY
Overview of Methodology

The study involved the analysis of risk assessments of sexual violence completed by a specialist NHS Sex Offender Liaison Service (SOLS) in southeast Scotland. For each offender assessed by the SOLS a summary judgement is made concerning the offender’s risk of recidivism. The study sought to explore the predictors of these risk judgements and to ascertain whether or not they were predictors of recidivism that were empirically supported by the literature.

Design

The study utilised a quantitative research design to investigate each of the research hypotheses and questions. Some data had previously been collected by the SOLS for the purpose of audit but additional data were required. A database was developed by the author and previously existing data required substantial reorganisation, manipulation, and statistical analysis in order that the research questions could be answered. Initially ordered logistic regression analyses were conducted because the chosen dependent variables were ordinal and because many of the independent variables were also ordinal. Additional analyses were also conducted.

Participants

NHS Lothian Sex Offender Liaison Service (SOLS)

Participants were 96 individuals assessed by the SOLS. The SOLS was established in 2007. Its main aim is to improve management of the most challenging sexual offenders in the community by providing specialist assessment, consultation, advice, training, and clinical supervision to criminal justice agencies. It is led by a consultant clinical psychologist and a consultant forensic psychiatrist. The service takes referrals directly from partner agencies
(particularly criminal justice social work services\textsuperscript{1} and police offender-management units) and provides various levels of input. With respect to risk assessment, the service offers a comprehensive clinical assessment of individuals whom criminal justice agencies are finding difficult to manage. These individuals often attract personality disorder diagnoses (Russell & Darjee, in press). Risk assessment and management advice is offered to the referring agency. Further advice and support is often given since the SOLS is part of the wider multi-agency team involved in managing challenging sexual offenders in the community.

In addition to comprehensive risk assessment, the SOLS offers the following services: (i) telephone or email advice; (ii) attendance at Multi Agency Public Protection Arrangements (MAPPA) meetings and risk management case conferences; (iii) meetings with partner agencies to allow practitioners to discuss difficult cases; (iv) specific case discussion meetings (where an individual case is looked at in detail to provide clinical advice on assessment and management). Individuals for whom comprehensive clinical assessments were completed were included in this study. A small number of specific case discussion meetings were included where there were sufficient data to include these in the analysis. Assessments completed between 2007 and March 2012 were analysed. In instances where there were missing data an attempt was made to secure these data using collateral information. If these could not be obtained the assessment was excluded from the analysis.

The SOLS takes referrals from the Lothian & Borders Community Justice Authority (CJA) area. This area incorporates the City of Edinburgh, West Lothian, Midlothian, East Lothian and Scottish Borders local authority areas and constitutes a mix of urban, rural and semi-rural environments. A recent publication reported that the population is estimated to be 939,020, with approximately half of those (477,660), residing in the City of Edinburgh

\textsuperscript{1} Criminal Justice Social Workers in Scotland carry out a similar role to Probation Officers in other jurisdictions.
(Scottish Government, 2010). In 2010, 599 sexual offenders were registered and at liberty in the CJA area, corresponding to 64 registered sexual offenders per 100,000 of the population. All but three (0.5%) of the registered sexual offenders were male (Scottish Government, 2010).

Assessment Process

The SOLS assessment process involves two components. First, the careful review and analysis of substantial quantities of file information, and second, the clinical interview and assessment of the offender. The file review involves the analysis of the following sources of information (if these are available): mental health records; social work records; medical records; prison records and treatment reports; police reports of offences; and, records of alleged or unconvicted offences. Relevant files are obtained prior to clinical interview with the offender.

Clinical assessment is detailed, lengthy, and takes place over at least two interviews. The offender’s account is compared with information from case files obtained before the interview has taken place. The offender is not compelled to attend and is normally interviewed by two professionals; one male, one female. This arrangement is in place so that any differences in how the offender interacts with males compared to females can be ascertained, at least in a qualitative sense. In practical terms one assessor often leads the assessment while the other takes written notes, although there is a degree of flexibility afforded to assessors with respect to how they choose to manage the assessment process.

Clinical interviews are semi-structured and are conducted in a variety of different environments including psychiatric hospitals and criminal justice social work facilities. The offender is given some information about the purpose of the assessment by their referrer, and then again, at the first assessment appointment. It is explained that a report will be written
about the offender, his situation and his offending. Similarly, it is explained that sensitive questions will be asked and that the assessor will be considering the risk that the offender poses to the safety of others in the community. The following areas are routinely addressed in the assessment interview: (i) current circumstances; (ii) childhood/ family history; (iii) mental health; (iv) medication history; (v) alcohol and substance use; (vi) relationship / sexual history; (vii) employment history; (viii) forensic / criminal history.

A number of specific tools are used in order to aid the gathering of information, and the risk formulation of the offender. Interviews are structured in such a way that all relevant tools and measures can be completed. The risk assessment tools are described below. The Risk for Sexual Violence Protocol is particularly important.

Assessment tools used by the SOLS

Risk for Sexual Violence Protocol (RSVP; Hart et al., 2003)

The RSVP is a structured professional judgement (SPJ) risk assessment tool. It was developed by psychologists in North America. The aim of the RSVP is to provide a guideline for “conducting comprehensive management oriented sexual violence risk assessments” (Hart & Boer, 2010, p. 269). It assists assessors in making decisions about the risk offenders pose with respect to committing further sexually violent offences. It also aids the development of management strategies that should effectively reduce risk (Hart & Boer, 2010). The RSVP defines sexual violence as the “actual, attempted, or threatened sexual contact with another person that is non-consensual” (Hart et al., 2003, p. 2). It is intended for use with men who are aged 18 years or older and who have a known history of sexual violence. It has twenty-two different items which are scored as either: 0, not present; 1, partially present; or, 2, definitely present. A full list of these items is shown in appendix 6. Scores for items 6, 11, 12,
16 were used in the present analysis. The scores for each item are not normally used cumulatively to provide a risk score. That is, a total score ranging from 0 to 44. Instead, the items are used as anchor points in order to aid the assessor’s professional judgement. The assessor uses these items to construct a risk formulation. Future risk scenarios are then detailed and summary risk judgements presented. Crucially, detailed risk management recommendations are provided so that the offender can be managed in a way that reduces or mitigates the risk of recidivism.

With respect to the reliability and validity of the RSVP, Hart and Boer (2010) provided an overview of this literature. They summarised three unpublished studies that examined the inter-rater reliability of the RSVP (Hart, 2003; Watt et al., 2006; Watt & Jackson, 2008). These three studies were conducted in Canada and studied experienced risk assessors. Inter-rater reliability was found to be “good” to “excellent” in all three. (Hart & Boer, 2010). More recently, Sutherland et al. (2012) investigated the inter-rater reliability of the RSVP with a sample of 28 forensic mental health professionals in Scotland. The participants were asked to use the RSVP in order to assess six case vignettes. Sutherland et al. (2012) found that inter-rater reliability was “fair” to “good” and that agreement was highest when the participants were highly trained in forensic risk assessment. In terms of validity, again, much of the research cited by Hart and Boer is unpublished. Rettenberger et al. (2011) noted that little is known about the psychometric properties of the SVR-20, (the forerunner of the RSVP) when compared against actuarial tools and this would appear to be true of the RSVP also. Hanson and Morton-Bourgon (2009) concluded that the predictive accuracy of SPJ methods (including the RSVP) was superior to that of unstructured professional judgement but was not as robust as that of actuarial tools. Hart and Logan (2011) have noted that risk assessment tools should not be judged solely on their predictive accuracy
and have suggested that risk assessment should necessarily inform the treatment and management of the offender.

**Psychopathy Checklist-Revised (PCL-R; Hare, 1991)**

The PCL-R is used routinely by the SOLS. It is the most widely used measure of psychopathy (Hare & Neumann, 2008), a personality style seminally described by Cleckley (1941). Psychopathy was characterised by Cleckley as a profound difficulty in experiencing emotion, in combination with antisociality (Cleckley, 1941). The PCL-R was based on this Cleckleyian definition of psychopathy (Hare & Neumann, 2008). It was developed to provide a reliable and accurate method of identifying the disorder. The instrument itself uses case file information and semi-structured interview to score 20 items on a three point scale. These are coded as 0, 1, or 2. Thus, PCL-R scores range from 0 to 40. A score of 30 or more is required to diagnose psychopathy, with a score of 20 or above denoting partial evidence of psychopathy (Hare, 1991). The SOLS use the PCL-R in order to score item 12 of the RSVP; psychopathic personality disorder.

Although the PCL-R has been described as “the gold standard in psychopathy research” (Westen & Weinberger, 2004, p. 599) and its inter-rater reliability, internal consistency and test-retest reliability reported as being robust (Hare, 2003), it has attracted fierce debate and criticism in recent years (see Hare & Neumann, 2010; Skeem & Cooke, 2010a, 2010b). Much of the criticism has centred on the factor structure of the PCL-R, as well as so-called, “construct drift”. Skeem and Cooke argued that the PCL-R had drifted away from the original Cleckleyian definition of psychopathy by emphasising the centrality of antisociality. Further, they argued that this constituted tautological reasoning and that the PCL-R measure had been conflated with the construct of psychopathy (Skeem & Cooke, 2010a). While these debates are important, they are not the focus of the present study. In the
sexual violence literature, PCL-R score has consistently been associated with both general and sexual recidivism. It was an important aim of the present study to establish how PCL-R score is used by the SOLS to form a judgement about an offender’s risk of recidivism.

**Risk Matrix 2000 (Thornton et al., 2003)**

The Risk Matrix 2000 (Thornton *et al*., 2003) is an actuarial risk assessment tool widely used in the United Kingdom. It was developed to assess risk of sexual and violent offending in adult males who have been convicted of a sexual offence (Kingston *et al*., 2008). It has two scales: Risk Matrix/Sex (RM2000/S), and Risk Matrix/Violence (RM2000/V). These provide an estimate of the likelihood of reconviction for a sexual or non-sexual violent offence. Coding of RM2000/S is relatively intuitive: number of previous sexual appearances; number of criminal appearances; and, age; are used to calculate a risk score. Subsequently, four “aggravating factors” are considered and the initial risk score is amended accordingly. Scores are used to assign individuals to low, medium, high, and very high risk categories. RM2000/V is coded in a similar way. The convergent validity and predictive accuracy of the Risk Matrix 2000 was investigated by Kingston *et al*. (2008) who followed up a sample of 351 offenders over an average of 11.4 years. It was found that the Risk Matrix 2000 score was correlated with those of other actuarial risk assessment instruments and that the Risk Matrix 2000 predicted recidivism at above chance levels, demonstrating medium to large effect sizes (Kingston *et al*., 2008). Grubin (2008) assessed the Risk Matrix 2000 for use in Scotland. It was reported that the Risk Matrix 2000 was highly reliable and that its predictive accuracy was “moderate”, being comparable with other assessment instruments. Grubin argued that the Risk Matrix 2000 should be used as part of an assessment process, not in isolation. The SOLS uses the Risk Matrix 2000 in this way, as an additional source of
information about the level of risk that each offender poses. Risk Matrix 2000 scores were not used in the present analysis.

**International Personality Disorder Examination (IPDE; World Health Organisation, 1997)**

The IPDE is a semi-structured instrument designed for use by trained professionals in order that diagnoses of personality disorder can be made according to both the DSM-IV (American Psychiatric Association, 2000) and ICD-10 (World Health Organisation, 2004) diagnostic frameworks. The IPDE uses 157 criteria scored through interview with the client and these are scored as: 0, absent or within normal range; 1, present to an accentuated degree; or 2, pathological / meets criterion. Initial validation studies of the IPDE suggested that it was viewed as helpful by clinicians, and that it demonstrated moderate inter-rater reliability across cultures (Loranger et al., 1994). It is the most widely used interview of its kind (World Health Organisation, 1997). The IPDE is used by the SOLS to score several items of the RSVP.


The Sexual Sadism Scale was developed after it was found that there was confusion about the diagnostic criteria for sexual sadism in addition to limitations with respect to the reliability of diagnosis. Sexual sadism itself refers to a paraphilia where individuals gain sexual gratification from the infliction of pain or humiliation on others (Kingston et al., 2010). The scale consists of 17 items. Most items can be answered using crime scene information or using police reports of the offence. It was argued that this approach limits any reliance on the self-report of the offender, or on any inferences or assumptions made by the assessor (Marshall & Hucker, 2006). Nitschke et al. (2009) reported that the scale is highly
reliable, although they added one additional item. Kingston et al. (2010) explained that the predictive validity of the sexual sadism scale (i.e. its ability to predict sexual recidivism) has not yet been evaluated. The Marshall Hucker scale is used by the SOLS to assess sexual sadism as a diagnosis. Diagnosis would indicate that there is definite evidence of sexual deviance. This corresponds to item 11 of the RSVP.

**Screening Scale for Pedophilic Interests (SSPI; Seto & Lalumiere, 2001)**

The SSPI is a brief screening tool which measures attraction to pre-pubescent children based on the characteristics of the offender’s previous victims. The SSPI is significantly associated with phallicometric assessment of attraction to children, and has been shown to be associated with both violent and sexual recidivism in sexual offenders with child victims (Seto et al., 2004). It is used by the SOLS as a screening tool to assess paedophilia. Again, diagnosis would indicate that there is definite evidence of sexual deviance, corresponding to item 11 of the RSVP.

**Dependent variables**

Separate ordered logistic regression analyses were conducted using two dependent variables: Multi Agency Public Protection Arrangements (MAPPA) risk level, and Risk Management Authority (RMA) risk level. The SOLS does not use these criteria in assessment reports to describe risk but records these outcome levels as a way of classifying the cases assessed. This allows comparison of the individuals they have assessed with other services who also assess and treat sexual offenders. Both measures of risk level are based upon the material collected and structured using the RSVP and the psychological formulation that the risk assessor has generated.

**Multi-Agency Public Protection Arrangements (MAPPA) Risk Level**
MAPPA is a framework which “joins up the agencies who manage offenders” (Scottish Government, 2011). It was introduced in Scotland in 2007 following a number of Governmental reports which recommended greater inter-agency cooperation (Cosgrove, 2006; Irving, 2005). MAPPA arrangements apply to all registered sex offenders in Scotland. MAPPA specifies that risk assessment should determine the level of risk that each offender poses. These are shown below.

1. **LOW**: Current evidence does not indicate likelihood of causing serious harm.

2. **MEDIUM**: There are identifiable indicators of serious harm. The offender has the potential to cause such harm, but is unlikely to do so unless there is a change in circumstances, for example failure to take medication, loss of accommodation, relationship breakdown, drug or alcohol misuse.

3. **HIGH**: There are identifiable indicators of risk of serious harm. The potential event could happen at any time and the impact would be serious.

4. **VERY HIGH**: There is an imminent risk of serious harm. The potential event is more likely than not to happen imminently and the impact would be serious.

(Scottish Government, 2012, p. 43)

**Risk Management Authority (RMA) Risk Level**

The RMA is a Scottish non-departmental public body established in 2005. It is tasked with protecting the public by ensuring that risk assessment and risk management practices are “robust and effective” (Risk Management Authority, 2012). They also have a duty to maintain the processes supporting the Order for Lifelong Restriction (OLR) sentence. This is
a sentence used to impose lifetime supervision to those offenders who pose the highest level of risk to the community. The RMA requires risk assessors to provide an opinion on each offender’s risk level (detailed below). The SOLS records both MAPPA and RMA risk level definitions as described above.

1. **LOW**: This offender may have caused serious harm in the past, but a repeat of such behaviour is not probable. They are likely to co-operate well with risk management strategies and they may respond to treatment. All probable future scenarios for this offender have sufficient protective factors to support ongoing desistance from offending.

2. **MEDIUM**: This offender is capable of causing serious harm, but in the most probable future scenarios there are sufficient protective factors to moderate that risk. The offender evidences the capacity to engage with risk management strategies and may respond to treatment. This offender may become a high risk in the absence of the protective factors identified in this report.

3. **HIGH**: This offender presents an ongoing risk of committing an offence causing serious harm. The identified scenarios involve pervasive risk and there are few if any protective factors to mitigate that risk. The offender requires long-term risk management, including supervision and where the offender has the capacity to respond, ongoing treatment.

   (Risk Management Authority, 2006, p. 40)

**Independent Variables (Operational Definitions)**

The following independent variables were entered into the regression analyses based upon a systematic review of the literature (Chapters 1 and 2):
Psychopathy

Psychopathy was assessed according to the Psychopathy Checklist-Revised (PCL-R) criteria (Hare, 1991) and these scores were then coded according to the guidance for item 12 of the RSVP (Hart et al., 2003, pp. 64-65). The RSVP advises assessment using the PCL-R or the Screening Version of the PCL-R (PCL:SV; Hart et al., 1995). For the PCL-R a score of 30 or above denotes the presence of psychopathy, a score between 20 and 29 denotes possible psychopathy, and a score of 19 or lower indicates no psychopathy. Psychopathy was coded as:

2. The offender has psychopathic personality disorder. (PCL-R score > 29).
1. Possible or partial evidence that the offender has psychopathic personality disorder. (PCL-R score = 20–29).
0. The person does not have psychopathic personality disorder. (PCL-R score < 20)

Sexual deviance

Sexual deviance was also defined according to criteria for item 11 of the RSVP (Hart et al., 2003, pp. 62-63). The RSVP defines sexual deviance as “sexual interest, preference, arousal, or behaviour that involves a focus on inappropriate persons or objects (i.e. those that fall outside the realm of what is considered legal or conventional in consenting adult sexual relationships)”. The RSVP recommends that evidence be drawn from clinical interview, self report questionnaire, past behaviour, collateral information, or from phallometric assessment. A diagnosis of paraphilia according to DSM-IV (American Psychiatric Association, 2000) or ICD-10 (World Health Organisation, 2004) criteria is considered sufficient but not necessary
to classify sexual deviance. Information from the Sexual Sadism Scale and the Screening Scale for Paedophilic Interest was used to code this item. Sexual deviance was coded as:

2. The offender has serious sexual deviance.
1. Possible or partial evidence that the offender has serious sexual deviance.
0. The offender has no serious sexual deviance.

**Denial**

Denial was defined according to the criteria for item 6 of the RSVP (Hart et al., 2003, pp. 52-53). The RSVP defines “extreme minimization or denial of sexual violence” as the offender either; denying “having perpetrated sexual violence, [denying] personal responsibility for past sexual violence. . . or [denying] serious consequences of past sexual violence”. The RSVP advises the assessor to compare the offender’s self reported history of sexual violence with collateral information such as police reports or other records. Denial was coded as:

2. The offender engages in extreme minimisation or denial of sexual violence
1. There is partial evidence that the offender engages in extreme minimisation or denial of sexual violence.
0. The offender does not engage in extreme minimisation or denial of sexual violence

**Sexual preoccupation**

Sexual preoccupation is not an item within the RSVP but is assessed routinely by the SOLS. Sexual preoccupation was defined according to the Structured Assessment of Risk and
Need – Sexual Offending (SARN-SO; Mann et al., unpublished) criteria. It is defined as “an intense interest in sex that tends to dominate psychological functioning. Sex tends to be engaged in for its own sake, or as a way of defining the self, or as a way of self-medicating negative mood, rather than as an expression of a loving relationship”. The SARN specifies a number of behavioural indicators that can be used to assess this item. These include; total impersonal sexual outlets exceeding 6 per week for over six months, this includes, masturbatory activity, pornography use, repeated infidelity, or engaging in sex with multiple partners (Further detail on the specific behavioural indicators of sexual preoccupation is included in appendix 7). Sexual preoccupation was coded in a similar way to RSVP items.

2. Definite evidence that the offender is preoccupied with sex.

1. Possible or partial evidence that the offender is preoccupied with sex.

0. No evidence that the offender is preoccupied with sex.

Problems with intimate relationships

This independent variable was defined according to RSVP criteria for item 16; “Problems with Intimate Relationships” (Hart et al., 2003, pp. 72-73). Intimate relationships are defined as “romantic relationships established between the person and age-appropriate partners that are sexual in nature and involve an expectation of joint residence, monogamy or long term commitment”. Serious problems are defined as failing to establish or maintain such relationships and are reflected in “long-term singlehood, multiple relationship breakdowns, or serious relationship conflicts”. This independent variable was coded as:

2. The offender has serious problems with intimate relationships.
1. Possible or partial evidence that the offender has serious problems with intimate relationships.

0. The offender does not have problems with intimate relationships.

**Data Analysis**

The primary aim of the study was to explore the predictors of risk judgements made by the SOLS (defined as MAPPA or RMA risk level) and to ascertain whether or not they were predictors of recidivism that were empirically supported by the literature. The ordered logistic regression statistical test was considered to be the most appropriate statistical technique for this analysis since the dependent variables were ordinal. Independent variables were selected based upon a systematic review of the literature (Chapter 1 and 2) and were entered into each regression model. The number of independent variables entered ranged from one to five. Sample size was therefore considered with respect to statistical power for regression analysis.

**Power Analysis**

It was not possible to determine a suitable effect size based upon previous research. No similar research had been conducted. Therefore, the number of participants required to achieve a medium effect size of .80 (Cohen, 1992) was considered.

There is no single agreed upon method to determine the number of participants required of a regression analysis. Cohen (1992) suggested that to reveal a medium sized effect, (at .05 significance level) with five predictor variables, a sample size of 91 participants is required (Cohen, 1992, p. 158). Harris (1985) argued that for analyses involving five or fewer predictors, sample size should exceed the number of predictors by at least fifty. In this instance a sample size of 55 would therefore be required. Green (1991) proposed that $N > 50$
+ 8m (where m = number of predictor variables). In the present study a sample size of 90 would be required.

It was decided that a minimum sample size of 91 would be aimed for as this figure met the requirements of all of the methods described. Preliminary analysis of the data suggested that this sample size would be achievable.

**Ethical Considerations**

Ethical advice was sought from a representative of the South East Scotland Research Ethics Service. The study was not considered to require full NHS ethical approval (appendix 8). However, due diligence was undertaken to ensure that the study complied with standard ethical practice. Indentifying information was removed, so that participants’ anonymity was maintained, and NHS Caldicott advice on the secure storage and transfer of patient information was sought and adhered to (appendix 9). Ethical approval was granted by the University of Edinburgh, School of Health in Social Sciences, following submission of the study proposal (appendix 10).
CHAPTER IV

RESULTS
Overview of results

The data were analysed using the Statistical Package for the Social Sciences (SPSS) Version 19 for Windows. The analysis is presented in three sections. First, descriptive statistics are presented in order to describe the characteristics of the offenders. Second, preliminary and primary analyses are described. These analyses aimed to address the main hypotheses of the thesis. Third, each hypothesis is addressed and either supported or rejected.

Characteristics of the sample

The characteristics of the sample are presented in Tables 4.1 - 4.5. The numbers available for individual analyses varied because of missing data. Sample size ranged from 96 to 108. Sample sizes for individual calculations are presented in the respective tables. All of the offenders were male. The mean age of the sample was 37.45 and the mean number of previous convictions was 9.74. The mean PCL-R score was 15.94, substantially below the suggested cut-off score of 30. Thirteen individuals were diagnosed as psychopathic with a further 23 offenders partially meeting criteria (PCL-R scores between 20 and 29). This corresponds to a combined proportion of 32 per cent of the sample at least partially meeting criteria for psychopathy.

<table>
<thead>
<tr>
<th>TABLE 4.1: DESCRIPTIVE STATISTICS</th>
<th>Mean</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>37.45</td>
<td>17 - 73</td>
<td>12.51</td>
</tr>
<tr>
<td>Number of previous sexual convictions</td>
<td>2.82</td>
<td>0 - 49</td>
<td>5.44</td>
</tr>
<tr>
<td>Number of previous violent convictions</td>
<td>1.50</td>
<td>0 - 23</td>
<td>3.25</td>
</tr>
<tr>
<td>Number of previous other convictions</td>
<td>5.27</td>
<td>0 - 49</td>
<td>9.85</td>
</tr>
<tr>
<td>Total number of previous convictions</td>
<td>9.74</td>
<td>0 - 64</td>
<td>13.43</td>
</tr>
<tr>
<td>PCL-R Score</td>
<td>15.94</td>
<td>1 - 35</td>
<td>9.76</td>
</tr>
</tbody>
</table>
Table 4.2 shows the respective risk levels of the offenders defined according to both Multi-Agency Public Protection Arrangements (MAPPA) and Risk Management Authority (RMA) guidance. There are differences in the guidance for each of these judgements. Approximately 40 – 43 per cent of the offenders were categorised as low risk according to both guidelines. With respect to MAPPA guidance, 29 per cent of the offenders were categorised as medium risk, 18 per cent categorised as high risk, and 13 per cent categorised as very high risk. According to RMA guidance 36 per cent of the offenders were categorised as medium risk and 22 per cent categorised as high risk.

<table>
<thead>
<tr>
<th>MAPPA Risk Level</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>40.7</td>
<td>44</td>
</tr>
<tr>
<td>Medium</td>
<td>28.7</td>
<td>31</td>
</tr>
<tr>
<td>High</td>
<td>17.6</td>
<td>19</td>
</tr>
<tr>
<td>Very High</td>
<td>13.0</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>108</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RMA Risk Level</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>43.0</td>
<td>46</td>
</tr>
<tr>
<td>Medium</td>
<td>35.5</td>
<td>38</td>
</tr>
<tr>
<td>High</td>
<td>21.5</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>107</td>
</tr>
</tbody>
</table>

Table 4.3 shows frequency of RSVP scores by item, across the sample. As previously indicated, 12 per cent of the sample met criteria for psychopathy. In addition, 33 per cent met criteria for sexual deviance, 30 per cent met criteria for sexual preoccupation, 34 per cent met criteria for denial and 82 per cent met criteria for problems with intimate relationships.
Table 4.3 shows the frequency of RSVP scores by item.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No Evidence</th>
<th>Partial Evidence</th>
<th>Clear Evidence</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychopathy</td>
<td>76 (67.9%)</td>
<td>23 (20.5%)</td>
<td>13 (11.6%)</td>
<td>112</td>
</tr>
<tr>
<td>Sexual Deviance</td>
<td>43 (38.7%)</td>
<td>31 (27.9%)</td>
<td>37 (33.3%)</td>
<td>111</td>
</tr>
<tr>
<td>Denial</td>
<td>49 (45%)</td>
<td>23 (21.1%)</td>
<td>37 (33.9%)</td>
<td>109</td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td>49 (45.8%)</td>
<td>26 (24.3%)</td>
<td>32 (29.9%)</td>
<td>109</td>
</tr>
<tr>
<td>Problems with Intimate</td>
<td>5 (5%)</td>
<td>13 (12.9%)</td>
<td>83 (82.2%)</td>
<td>101</td>
</tr>
</tbody>
</table>

Table 4.4 shows the referral routes of offenders. Criminal justice social workers (who carry out a similar role to probation officers in other jurisdictions) referred 40 per cent of the offenders. Lothian & Borders Police referred 26 per cent of the offenders, while other health professionals (19 per cent), courts (7 per cent) and the local community intervention service for sexual offenders (CISSO; 8 per cent) referred smaller numbers of offenders.

Table 4.4: OFFENDERS BY REFERRAL SOURCE

<table>
<thead>
<tr>
<th>Referral Agency</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice Social Work</td>
<td>40.6</td>
<td>43</td>
</tr>
<tr>
<td>Police</td>
<td>26.4</td>
<td>28</td>
</tr>
<tr>
<td>NHS</td>
<td>18.9</td>
<td>20</td>
</tr>
<tr>
<td>Court</td>
<td>6.6</td>
<td>7</td>
</tr>
<tr>
<td>CISSO ¹</td>
<td>7.5</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>106</td>
</tr>
</tbody>
</table>

Table 4.5 describes the offenders according to the characteristics of their victims (that is, victims of their index offence). Offenders were split approximately evenly between those with adult victims (42 per cent) and those with child victims (53 per cent). A small number offended against both adult and child victims (6 per cent).

¹ Community intervention service for sexual offenders.
A substantial majority of this sample committed their index offence against a female (70 per cent). A smaller number offended against a male (22 per cent) and a smaller number still against victims of both sexes (8 per cent).

In approximately half of all cases the offender did not know the victim (50 per cent). Fewer offenders were biologically related to their victim (16 per cent), were step-related (5 per cent), were a spouse or partner (3 per cent), were well known to the victim (10 per cent), or were an acquaintance (14 per cent). A very small number of victims were in contact with the offender in a professional context (for example, supervising the offender; 2 per cent).

**TABLE 4.5: OFFENDERS BY CHARACTERISTICS OF VICTIM**

<table>
<thead>
<tr>
<th>CHARACTERISTICS OF VICTIM</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Victim Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Victim</td>
<td>52.8</td>
<td>56</td>
</tr>
<tr>
<td>Adult Victim</td>
<td>41.5</td>
<td>44</td>
</tr>
<tr>
<td>Both Child and Adult Victims</td>
<td>5.7</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>106</td>
</tr>
<tr>
<td><strong>Victim Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male Victim</td>
<td>22.4</td>
<td>24</td>
</tr>
<tr>
<td>Female Victim</td>
<td>70.1</td>
<td>75</td>
</tr>
<tr>
<td>Both Male and Female Victims</td>
<td>7.5</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>107</td>
</tr>
<tr>
<td><strong>Victim Relationship to Offender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Relative</td>
<td>15.9</td>
<td>17</td>
</tr>
<tr>
<td>Step Relative</td>
<td>4.7</td>
<td>5</td>
</tr>
<tr>
<td>Spouse / Partner</td>
<td>2.8</td>
<td>3</td>
</tr>
<tr>
<td>Well Known Victim</td>
<td>10.3</td>
<td>11</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Professional / Staff</td>
<td>1.9</td>
<td>2</td>
</tr>
<tr>
<td>Stranger</td>
<td>50.4</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>107</td>
</tr>
</tbody>
</table>
Preliminary Analysis

Prior to conducting regression analyses to assess the contribution of relevant variables to risk judgement, preliminary univariate analyses were carried out. Chi-square tests were performed with RMA and MAPPA status included as covariates. Each of the five independent variables were entered separately into these analyses: psychopathy; sexual deviance; denial; sexual preoccupation; and problems with intimate relationships. In cases where expected frequencies in cells were below five, the results of Fisher’s Exact Tests are reported. Crosstabulations of variables are presented in appendix 11. Results are reported in Table 4.6 and suggest that there were significant associations between RMA risk score and psychopathy, $p < .001$; RMA risk score and denial, $p = .03$; and RMA risk score and sexual preoccupation, $\chi^2(4) = 14.07, p = .01$. There were also significant associations between MAPPA risk score and psychopathy, $p < .001$; as well as MAPPA risk score and denial, $p = .03$. There appeared to be no statistically significant associations between RMA risk score and sexual deviance, $\chi^2(4) = 6.61, p = .16$; or RMA score and problems with intimate relationships, $\chi^2(4) = 5.23, p = .33$. Similarly, there appeared to be no statistically significant relationships between MAPPA risk score and sexual deviance, $p = .38$; MAPPA risk score and sexual preoccupation, $p = .08$; or MAPPA risk score and problems with intimate relationships, $p = .33$.

Closer inspection of scores on the problems with intimate relationships item revealed a skewed distribution and these were recoded dichotomously. No problems or partial evidence of problems with intimate relationships were recoded as 0 and definite evidence of problems with intimate relationships was recoded as 1. Fisher’s exact tests were performed and again there were no significant associations between RMA score and problems with intimate relationships, $p = .33$; or MAPPA score and problems with intimate relationships, $p = .45$.  

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Primary Analysis

The primary analysis was conducted in order to evaluate the overall contribution of relevant variables (identified through systematic review in Chapter 1) to the risk judgements made by assessors. As indicated previously, the ordered logistic regression analysis was considered to be the most appropriate statistical test to use in this analysis. Two ordered logistic regression tests were conducted in order to explore factors associated with the assessors risk judgements, defined as:

- Risk Management Authority (RMA) risk level (Coded 1-3)
- Multi-Agency Public Protection Arrangements (MAPPA) risk level (Coded 1-4)
Ordered logistic regression was considered to be appropriate as both dependent variables were ordered and polychotomous. This is a common method for modelling relationships between ordinal dependent variables and multiple independent variables. It enables cumulative probabilities, odds, and odds ratios for values of the dependent variable, lower than or equal to a particular value, to be compared against those for higher values of the dependent variable (Orme & Combs-Orme, 2009).

Separate ordered logistic regression models were run for each of the two dependent variables. Independent variables were included based on theoretical reasoning from the systematic review described in Chapter 1. The individual independent variables were entered into the analysis separately. A hierarchical entry method was used.

Assumptions

Orme and Combs-Orme (2009) noted that four assumptions are necessary for testing hypotheses using ordered logistic regression. First, relevant variables should be included in the analysis. Second, errors for each case should be independent from errors of all other cases. Third, there should be no perfect multicolinearity. Fourth, the effect of the independent variable should be the same for all values of the dependent variable, known as the “parallel lines assumption”. In the present study the independent variables were included in the analysis based upon a systematic review of the literature (Chapter 1) and the offenders from whom the dependent variables were measured were sampled independently. Thus, assumptions one and two were met. Assumption three was tested using the variance inflation factor computed by SPSS (v.19). Tolerance levels of 0.1 or less were considered to be problematic (Field, 2009). Assumption three was not violated in any of the analyses. Assumption four was also tested using output computed by SPPS Version 19. Orme and Combs-Orme (2009) explained that SPSS tests this assumption by comparing the $–2 \text{Log Likelihood}$ for the constrained model (that assumes the slopes are equal) to the $–2 \text{Log Likelihood}$ for the unconstrained model.
Likelihood for the unconstrained model (which allows the slopes to vary). A chi-squared statistic is presented and rejection of the null hypothesis would indicate that the parallel lines assumption has been violated. This assumption was violated in a minority of the analyses and alternative statistical analyses were considered and conducted as discussed below.

**Results of Ordinal Logistic Regression**

**RMA Risk Score**

Preliminary univariate analyses (chi-square and Fisher’s exact tests) had suggested that psychopathy, denial and sexual preoccupation were statistically significantly associated with RMA risk score. These preliminary results were explored further using ordered logistic regression and are reported in table 4.7.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Estimate</th>
<th>Wald</th>
<th>Sig.</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychopathy</td>
<td>107</td>
<td>1.805</td>
<td>29.10</td>
<td>&lt; .001</td>
<td>6.08</td>
<td>3.2 – 11.7</td>
</tr>
<tr>
<td>Sexual Deviance*</td>
<td>106</td>
<td>0.219</td>
<td>0.21</td>
<td>.31</td>
<td>1.25</td>
<td>0.8 – 1.9</td>
</tr>
<tr>
<td>Denial</td>
<td>104</td>
<td>0.648</td>
<td>9.26</td>
<td>.002</td>
<td>1.91</td>
<td>1.3 – 2.9</td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td>102</td>
<td>0.697</td>
<td>9.33</td>
<td>.002</td>
<td>2.01</td>
<td>1.3 – 3.1</td>
</tr>
<tr>
<td>Intimate Relationships*</td>
<td>96</td>
<td>0.195</td>
<td>0.30</td>
<td>.58</td>
<td>1.21</td>
<td>0.6 – 2.4</td>
</tr>
</tbody>
</table>

*Note: * = Parallel lines assumption violated.

When the independent variable psychopathy (PCL-R Score) was entered into the regression model a significant association with RMA Risk Judgement Score was found. The slope was positive. This indicates that higher scores on psychopathy are associated with higher RMA risk judgement scores, as expected. The odds ratio was 6.08, 95% CI (3.2, 11.7)
which indicates that for a standard deviation increase in psychopathy score the odds of being rated as high risk (compared to medium or low risk) increases by a factor of 6.

When the independent variable denial was entered into the regression model a significant association with RMA risk judgement score was found. The slope was positive indicating that higher scores on denial are associated with higher RMA risk judgement scores. The odds ratio was 1.9, 95% CI (1.3, 2.9) which indicates that for a standard deviation increase in denial score the odds of being rated as high risk (compared to medium or low risk) increases by a factor of almost 2.

When the independent variable sexual preoccupation was entered into the regression model a significant association with RMA risk judgement was found. The slope was again positive, indicating that higher scores on sexual preoccupation are associated with higher RMA risk judgement scores. The odds ratio was 2.01, 95% CI (1.3, 3.1) which indicates that for a standard deviation increase in sexual preoccupation score the odds of being rated as high risk (compared to medium or low risk) increases by a factor of 2.

When the independent variables sexual deviance and problems with intimate relationships were entered into the regression no statistically significant associations were found. The parallel lines assumption was violated in both analyses.

MAPPA risk score was also explored as an outcome variable in table 4.8.
TABLE 4.8: MAPPA SCORE ORDERED LOGISTIC REGRESSION MODELS SUMMARY TABLE

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Estimate</th>
<th>Wald</th>
<th>Sig.</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychopathy</td>
<td>108</td>
<td>1.528</td>
<td>27.57</td>
<td>&lt; .001</td>
<td>4.61</td>
<td>2.6 – 8.1</td>
</tr>
<tr>
<td>Sexual Deviance*</td>
<td>107</td>
<td>0.162</td>
<td>0.59</td>
<td>.44</td>
<td>1.18</td>
<td>0.7 – 1.8</td>
</tr>
<tr>
<td>Denial</td>
<td>105</td>
<td>0.747</td>
<td>12.27</td>
<td>&lt; .001</td>
<td>2.11</td>
<td>1.3 – 3.2</td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td>103</td>
<td>0.661</td>
<td>9.05</td>
<td>.003</td>
<td>1.93</td>
<td>1.3 – 3.0</td>
</tr>
<tr>
<td>Intimate Relationships*</td>
<td>97</td>
<td>-0.21</td>
<td>.004</td>
<td>.95</td>
<td>1.02</td>
<td>0.4 – 2.0</td>
</tr>
</tbody>
</table>

Note: * = Parallel lines assumption violated.

MAPPA Risk Score

When the independent variable psychopathy (PCL-R Score) was entered into the regression model a significant association with MAPPA risk judgement score was found. The slope was positive. This indicates that higher scores on psychopathy are associated with higher MAPPA risk judgement scores, as expected. The odds ratio was 4.61, 95% CI (2.6, 8.1) which indicates that for a standard deviation increase in psychopathy score the odds of being rated as very high risk (compared to high, medium or low risk) increases by a factor of 4.61.

When the independent variable denial was entered into the regression model a significant association with MAPPA risk judgement score was found. The slope was positive indicating that higher scores on denial are associated with higher MAPPA risk judgement scores. The odds ratio was 2.11, 95% CI (1.3, 3.2) which indicates that for a standard deviation increase in denial score the odds of being rated as very high risk (compared to high, medium or low risk) increases by a factor of just over 2.

When the independent variable sexual preoccupation was entered into the regression model a significant association with MAPPA risk judgement was found. The slope was again
positive, indicating that higher scores on sexual preoccupation are associated with higher MAPPA risk judgement scores. The odds ratio was 1.93, 95% CI (1.3, 3.0) which indicates that for a standard deviation increase in sexual preoccupation score the odds of being rated as very high risk (compared to high, medium or low risk) increases by a factor of just under 2.

When the independent variables sexual deviance and problems with intimate relationships were entered into the regression no statistically significant associations were found. The parallel lines assumption was violated in both analyses.

Further ordered logistic regression analyses were conducted with all three statistically significant predictors of RMA and MAPPA included in the model. With an increase in the number of independent variables included in the model, a significant proportion of missing cells became apparent. In addition, a minority of the analyses had violated assumption four (the parallel lines assumption) making interpretation of these results difficult. In this instance Orme and Combs-Orme (2009) suggested the use of the multinomial logistic regression model, sacrificing the ordinal nature of the data and treating it as categorical. Multinomial logistic regression was attempted. However, again, a significant quantity of missing cells became evident, limiting interpretation of these analyses. Thus, linear regression analysis was conducted with both dependent variables (RMA and MAPPA risk judgement score) and a combined RMA and MAPPA score (ranging from two through to seven). The dependent variables were highly correlated, $r_S(105) = .86, p < .001$, but were not identical. The author considered that a combined scale would provide a more fine-grained analysis since it was acknowledged that linear regression of the dependent variables was not the first choice of statistical analysis. The results are presented below.
Results of Linear Regression Analysis

RMA Risk Score

The results of linear regression analyses with RMA risk score as dependent variable are presented below in table 4.9. Each of the five predictor variables were entered into separate models. Similar to the results of the ordered logistic regression analyses, psychopathy, denial and sexual preoccupation were statistically significant predictors of RMA risk score, while sexual deviance and problems with intimate relationships were not. The three statistically significant predictors were entered into the same model and they predicted RMA risk score independently of one another. This combined model accounted for 40 per cent of the variance.
### TABLE 4.9: RMA SCORE LINEAR REGRESSION MODELS SUMMARY TABLE

<table>
<thead>
<tr>
<th>Model</th>
<th>N</th>
<th>ΔR²</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td>107</td>
<td>0.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.53</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
<td></td>
<td>0.61</td>
<td>0.09</td>
<td>0.54*</td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td>106</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.72</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Sexual Deviance</td>
<td></td>
<td></td>
<td>0.08</td>
<td>0.09</td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td>104</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.57</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td>Denial</td>
<td></td>
<td></td>
<td>0.26</td>
<td>0.08</td>
<td>0.30**</td>
</tr>
<tr>
<td><strong>Model 4</strong></td>
<td>102</td>
<td>0.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.56</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td></td>
<td></td>
<td>0.28</td>
<td>0.09</td>
<td>0.31**</td>
</tr>
<tr>
<td><strong>Model 5</strong></td>
<td>96</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.62</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Intimate relationships</td>
<td></td>
<td></td>
<td>0.10</td>
<td>0.15</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>Model 6</strong></td>
<td>104</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.40</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
<td></td>
<td>0.58</td>
<td>0.09</td>
<td>0.52**</td>
</tr>
<tr>
<td>Denial</td>
<td></td>
<td></td>
<td>0.17</td>
<td>0.72</td>
<td>0.20*</td>
</tr>
<tr>
<td><strong>Model 7</strong></td>
<td>102</td>
<td>0.39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>1.21</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
<td></td>
<td>0.54</td>
<td>0.09</td>
<td>0.48***</td>
</tr>
<tr>
<td>Denial</td>
<td></td>
<td></td>
<td>0.19</td>
<td>0.07</td>
<td>0.21*</td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td></td>
<td></td>
<td>0.24</td>
<td>0.07</td>
<td>0.26**</td>
</tr>
</tbody>
</table>

*Note: *p < 0.5, **p < 0.01, ***p < 0.001*

**MAPPA Risk Score**

The results of linear regression analyses with MAPPA risk score as dependent variable are presented below in table 4.10. Again, each of the five predictor variables were entered into separate models. Psychopathy, denial and sexual preoccupation were statistically significant predictors of MAPPA risk score, while sexual deviance and problems with
intimate relationships were not. The three statistically significant predictors were entered into
the same model and they predicted MAPPA risk score independently of one another. Again,
this combined model accounted for approximately 40 per cent of the variance.

TABLE 4.10 – MAPPA SCORE LINEAR REGRESSION MODELS SUMMARY TABLE

<table>
<thead>
<tr>
<th>Model</th>
<th>N</th>
<th>ΔR²</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>108</td>
<td>0.26</td>
<td>1.69</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Psychopathy</td>
<td>0.79</td>
<td>0.13</td>
</tr>
<tr>
<td>Model 2</td>
<td>107</td>
<td>N/A</td>
<td>1.96</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual Deviance</td>
<td>0.08</td>
<td>0.12</td>
</tr>
<tr>
<td>Model 3</td>
<td>105</td>
<td>0.10</td>
<td>1.72</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Denial</td>
<td>0.39</td>
<td>0.11</td>
</tr>
<tr>
<td>Model 4</td>
<td>103</td>
<td>0.08</td>
<td>1.71</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual Preoccupation</td>
<td>0.38</td>
<td>0.12</td>
</tr>
<tr>
<td>Model 5</td>
<td>97</td>
<td>N/A</td>
<td>2.06</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intimate relationships</td>
<td>-0.01</td>
<td>0.21</td>
</tr>
<tr>
<td>Model 6</td>
<td>105</td>
<td>0.31</td>
<td>1.50</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Psychopathy</td>
<td>0.72</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Denial</td>
<td>0.28</td>
<td>0.10</td>
</tr>
<tr>
<td>Model 7</td>
<td>103</td>
<td>0.38</td>
<td>1.24</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Psychopathy</td>
<td>0.69</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Denial</td>
<td>0.28</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual Preoccupation</td>
<td>0.33</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Note: *p < 0.5, **p < 0.01, ***p < 0.001
Combined Risk Score

The results of linear regression analyses with the combined risk score as dependent variable are presented below in table 4.11. Again, each of the five predictor variables were entered into separate models. Again, psychopathy, denial and sexual preoccupation were statistically significant predictors of combined risk score, while sexual deviance and problems with intimate relationships were not. The three statistically significant predictors were entered into the same model and they predicted combined risk score independently of one another. Again, this combined model accounted for approximately 40 per cent of the variance.
<table>
<thead>
<tr>
<th>Model</th>
<th>N</th>
<th>ΔR²</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>107</td>
<td>0.29</td>
<td>3.22</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>3.22</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
<td></td>
<td>1.40</td>
<td>0.21</td>
<td>0.54***</td>
</tr>
<tr>
<td>Model 2</td>
<td>106</td>
<td>N/A</td>
<td>3.69</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>3.69</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Sexual Deviance</td>
<td></td>
<td></td>
<td>0.14</td>
<td>0.20</td>
<td>0.07</td>
</tr>
<tr>
<td>Model 3</td>
<td>104</td>
<td>0.10</td>
<td>3.28</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>3.28</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Denial</td>
<td></td>
<td></td>
<td>0.65</td>
<td>0.19</td>
<td>0.33**</td>
</tr>
<tr>
<td>Model 4</td>
<td>102</td>
<td>0.09</td>
<td>3.28</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>3.28</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td></td>
<td></td>
<td>0.65</td>
<td>0.20</td>
<td>0.31**</td>
</tr>
<tr>
<td>Model 5</td>
<td>96</td>
<td>N/A</td>
<td>3.67</td>
<td>0.64</td>
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</tr>
<tr>
<td>Constant</td>
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<td></td>
<td>3.67</td>
<td>0.64</td>
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<tr>
<td>Intimate relationships</td>
<td></td>
<td></td>
<td>0.08</td>
<td>0.34</td>
<td>0.02</td>
</tr>
<tr>
<td>Model 6</td>
<td>104</td>
<td>0.34</td>
<td>2.90</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>2.90</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
<td></td>
<td>1.30</td>
<td>0.21</td>
<td>0.51***</td>
</tr>
<tr>
<td>Denial</td>
<td></td>
<td></td>
<td>0.45</td>
<td>0.16</td>
<td>0.23**</td>
</tr>
<tr>
<td>Model 7</td>
<td>102</td>
<td>0.41</td>
<td>2.45</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>2.45</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Psychopathy</td>
<td></td>
<td></td>
<td>1.22</td>
<td>0.21</td>
<td>4.78***</td>
</tr>
<tr>
<td>Denial</td>
<td></td>
<td></td>
<td>0.46</td>
<td>0.16</td>
<td>0.23**</td>
</tr>
<tr>
<td>Sexual Preoccupation</td>
<td></td>
<td></td>
<td>0.57</td>
<td>0.16</td>
<td>0.27**</td>
</tr>
</tbody>
</table>

Note: *p < 0.5, **p < 0.01, ***p < 0.001
The Hypotheses Tested

Results from the chi square tests, Fisher’s exact tests, ordered logistic regression analyses and linear regression analyses were used to accept or reject the following hypotheses:

1. **That psychopathy will be a statistically significant predictor of sexual violence risk score.**

   Fisher’s exact tests examining associations between psychopathy and RMA risk score and psychopathy and MAPPA risk score indicated that there were significant relationships. Ordered logistic regression analyses including psychopathy as an independent variable revealed that it was a statistically significant predictor of both RMA risk score and MAPPA risk score. Further analyses using linear regression corroborated these findings and suggested that a model including psychopathy accounted for approximately 40 per cent of the variance with respect to prediction of risk judgement. Hypothesis one was supported. A higher score on the psychopathy item of the RSVP is associated with a higher sexual violence risk score in this sample

2. **That sexual deviance will be a statistically significant predictor of sexual violence risk score.**

   A chi square test and a Fisher’s exact test examining associations between sexual deviance and RMA risk Score, and sexual deviance and MAPPA risk score, indicated that there were no significant relationships. Ordered logistic regression analyses including sexual deviance as an independent variable revealed that it did not predict RMA risk score or MAPPA risk score. Further analyses using linear regression corroborated these findings. Therefore hypothesis two was rejected.
3. That denial will not be a statistically significant predictor of sexual violence risk score.

Fisher’s exact tests examining associations between denial and RMA risk score and denial and MAPPA risk score indicated that there were significant relationships. Ordered logistic regression analyses including denial as an independent variable revealed it was a statistically significant predictor of both RMA risk score and MAPPA risk score. Further analyses using linear regression corroborated these findings and suggested that a model including denial accounted for approximately 40 per cent of the variance with respect to prediction of risk judgement. Hypothesis three was rejected. A higher score on the denial item of the RSVP is associated with a higher sexual violence risk score in this sample.

4. That Sexual Preoccupation will be a statistically significant predictor of sexual violence risk score.

A chi square test and a Fisher’s exact test examining associations between sexual preoccupation and RMA risk score and sexual preoccupation and MAPPA risk score suggested that there may be significant relationships. There was a statistically significant association between sexual preoccupation and RMA risk score but not between sexual preoccupation and MAPPA risk score. Ordered logistic regression analyses including sexual preoccupation as an independent variable revealed that it was a statistically significant predictor of both RMA risk score and MAPPA risk score. Further analyses using linear regression corroborated these findings and suggested that a model including sexual preoccupation accounted for approximately 40 per cent of the variance with respect to prediction of risk judgement. Hypothesis four was supported. A higher score on the sexual preoccupation item of the RSVP is associated with a higher sexual violence risk score in this sample.
5. **That problems with intimate relationships will be a statistically significant predictor of sexual violence risk judgement.**

Fisher’s exact tests examining associations between problems with intimate relationships and RMA Risk Score and problems with intimate relationships and MAPPA risk score indicated that there were no significant relationships. Ordered logistic regression analyses including problems with intimate relationships as an independent variable revealed that it did not predict RMA risk score or MAPPA risk score. Further analyses using linear regression corroborated these findings. Therefore hypothesis five was rejected.
CHAPTER V
DISCUSSION
Overview of Discussion

The present study had two main aims. First, to explore the process through which SPJ risk judgements were made. Second, to examine whether key predictors of sexual recidivism were given the weighting that the literature suggested they merited, in the clinical practice of the SOLS.

In accordance with these aims, five independent variables were selected based upon theoretical reasoning (Chapter 1 and 2). Statistical analyses were conducted to assess whether or not they predicted risk judgement score. The independent variables selected were: psychopathy (PCL-R score); sexual deviance; denial; sexual preoccupation; and problems with intimate relationships. The dependent variables were two different risk judgement scores as defined by the Risk Management Authority (RMA), and the Multi-Agency Public Protection Arrangements (MAPPA) framework. The results of 96 offenders were analysed using univariate and multivariate statistical techniques, namely: chi-square tests, Fisher’s exact tests, ordered logistic regression and linear regression. Psychopathy, denial and sexual preoccupation were statistically significantly associated with risk judgement scores while sexual deviance and problems with intimate relationships were not. The findings of the study are compared against those of previous studies. The strengths and limitations are considered before the clinical and research implications of the findings are discussed.

Exploring the results

Descriptive Results

Descriptive statistics were presented in order to accurately describe the characteristics of the sample. Although the SOLS was established with high risk sexual offenders in mind, in this sample, approximately 40 per cent of the offenders were categorised as low risk on both
outcome measures, while between 20 and 30 per cent were categorised as high or very high risk. It may be that those offenders who were deemed to be high or very high risk were not at liberty in the community and instead were detained in prison or secure hospital facilities. Alternatively, these findings may reflect the characteristics of the outcome variables. For example, MAPPA risk level refers to the imminence of risk as well as its seriousness. It may have been the case that some offenders had the potential to cause serious harm. However, the risk may not necessarily have been imminent because appropriate risk management strategies were in place.

Despite the relatively high proportion of offenders evaluated as low risk there remained a substantial proportion of high and very high risk offenders who were referred to, and assessed by, the SOLS. This was also reflected in the PCL-R scores of the sample. The mean score for this sample was approximately 16, substantially below Hare’s suggested cut-off scores of 30 and 20 (Hare, 1991). However, Cooke and Michie have suggested that the prevalence of psychopathy is different in Scotland compared to North America (Cooke & Michie, 1999). For example, Hare (2003) found that 4 per cent of British male offenders demonstrated clear evidence of psychopathy using the North American diagnostic cut-offs. In the SOLS sample 12 per cent of the offenders demonstrated clear evidence of psychopathy using the same North American cut-offs. This remains well below the prevalence of psychopathy in North American samples (29% above a PCL-R score of 30; Cooke & Michie, 1999) but suggests that the SOLS may be assessing a particularly challenging population within the Scottish context.

Information about the index offences of individuals assessed by the SOLS suggested that there were roughly equal numbers of adult rapists versus child molesters. This was considered to be a strength of the study since many existing studies have evaluated one or
other of these groups, limiting their generalisability. Conversely, there is thought to be heterogeneity among sexual offenders and it is not clear if study of these broader groups is always helpful (Vess & Skelton, 2010).

It may also have been useful to examine numbers of contact versus non-contact offenders, especially since a new category of sexual offender, the internet offender, has emerged in recent years (Quayle & Taylor, 2003). Consultation with representatives of the SOLS indicated that there were small numbers of these individuals contained within the sample. Previous analysis of the SOLS population indicated that approximately 19 per cent of the sample had a history of internet offending (Russell & Darjee, in press). These individuals often had previous convictions for contact offences and were not internet-only offenders. Anecdotally, criminal justice professionals were often able to supervise internet-only offenders without difficulty and therefore did not request specialist risk assessment or risk management advice from the SOLS.

In summary, the sample appears to be representative of high risk sexual offenders being managed in the community in Scotland. Although samples were not compared statistically, the present sample appears to be broadly comparable with those of high risk sexual offenders elsewhere in the UK (e.g. Craissati & Beech, 2005, 2006).

**Psychopathy as a predictor of risk status**

It was hypothesised that psychopathy would be a statistically significant predictor of risk judgement score. This hypothesis was supported. As psychopathy, and antisociality more generally, have consistently been associated with both sexual recidivism and general recidivism, this finding was encouraging. It suggested that the clinical practice of risk
assessment of sexual violence at the SOLS is in agreement with the extant literature with respect to psychopathy.

Psychopathy was the independent variable most strongly associated with risk judgement score in the study. There are at least two possible reasons why that might be the case. Psychopathic individuals are rare in Scotland (especially when compared against rates in North America; Cooke & Michie, 1999), and it is possible that psychopathy is particularly salient due to its relative infrequency. It is plausible then that risk judgement could be influenced by the salience of psychopathy as a risk factor. In addition, psychopathy is assessed through use of the Psychopathy Checklist Revised (PCL-R) and is scored on a twenty-item scale which has well demonstrated reliability and validity (Hare & Neumann, 2008). Other risk factors are more difficult to measure and are not operationalised in the same way (for example, problems with intimate relationships). It is possible that psychopathy benefits from more accurate measurement and identification than other risk factors included in the RSVP.

**Sexual deviance as a predictor of risk status**

It was hypothesised that sexual deviance would be a statistically significant predictor of risk judgement status. An unexpected finding of the present study was that this hypothesis was rejected. since previous reviews have strongly supported the notion that sexual deviance is associated with recidivism, and sexual recidivism in particular.

Interpretation of this finding is difficult. One possible explanation for this discrepancy may relate to the way sexual deviance is defined and measured according to the RSVP criteria. The RSVP recommends several different methods of evaluating sexual deviance. If the individual has a pre-existing diagnosis of paedophilia or another paraphilia then this is
sufficient. Sexual deviance can also be assessed using other measures which the SOLS employs, such as the Screening Scale for Paedophilic Interests (SSPI; Seto et al., 2004) and the Marshall-Hucker Sexual Sadism Scale (SSS; Marshall & Hucker, 2006). Penile plethysmography (PPG; measurement of penile response to presentation of stimuli) can also be employed, although it has been argued that this is invasive (Gordon & Grubin, 2004) and it is not available in Scotland (Russell & Darjee, in press). In short, sexual deviance is a broad construct and it is difficult to define and measure (Akerman & Beech, 2012; Laws & O'Donohue, 2008). Stinson and Becker (2008) noted that PPG methods measure current sexual interest or arousal while other self-report or behavioural indicators measure past sexual interest or arousal. That is, they may measure different things. It is possible that this less precise definition of the item according to the RSVP criteria may lead to differences in how this item is scored, perhaps explaining the present findings.

An alternative explanation may be found through closer inspection of the variables. As previously indicated, the dependent variables, MAPPA risk score and RMA risk score, take into account imminence of risk (MAPPA), as well as the likelihood of the offender’s cooperation with risk management planning (RMA). It is possible that the offender may have shown evidence of sexual deviance but he may also have cooperated with risk management planning, reducing his risk score. For example, an offender may have been diagnosable with paedophilia (a persistent sexual interest in pre-pubescent children) but he may not have had access to children and may have been engaging in psychological and pharmacological treatment (for example, anti-libidinal medication). This could be reflected in a lower risk score on the MAPPA and RMA measures.

Statistical analysis may have been aided by consideration of specific sexual deviance diagnoses. It was not possible to investigate the specific categories of sexual deviance that
were endorsed. However, consultation with representatives of the SOLS indicated that the most common category of sexual deviance among the sample was paedophilia. It may be that there are differences between individuals diagnosed with paedophilia and those diagnosed with other types of sexual deviance that influenced the risk score given. For example, individuals diagnosed with sexual sadism (a type of sexual deviance characterised by the infliction of pain on others for the purpose of sexual gratification) are thought by some to pose a particularly high risk of recidivism (Marshall & Hucker, 2006). The SOLS has assessed a number of such sexual sadists (Russell & Darjee, in press). It is possible that individuals diagnosed with sexual sadism were awarded higher risk scores than those diagnosed with paedophilia. Further statistical analysis would be required to investigate these processes in more detail.

**Denial as a predictor of risk status**

It was hypothesised that denial would not be a statistically significant predictor of risk judgement status. A further unexpected finding was that this hypothesis was rejected since previous reviews had suggested that denial was not an empirically supported risk factor for recidivism.

The relationship between denial and recidivism is complex. In the previous systematic review it was found that higher levels of denial were associated with decreased sexual recidivism in high risk offenders (Harkins et al., 2010), while denial was associated with increased recidivism in low risk offenders (Nunes et al., 2007). Harkins et al. suggested that for high risk offenders, denial may be protective. It was posited that for low risk offenders, denial may act as a risk factor only when other risk factors are not present (Harkins et al., 2010). A further study found that a dichotomous denial classification failed to predict
recidivism in a sample of sexual offenders (Langton et al., 2008) suggesting that the way in which denial is measured is important.

Denial has become a controversial subject within the sexual offending literature. Maruna and Mann (2006) argued that denial and minimisation often occur after offending and that it is therefore difficult to argue that it can predict recidivism. More recently, Ware and Mann (2012) noted that “acceptance of responsibility” (which could be construed as the opposite of denial) is often a core component of sex offender treatment programmes. They concluded that there is an “over-emphasis on sex offenders taking passive responsibility in treatment” and suggested that this is based on a “common-sense” approach rather than on sound psychological science (Ware & Mann, 2012, p. 287). Passive responsibility in this context refers to the offender accepting that he has committed an offence while active responsibility refers to the offender actively changing his behaviour. Similarly, Blagden et al. (2011), in a qualitative study exploring the views of treatment providers with respect to denial, suggested that the emphasis on overcoming denial that pervades treatment provision may be based on western religious and moral notions of confession and repentance. Both Ware and Mann (2012), and Blagden et al. (2011), have indicated that seeking admission and overcoming denial are seductive goals that professionals may not be consciously aware of. It is possible that this may account for the association between denial and risk score in the present study. Indeed, Amenta (2006) found that denial has influenced the decisions of risk assessors in applied settings (cited in Langton et al., 2008) and Freeman et al. (2011) reported that approximately half of their sample of forensic psychologists indicated that the presence of denial would influence risk assessment. The remaining participants asserted that denial would not influence risk assessment (Freeman et al., 2011).
Alternatively, this finding may be accounted for by difficulties in defining and measuring the denial item of the RSVP. Langton et al. (2008) argued that there had been a reliance on categorical, all-or-nothing descriptions of denial. These authors developed a dimensional measure of minimisation that appeared to be more helpful in characterising the complex relationship between denial and offending. While the RSVP does not offer a dichotomous, or categorical definition of denial, a more fine-grained measure may have revealed different relationships.

**Sexual Preoccupation as a predictor of risk status**

The hypothesised relationship, that sexual preoccupation would be a statistically significant predictor of risk judgement status, was supported. This finding is consistent with the literature on recidivism among sexual offenders and suggests that the approach taken by the SOLS is evidence based with respect to sexual preoccupation. Interestingly, sexual preoccupation is not included as an item in the RSVP manual and instead the SOLS evaluate sexual preoccupation as an additional item (the RSVP manual allows for additional considerations to be added) according to the scoring criteria of the SARN (Mann et al., unpublished). Scrutiny of these criteria suggested that they were more precisely defined in operational terms than items from the RSVP (see appendix 7 for details). This may make scoring less subjective.

**Problems with intimate relationships as a predictor of risk status**

The hypothesis, that problems with intimate relationships would be a statistically significant predictor of risk status, was rejected. Further inspection of the data revealed that only five percent of the present sample demonstrated no evidence of problems with intimate relationships. The variable was re-coded dichotomously and re-analysed, but again no
significant associations were found. These findings suggest that problems with intimate relationships were overwhelmingly the norm among this sample. This might also be true of sex offenders more generally but could reflect referral patterns. Although this item relates to intimate (romantic) relationships it is likely that criminal justice professionals find it difficult to supervise and manage individuals who have problems with relationships generally. One possible explanation for the pattern observed is that individuals who have difficulties with relationships are then referred to the SOLS for specialist risk assessment and advice. Relationships between variables are difficult to discern in such circumstances and again a more dimensional measure of this item may have aided this process.

**Unexplained variance**

A further interesting finding that emerged from the present study concerns the variance explained by the regression model. The best explanatory model accounted for only 40 per cent of the variance in risk score. Psychopathy (PCL-R score) accounted for a substantial proportion of this variance, while denial and sexual preoccupation accounted for smaller proportions. While this is an interesting finding, it indicated that approximately 60 per cent of the variance in risk score is unexplained. There are at least two possible reasons for this finding and these are not mutually exclusive.

First, the study involved the analysis of five independent variables selected for inclusion based on theoretical reasoning. These variables were thought to be appropriate for inclusion as they were either strongly supported as risk factors for recidivism (psychopathy, sexual deviance, sexual preoccupation, problems with intimate relationships), or were contentious (denial). Therefore, it is possible that additional relevant independent variables were not included in the analysis. While it is important that relevant variables are included in a regression analysis, it is also essential that variables are included based upon sound
theoretical reasoning. It was the author’s view that it would not have been defensible to enter a large number of variables into the analysis. This approach would not have been hypothesis driven and could have been perceived as a statistical “fishing exercise”. The statistical power of the analysis would also have been compromised. The generally accepted rule of thumb for sample size in regression analyses is that there should be 10 to 15 participants per independent variable (Field, 2009). An analysis, containing all 22 items of the RSVP as independent variables, with a sample size of 96, would be very limited statistically.

Second, the finding begs the question of what accounts for the other sixty per cent of the variance in risk score? Is this captured in the remaining items of the RSVP or is something altogether different contributing to the process? These questions get to the very heart of SPJ risk assessment. They address the process through which assessors get from consideration of the 22 items of the RSVP to a psychological formulation, development of risk scenarios, summary risk judgements, and risk management plans. The risk formulation is a key component of this process. Indeed, the RMA have noted that risk formulation provides the link between risk assessment and risk management (Risk Management Authority, 2007). However, the process of risk formulation is not well described, despite recent attempts by Logan and Johnstone (2010), Hart and Logan (2011) and Hart et al. (2011) to elucidate it and to stimulate research. Recently, Hart et al. (2011) noted that the (risk) formulation process is generally “covert or implicit” (p. 120) suggesting that systematic evaluation of it is difficult.

The literature on psychological formulation in non-forensic settings is similarly attenuated. In a recent British Psychological Society (BPS) publication suggesting good practice guidelines on the use of psychological formulation, the authors noted that with respect to the “question of whether there is evidence to support the use of formulation as a specific intervention” the evidence is “lacking” (British Psychological Society, 2011, p. 23).
This is despite the fact that psychological formulation is considered to be a central component of clinical psychology practice. In a review of the area, Bieling and Kuyken (2003) examined the evidence for the reliability, clinical validity, and utility of formulation as well as the relationship between formulation and treatment outcome. It was concluded that the evidence for formulation was not convincing (Bieling & Kuyken, 2003). Future research, both in clinical psychology generally, and concerning SPJ risk assessment specifically, would do well to address these issues.

**Strengths and limitations of the study**

**Statistical power**

A power analysis was performed prior to study commencement in order to inform optimal sample size. Based on Cohen (1992) a sample of 91 participants was required to achieve a medium effect size at a significance level of .05. A sample size of 96 participants was used in the analysis, and thus, adequate power achieved. Despite statistical power being achieved there were some limitations with respect to the statistical analysis. The ordered logistic regression test was considered to be the most appropriate method of analysis. Unfortunately, one of the assumptions of this test, the parallel lines assumption, was violated on more than one occasion, making interpretation of the results difficult. As more independent variables were entered into the model, increasing numbers of missing cells also became apparent, again hampering interpretation. These challenges were circumvented through the use of alternative statistical techniques. Multi-nominal logistic regression was first attempted before linear regression was conducted. Linear regression analysis was conducted with three different outcome variables; RMA risk score; MAPPA risk score; and a combined score of both RMA and MAPPA risk levels. This last score ranged from two to seven, and was attempted so that a more fine-grained analysis could be achieved. The RMA
and MAPPA risk scores were highly correlated but were not identical, making this type of analysis possible. Although analysis was hampered by violation of the parallel lines assumption, the results of univariate and multivariate analyses could then be compared and contrasted as appropriate. Interpretation of these statistics suggested that there was convergence; psychopathy, denial and sexual preoccupation were significantly associated with risk score, while sexual deviance and problems with intimate relationships were not.

Importantly, the aim of this study was not to develop a statistical model that could be generalised to other populations. Field (2009) noted that in such circumstances violations of statistical assumptions can be acceptable. The nature of the sample (a subset of sexual offenders being managed in the community in Scotland) means that generalisability is questionable in any case.

**Generalisability**

A further limitation of the study concerns generalisability. As indicated above, the individuals assessed by the SOLS are unlikely to be representative of sexual offenders in general. The service was developed with high risk sex offenders in mind. Anecdotally, partner criminal justice agencies refer only a small proportion of their caseload to the SOLS for specialist risk assessment and management advice. Data on the problems with intimate relationships item of the RSVP as well as on psychopathy also indicated that these may be individuals who are not representative of sexual offenders in general. Previous analysis of the SOLS sample indicated that approximately 80 per cent of the offenders were diagnosable with a personality disorder (Russell & Darjee, in press). Although personality disorder is common among sexual offenders (Craissati *et al.*, 2008), the prevalence of personality disorder within the SOLS sample would appear to be particularly high.
In addition, generalisability must also take into account the parameters of the service and the assessment process. The RSVP risk assessments were conducted by a small number of assessors (\(N = 8\)) according to criteria that were informed by the RSVP manual. However, it would not be defensible to suggest that all assessors who arrive at a summary risk judgement are informed by psychopathy, denial and sexual preoccupation but not sexual deviance or problems with intimate relationships. Indeed, the summary risk judgement ratings used as dependent variables are not used outside of Scotland. Despite this limitation, the study demonstrated a method that can be used to uncover the process of risk assessment of sexual violence, particularly using the RSVP tool. This method could be refined and replicated in different populations so that there is a clearer understanding of the process and real-world clinical practice of risk assessment. In this respect, the present study significantly advances knowledge in the sexual violence field.

**Measurement of variables**

Following consideration of the results with respect to each independent variable questions arose as to the measurement of these variables. The variables psychopathy, sexual deviance, problems with intimate relationships and denial were all defined according to RSVP criteria. The variable, sexual preoccupation, was defined according to the criteria of the SARN (Mann et al., unpublished). The RSVP recommends the use of the Psychopathy Checklist-Revised (PCL-R) to assess psychopathy; however, the other variables are relatively loosely defined and are difficult to measure. The PCL-R itself has become the subject of fierce debate concerning its validity (Hare & Neumann, 2010; Skeem & Cooke, 2010a, 2010b), while Stinson and Becker (2008) have acknowledged that sexual deviance is difficult to measure and assess. Similarly, the measurement of denial has been an area of research activity, with some researchers suggesting that a dimensional measure of denial and...
minimisation is more helpful than a categorical classification (Langton et al., 2008). The problems with intimate relationships item of the RSVP appeared to lack sensitivity in the present study, while sexual preoccupation has also proved difficult to define. The SARN guidelines note that “a recurrent issue in defining sexual preoccupation is the question of how much activity is ‘too much’” (Mann et al., unpublished). What seems to emerge is that there is a great deal of disagreement about how these constructs are defined and measured. This may have influenced the results of the present study and consistency in terms of definition and measurement would be helpful.

**Recidivism data**

Research studies of sexual offenders commonly follow-up these individuals and assess rates of recidivism. These studies are concerned with questions pertaining to the prediction of recidivism. That is, do specific risk assessment tools predict recidivism accurately? Or, do individual risk factors predict recidivism accurately? While it was not the main aim of the present study to address such questions it might also have been useful to consider the recidivism rates of offenders assessed by the SOLS. The offenders studied were assessed over a period of approximately five years. For some of these individuals there would be sufficient time for a follow-up to be meaningful but for others this was not the case. Further, Hart & Logan (2011) have questioned the notion that risk assessment tools should be judged solely on predictive validity, especially as a meaningful risk assessment will inform risk management and would therefore influence recidivism rates. The author considered that there had been numerous recidivism studies addressing the predictive validity of risk assessment tools but few looking at the practice and process of risk assessment. For these reasons, recidivism rates were not considered, although this is an area that may be addressed by others in future studies.
Implications and suggested directions for research

Since some of the limitations of the present study have already been acknowledged, replications of this study, with amendments to the methodology, might prove useful in examining the process of SPJ risk assessment. It is difficult to generalise from this sample and so similar studies using varied populations, in different countries, would be useful. Larger samples might also be available, making statistical interpretation less complicated, although it may be difficult to access large quantities of completed RSVP assessments.

Leading figures in the development of SPJ risk assessment methods have acknowledged that future research should examine how risk judgements are made: the process of SPJ risk assessment (Hart & Boer, 2010). Hart and Boer suggested that qualitative research might facilitate this process and this approach would undoubtedly be of value. However, the author suggests that the process of risk formulation should also be deconstructed and be subject to research examining its reliability, clinical validity, predictive validity, and acceptability to offenders and other professionals. A first step might be qualitative: surveying risk assessors and asking them how they arrive at formulations and risk judgements, as well as evaluating the methods that they use to facilitate this process. Research might then look at the reliability of individual risk formulations. For example, do risk assessors develop similar risk formulations and arrive at similar risk judgements? Subsequent research could then investigate how risk formulation informs risk management planning and could explore the relationship between risk formulation and recidivism outcome. While it is acknowledged that risk assessment methods should not be judged solely on predictive validity, it is nevertheless one useful way of assessing efficacy. Finally, future research could investigate the perceptions of both offenders and other professionals with respect to risk assessment generally but particularly concerning risk formulation and the
development of risk management planning. The present study has indicated that this type of research is both valuable and feasible.

**Implications for clinical practice**

The study demonstrated that there remains some controversy about how to measure several of the independent variables in the study. There is disagreement concerning measurement of each of the independent variables and consistency of definition would be desirable so that these can be used effectively in practice. Revision of the RSVP tool might also be considered. For example, if, as the research indicates, denial is not associated with recidivism, then perhaps it should not be included in the tool at all.

**Conclusion**

This study aimed to explore the process of SPJ risk assessment with a sample of sexual offenders assessed by a specialist sex offender liaison service in south-east Scotland. The study also examined whether key predictors of sexual recidivism were given the weighting that the literature suggested they merited in the clinical practice of the SOLS. The study demonstrated that psychopathy, denial and sexual preoccupation were significantly associated with risk judgement score in this sample, while sexual deviance and problems with intimate relationships were not. Possible explanations are offered for the unexpected findings that denial was associated with risk score while sexual deviance and problems with intimate relationships were not. No similar studies have been published; a strength of this study.

The main limitation of this study is the difficulty in generalising the results due to the nature of the sample and because of limitations with respect to interpretation of statistics. Replications of the present study, with improvements, are suggested. Larger sample sizes, in varying contexts, are required, as well as more consistent definitions of variables.
The study makes a significant contribution to the body of research on risk assessment of sexual violence, and specifically the RSVP structured professional judgement method. Despite limitations regarding generalisability the study demonstrates that quantitative research examining the process of SPJ risk assessment is possible and illustrates a method which can be used to uncover the predictors of risk assessors’ judgements of risk. That this research is conducted in a Scottish context is an additional strength, since much of the literature has focused on North American populations. It is hoped that this study can stimulate further research investigating the process of risk assessment so that the ultimate goal of protecting the public is achieved through evidence based means.
CHAPTER VI
RATIONALE FOR ADDITIONAL STUDY
Rationale

Study 1 explored the practice of structured professional judgement (SPJ) risk assessment in an NHS sex offender liaison service. Directions for future research were suggested. These suggestions concentrated on further examination of the process of SPJ risk assessment. Focused study of risk formulation was also recommended. The following specific recommendations were made: (1) Qualitative analysis of risk formulations and methods used by risk assessors; (2) Reliability studies of risk formulations; (3) Research examining the links between risk assessment, formulation and management; (4) Predictive validity studies of risk formulations; and, (5) Studies examining the views of users of risk assessments and risk formulations.

It was not possible to pursue all of the suggestions made due to financial and temporal constraints. However, a study examining recommendations 3 and 5 was feasible. Study 2 sought to explore the clinical practice of SPJ risk assessment and risk management through qualitative analysis of the accounts of users of these assessments: referrers to the SOLS. The study considered whether risk management recommendations made using the RSVP changed the actual management of offenders. Referrers’ views on the utility of SPJ risk assessment methods were also elicited. Hart and Logan (2011) explained that a small body of research exists that has addressed the question of utility of risk assessment. For example, Khiroya et al. (2009) surveyed users of risk assessments tools in medium secure forensic mental health units in England. They reported that the SVR-20 (a forerunner of the RSVP) was rated highest for utility and suggested that this might be due to the transparency of SPJ risk assessment methods.
Presentation

Study 2 is presented as a journal article according to the author instructions of the *Journal of Sexual Aggression.*
CHAPTER VII

JOURNAL ARTICLE*

*Written according to the instructions for authors of the *Journal of Sexual Aggression*. See Appendix 1 for further details.
“Separating the Risk From the Personality”: Referrers’ Views of Structured Professional Judgement Risk Assessment of Sexual Offenders

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‘Separating the risk from the personality’: Referrers’ views of structured professional judgement risk assessment of sexual offenders

The Risk for Sexual Violence Protocol is a structured professional judgement (SPJ) tool that aids risk assessment of sexual violence. It is widely used internationally. The aim of this study was to explore the clinical practice of SPJ risk assessment and risk management through qualitative analysis of the accounts of users of these assessments. Questionnaires and semi-structured interviews were conducted with a sample of 31 criminal justice professionals in southeast Scotland. The participants’ accounts were explored using the framework method. Five themes emerged from this analysis: informing risk management; confirming what was known and giving weight; understanding personality; treatment; and the usefulness and limitations of risk assessment. The participants reported that the assessments were influential with respect to risk management. The study revealed some important implications for service development. The author suggests possible future use of the framework method in research investigating the risk assessment of sexual violence.

Keywords: sexual violence; qualitative; risk assessment; framework analysis; risk management; forensic

Introduction

Professionals engaged in the assessment, treatment and management of sexual offenders are asked to accurately evaluate the risk of recidivism that an offender poses, consider the circumstances that might make recidivism more likely, and recommend treatment or management strategies that mitigate or reduce the likelihood of recidivism (Hart, 2008). Two main approaches to dealing with these tasks have been developed, termed “discretionary” and “non-discretionary” by Hart and Logan (2011). In the discretionary approach, the risk assessor is afforded a degree of flexibility and can use his or her professional judgement in order to arrive at decisions about risk. In the non-discretionary approach the converse is true. Decisions about risk are made based upon
statistical or algorithmic procedures that are specified _a priori_. The non-discretionary approach has also been termed “actuarial” (Hart & Logan, 2011).

There is much disagreement in the literature about which approach has the best evidence base. On one side, exponents of the discretionary approach argue for the use of “structured professional judgement” (SPJ) methods, such as the Risk for Sexual Violence Protocol (RSVP; Hart & Boer, 2010). On the other hand, there are leading figures who contend that non-discretionary, actuarial instruments, such as the Static-99, have superior predictive validity (Hanson & Morton-Bourgon, 2009). Recently, there has been debate about the appropriateness of using group data to predict the behaviour of an individual offender, a notion which is fundamental to the actuarial, non-discretionary method. Some authors have argued that this is appropriate (Harris, Rice, & Quinsey, 2008) while others have strongly disagreed (Cooke & Michie, 2010; Hart, Michie, & Cooke, 2007).

Hart et al. (2007) have argued that actuarial tools are based upon data from _groups_ of recidivistic or non-recidivistic offenders. They suggest that when these _group_ data are used to make predictions about _individuals_, statistical error is committed. It is argued that it is fallacious to argue that because an individual shares characteristics with others who “high risk” that he will necessarily reoffend more often than an individual in the “low risk” group. Hart et al. examined the margins of error for risk estimates made using actuarial methods and reported that these margins of error were so high that the tests were “virtually meaningless” (p. 63). Harris et al. (2008) responded to this analysis by suggesting that Hart and colleagues had themselves misapplied statistical techniques. They suggested that actuarial tools are “distillations” of empirical evidence and that they are superior to other risk assessment instruments. This complicated
statistical debate continues, with both research groups maintaining relatively entrenched opposing positions.

In Scotland, the body responsible for best practice in risk assessment and risk management (Risk Management Authority; RMA) recommends the use of SPJ methods. For sexual offenders the Risk for Sexual Violence Protocol (RSVP) is recommended (Risk Management Authority, 2006).

The Risk for Sexual Violence Protocol (Hart et al., 2003)

The RSVP is a structured professional judgement tool. It was developed following systematic review of the sexual recidivism literature. It consists of 22 items associated with recidivism based upon that literature (see appendix 6 for full list of items). Items are coded as: no evidence; partial evidence; or definite evidence. These items are not summed to provide a risk score but instead are used to anchor the assessor’s judgement. They are scored through careful examination of case-file information and detailed clinical interview. Following assessment of these items a risk formulation of the offender is developed. Future risk scenarios are then detailed and summary risk judgements presented. Crucially, detailed risk management recommendations are provided so that the offender can be managed in a way that reduces or mitigates the risk of recidivism.

Predictive validity and reliability of the RSVP

There is a wealth of research exploring the validity and reliability of SPJ tools, including the RSVP. The predictive validity of a tool is considered to be a useful method of assessing its efficacy. Structured professional judgement tools have been reported to perform better than unstructured methods but less well than actuarial tools.
using this criterion (Hanson & Morton-Bourgon, 2009). However, it has been argued by some that risk assessment tools are required to do more than just predict recidivism. They should also inform treatment and risk management (Hart & Logan, 2011). Further, because the emphasis of SPJ tools is on the development of risk management strategies that reduce risk, the risk level that an offender poses may not always be reflected in recidivism data. Appropriate risk management should reduce recidivism rates.

With respect to reliability, a number of studies have evaluated the inter-rater reliability of the SVR-20 (the precursor of the RSVP) and the RSVP itself. Hart and Boer (2010) provided an overview of this literature in a review of the area. They pointed to three unpublished studies that examined the inter-rater reliability of the RSVP (Hart, 2003; Watt, Hart, Wilson, Guy, & Douglas, 2006; Watt & Jackson, 2008). These three studies were conducted in Canada and studied experienced risk assessors. Inter-rater reliability was found to be “good” to “excellent” in all three. (Hart & Boer, 2010). More recently, Sutherland et al. (2012) investigated the inter-rater reliability of the RSVP with a sample of 28 forensic mental health professionals in Scotland. The participants were asked to use the RSVP in order to assess six case vignettes. Sutherland et al. (2012) found that inter-rater reliability was “fair” to “good” and that agreement was highest when the participants were highly trained in forensic risk assessment.

The validity and reliability of the RSVP has thus been demonstrated in research contexts. However, less is known about the real-world clinical practice of sexual violence risk assessment. Green, Carroll and Brett (2010) surveyed risk assessment use in Australian forensic community mental health services and found that SPJ tools were used widely. Similarly, Khiroya, Weaver and Madden (2009) evaluated the responses of medium secure forensic mental health units in England. These authors found that actuarial tools were more commonly used than SPJ tools with respect to the assessment
of sexual violence risk. However, SPJ tools were highly rated in terms of their utility and were considered to inform risk management to a greater degree than actuarial methods.

**Study aims and objectives**

A previous study conducted by the present author explored the practice of sexual violence risk assessment using the RSVP in an NHS Sexual Offender Liaison Service (SOLS) in Scotland. The present study sought to extend these findings by considering whether the risk management recommendations made using the RSVP changed the way the offender was managed by partner criminal justice agencies. An additional aim was to explore the views of professionals from partner agencies with respect to the utility (or not) of the SPJ approach to risk assessment of sexual violence. A qualitative framework analysis was used to facilitate this process.

**Method**

**Framework Analysis**

This study employed a framework analysis methodology. Framework is a relatively recently developed approach to qualitative research in the social sciences. It was developed by researchers working in a social research institute in the UK, now known as NatCen Social Research, in the 1980s (Ritchie & Lewis, 2003). The framework approach has been used by NatCen in numerous publications since then. In the sexual offending field, the European Online Grooming Project (Webster et al., 2012) and the Attitudes to Sexual Offending Project (McNaughton Nicholls, Mitchell, Simpson, Webster, & Hester, 2012) have both been undertaken by NatCen and both have utilised framework analysis (see [www.natcen.ac.uk](http://www.natcen.ac.uk) for further details). Smith and Firth (2011)
noted that framework has been used increasingly in social and health related research because it is robust and transparent. It also provides a method of both managing and analysing qualitative data.

Although framework shares some similarities with other qualitative approaches such as thematic analysis (Quayle, 2012) and grounded theory (Smith & Firth, 2011) it has been argued that framework is ideally suited to research that has predetermined questions, a narrow time frame, or pre-existing issues that require attention (Srivastava & Thomson, 2009). Its purpose is primarily to describe and interpret rather than to generate theory (Ritchie & Lewis, 2003). The framework method was ideally suited to the present study as the study had predetermined questions about sexual violence risk assessment, there was a limited time frame, and because the sample was made up of criminal justice professionals rather than lay members of the public.

The service: NHS Lothian Sex Offender Liaison Service (SOLS)
The SOLS was developed to provide clinical input to help criminal justice agencies manage challenging sex offenders in the community. It aims to improve management of the most challenging sexual offenders by providing specialist assessment, consultation, advice, training, and clinical supervision to criminal justice agencies. The service takes referrals directly from partner agencies (particularly criminal justice social work services and police offender management units) and provides various levels of input. With respect to risk assessment, the service offers a comprehensive clinical assessment of individuals whom criminal justice agencies are finding difficult to manage. Approximately 78 per cent of these individuals attract personality disorder diagnoses (Russell & Darjee, in press). Risk assessment and management advice is offered and this is structured using the RSVP method.
Referrals are taken from the Lothian & Borders Community Justice Authority (CJA) area. This area constitutes a mix of urban, rural and semi-rural environments. A recent publication reported that the population is estimated to be 939,020 (Scottish Government, 2010). In 2010, 599 sexual offenders were registered and at liberty in the CJA area, corresponding to 64 registered sexual offenders per 100,000 of the population. (Scottish Government, 2010).

The SOLS assessment process involves two main components and its ultimate aim is to provide risk assessment and management advice using the RSVP method. Substantial quantities of file information are reviewed, and the clinical interview and assessment of the offender is subsequently undertaken. The assessment process is described in detail elsewhere (Russell & Darjee, in press) and follows the protocol suggested by the RSVP. The risk assessment and management advice generated using the RSVP is then shared with the referrer both verbally and in writing.

**Participants and Procedure**

Study participants were identified through review of case-file information and of the SOLS referral database. Approximately 100 referrals were received for a comprehensive SOLS risk assessment and the referrers of each of these individuals were contacted via email or post initially. Each participant was sent a covering letter explaining that they had been contacted as they had referred an offender to the SOLS. The offender was identified by name in order to refresh the memory of the participant. The purpose of the research was explained briefly in writing and participants were asked to complete a short questionnaire (shown in appendices 12 and 13). The questionnaire asked five questions pertaining to the effect that the SOLS risk assessment had on: risk management planning; monitoring of the offender; supervision
of the offender; treatment of the offender; and victim safety planning. Space was provided for the participant to record reasons why the SOLS risk assessment did not change the management of the offender. Participants were asked to return the questionnaires by post or email and responses were anonymous.

Unfortunately, there was a relatively low response rate, with only 15 of the 100 questionnaires returned. In response to this low uptake, and in order to maximise participation, a series of semi-structured interviews were conducted with participants. These participants were contacted via email by the author and were interviewed at their places of work. Sixteen interviews were conducted in total. Six interviews were conducted with criminal justice social workers, four with criminal justice social work managers, five with police officers from a Lothian & Borders Police offender management unit and one with a senior member of staff from a hostel used to house high risk sexual offenders. Participants have been assigned pseudonyms in order to preserve their anonymity but their identity was known to the author. Prior to interview commencement they were reminded verbally that their participation was voluntary and that they were free to withdraw from the study at any point. Interviews were conducted in private, on a one-to-one basis, and lasted a minimum of 15 minutes in total. The structure of the original research questionnaire was adhered to, although interviews were semi-structured. The interview schedule acted as a guide and participants were afforded the opportunity to discuss information that they considered to be relevant to the study.

Interviews were recorded on a digital recording device and were transcribed verbatim. These verbatim transcripts and the previously completed questionnaires made up the raw data of the study. Data were analysed according to the process described by Ritchie and Lewis (2003). NVivo (version 9.2) qualitative analysis software was used to
facilitate this process. First, the researcher becomes familiarised with the data in its raw form, identifying key processes and themes that emerge. Second, an initial thematic framework is developed using notes taken at the familiarisation stage. The researcher allows the data to “dictate the themes and issues” at this point (Srivastava & Thomson, 2009, p. 76). Third, the transcripts and questionnaires are “indexed”. That is, parts of the data that correspond with a particular theme are identified and coded. Fourth, the parts of the data that are indexed are then organised into charts and matrices. The columns in these matrices represent themes and subthemes while the rows correspond to individual interviews (Webster, et al., 2012). Fifth, the charted data is interrogated in order to explain themes and patterns. Similarities and differences in views are explored and hypotheses tested (Ritchie & Lewis, 2003). The overall process is iterative rather than linear. The framework matrices are not normally presented in reports and instead are used to structure the narrative account shown below in the results section.

**Results**

Five major themes emerged from the analysis of interview and questionnaire data: (1) Informing risk management; (2) Confirming what was known and giving weight; (3) Understanding personality; (4) Treatment; and (5) The usefulness and the limitations of the risk assessment. All five themes are discussed along with potential links between themes. A discussion of the clinical implications follows.

**Theme 1: Informing risk management**

Almost all of the participants noted that the SOLS risk assessment had informed risk management planning, at least to some degree. There was some variation in exactly how big a part the risk assessment had played. For example, Frank noted that:
It [the assessment] was helpful because it framed his entire risk management plan. (Frank).

Similarly, Peter explained that:

There is so much helpful information about how to work with this individual, how he is going to progress, when he should progress, in what circumstances, how he should be tested, what do you need to look out for in his personality. There is so much detail in there and I think having it in one place is really, really helpful. (Peter).

In both quotes it is clear that the SOLS risk assessment has had a dramatic impact upon risk management planning and that both participants have found this helpful. Peter also appears to suggest that it is helpful when the assessment is comprehensive, detailed and when helpful information about a client is contained in a single document. Numerous participants suggested that the SOLS risk assessment had played a role in determining whether the offender progressed from prison, although this was not always the case.

Several participants spoke about the risk management planning process in more detail. They noted that the risk assessment identified specific risks of reoffending for the individual offender rather than global definitions of risk that they found unhelpful. For Jane, this more specific formulation of risk allowed management to be less risk averse.

... and yes, things that informed the risk management plan. What risk does he pose. ... and we were less risk averse. We allowed him to go and do things that he wouldn’t otherwise have been allowed to do. There were less external controls on him. ... As time went on. ... We were pretty robust early on but we were allowed to do that. (Jane).

As well as pointing out that identification of specific risks is a helpful aspect of the SOLS risk assessment, Jane also hinted that the risk management plan is comprehensive, and considered interpersonal as well as “external factors” such as how
often the offender is supervised and monitored. This was mentioned by several participants.

It is important to emphasise that the SOLS risk assessment was not considered to be a perfect document and that other services play their own roles in the risk management planning of the offender. This was highlighted in the second theme identified.

**Theme 2: Confirming what was known and giving weight**

On a number of occasions participants explained that part of the usefulness of the SOLS risk assessment was in confirming what was already known and in some cases “giving weight” or credibility to what was already being said.

I think that the report was done and really added to what I was saying but really largely confirmed my feelings about the case in terms of the risk. (John).

Again, I think we were taking an approach that seemed to be quite appropriate on the basis of the information that came out of the SOLS report. So there wasn’t anything in this specific case that I could say, we hadn’t thought of that, or, we should be doing this differently. (Peter)

One criminal justice social work manager explained that by referring an offender for a specialist risk assessment his staff were giving up an element of control and that this was a difficult thing for staff to do initially. Participant responses could be seen as being defensive given this context. However, some participants reported that they had not been listened to by other professionals and that it was useful to have another voice in agreement with their own.

[The risk assessment] made everybody sit up at MAPPA. Not that they don’t sit up but there was much more willingness to cooperate and get resources put into this. (Frank).
The term “giving weight” or “adding weight” was one that was used by a number of participants. There were two aspects to this. The SOLS risk assessments appeared to often be concordant with the recommendations of referrers and therefore added weight or value to these recommendations. In addition, the reports were viewed as being very influential and were taken extremely seriously by senior figures with respect to risk assessment and management of offenders.

It’s because psychology and psychiatric reports are much more credible to the courts when making any judgement about personality. (James).

It has given some weight to the idea that he is not an extremely dangerous chaotic offender who would lift someone off the street... and I think that maybe it has helped some of the other agencies recognise that. (John).

While participants often valued the support or weight that a SOLS risk assessment provided, some participants emphasised that this was not the only consideration. Other agencies and external factors are involved in the process.

It does hold a lot of weight but we also recognise that there are lots of other partners around the table and we take their views as well. We have to give them equal weight. (Anne).

As can be ascertained from Anne’s quote, numerous factors have to be taken into consideration when managing an offender. What participants seemed to be saying was that the SOLS had a particular expertise and role and although that expertise was valuable, others also had differing, complementary, areas of expertise. One area in which the SOLS risk assessments were viewed as being very valuable pertained to the assessment and formulation of personality.
Theme 3: Understanding personality

In discussions about SOLS risk assessments the topic of personality (and personality disorder) invariably arose. Participants reported that they found it helpful to consider how the offender’s personality had developed. Many reported that they found it helpful to have a personality disorder diagnosis as this enabled them to think about and manage the offender in specific ways. However, what participants appeared to find most helpful was a formulation of the offender and the risk that they represented. This was described by one participant as “separating the risk from the personality”. Following on from this, the SOLS risk assessments often gave tips or recommendations on how to work with the offender given his personality difficulties. This was considered to be very important by participants.

The risk assessment provided a much clearer insight into the behavioural characteristics of the offender and gave significant understanding of how his difficult upbringing may to a large degree have influenced his emotions, thought processes and motivations leading to his sexual offending. (Anonymous questionnaire response).

The anonymous quote above describes the process of formulation and of personality development and the utility of this could easily be ascertained. The helpfulness of personality disorder diagnoses was not expected by the author; however, it also featured prominently in the responses of the participants who were interviewed.

It helpfully explained the personality disorder. What was really helpful was that he did not have a psychopathic personality disorder but he was a sadist. There were things we were worried about, concerned, and it was really helpful to have that kind of concrete assessment. (Jane).
And a diagnosis. Because we’ll interview clients but we don’t actually have the in
depth tools or psychological or psychiatric background to be able to make those
diagnoses. (Anne).

What was also evident was that the formulations and diagnoses were being used by
participants in a very practical way to consider their responses to offenders and to
consider interpersonal and relationship processes more generally. This was viewed as
being one of the biggest benefits of the SOLS risk assessments.

The fact that he has been identified as having a narcissistic personality disorder
does provide corroboration of how he presents generally and has ensured that a
different approach has been taken when engaging him during monitoring.
(Anonymous questionnaire response).

The SOLS report helped us understand that that is the way he would behave and
how we reacted to his behaviour. (David).

So actually going back to the basics and having a sense about, on an interpersonal
level and on the basis of his personality how can we work with this man and not
make him feel humiliated, not make him feel isolated. (Peter).

The SOLS risk assessments appear to have had an impact on how participants worked
interpersonally with offenders based on these responses. This is encouraging as the
participants were a very skilled and competent group of professionals and were more
than capable of managing these relationships effectively.

**Theme 4: Treatment**

One powerful theme that emerged from the data concerned treatment of offenders. The
participants explained that for some offenders the SOLS risk assessment (and perhaps
diagnosis) allowed them to access treatment that would not otherwise have been
available. In more than one case, the SOLS risk assessment had resulted in a diagnosis
of intellectual disability and because of this the offender was able to access local intellectual disability services. In other instances, offenders were commenced on anti-libidinal medication following SOLS risk assessment, since one of the psychiatrists in the SOLS has specialist expertise in this area.

It has allowed us to access services which would probably have been off-limits before, so he is working with the forensic learning disability service now and I think that wouldn’t have necessarily happened before. And that has certainly been a big help. (John).

As a result of the SOLS assessment he was being released on anti-libidinal medication. (Frank).

Made clear (radical) proposals for treatment that would not otherwise have been considered. (Anonymous questionnaire response).

It appears that participants generally found it of value when treatments became available as a result of the SOLS risk assessment. Interestingly, many participants reported that some treatments were ruled out or advised against as it was considered that they could be unhelpful as a result of the SOLS risk assessment. This type of recommendation was also viewed as being positive.

That was very good that the assessment said he doesn’t need any ongoing treatment as such. The treatment is social inclusion and risk management and all of those kind of bits. But we’re not talking about a direct psychological or forensic intervention. (James).

It [psychological treatment] would make it worse actually. It would make his anger worse anyway. That is helpful. That is really helpful to know, and it is in a number of cases. (Jane).

This theme is linked to the theme of “giving weight” as it appears from these quotations
that the SOLS risk assessments can have a dramatic effect on how the offender is managed and treated. It seems that the participants are generally in agreement with the SOLS when specific treatments are likely to be unhelpful, especially when it could destabilise the offender or could result in waste of resources that would be better spent elsewhere.

**Theme 5: The usefulness and the limitations of the risk assessment**

The final theme concerned the utility and limitations of SOLS risk assessments. This theme is likely to have been influenced by response bias as the lead interviewer was a representative of the service. It is therefore less likely that the participants would be critical of the service. Similarly, questionnaire responses were almost all positive, again perhaps reflecting response bias. Several participants reported that the SOLS risk assessment was helpful as a document because it was detailed and comprehensive.

> These are comprehensive documents but in my experience they are not vanity projects putting stuff down for the sake of it. They are very detailed and grounded. . . I think they are very helpful. (Peter)

Participants noted that the risk assessments were not simply detailed and comprehensive but also practical and useful. One part of the structured professional judgement approach to risk assessment that was particularly valued was the emphasis on dialogue with partner agencies. This was mentioned in almost all of the participants’ responses.

> There is ongoing dialogue and we also get updates about, ‘We have interviewed him and this is what we think. This is where our assessment is going’. It’s an ongoing dialogue. (Anne).

> And incredibly helpful for [the risk assessor] to come to talk to me about him too. (Jane).
. . . the back-up of having meetings with [the risk assessor] and coming and explaining what the report is actually saying in laymen’s terms. . . I think that is a brilliant thing. (David).

In terms of the limitations of the approach, few were mentioned by participants. One issue was raised mainly by criminal justice social workers and related to the “weight” or credence that SOLS risk assessments were given. These participants noted that the recommendations made for risk management needed to be realistic. They explained that historically that had not always been the case but that this issue had been resolved through dialogue.

One of the issues we’ve probably ironed out… there were some issues. Recommendations were made about supervision and management of the case and they were going to the parole board and we couldn’t always meet those recommendations. (Jane).

Only one response was overtly critical of the SOLS approach to risk assessment and as might be expected this was an anonymous questionnaire response.

Report not received until five months after patient was discharged from my service. (Anonymous questionnaire response).

This participant has highlighted one of the limitations of the structured professional judgement method in that this type of assessment is a lengthy and resource intensive piece of work. Only one participant made this criticism. However, this could reflect response bias. Participants who chose to respond to the questionnaire or who participated in an interview may have been less likely to be critical of the service.
Discussion

The present study provides some useful data on the views of referrers to a specialist sexual offender liaison service, specifically concerning SPJ risk assessment and the utility of this approach. Within this context, five themes emerged from the framework analysis. The first theme, informing risk management, highlighted that risk assessment informed the way in which the offenders were managed in a very practical sense. However, this was not always the case and further exploration of the factors that hindered the implementation of risk management plans may be useful.

The second theme, confirming what was known and giving weight, demonstrated that at least some of what is presented in a SPJ risk assessment may already be known to the referrer. This theme also highlighted the importance and credence that is given to a SOLS risk assessment. Participants, on occasion, noted that they had not felt listened to until their opinion was supported by the SOLS risk assessment. This may be an important point to follow up. Similarly, the leverage and power afforded to the risk assessment may put pressure on the assessor to “get it right” and this issue could also be explored.

The third theme spoke of the importance of understanding personality. Participants invariably mentioned that it was helpful to understand how the personality of the offender had been shaped and how this might influence behaviour at the present time. Diagnosis, particularly of personality disorder, was viewed as a useful process and recommendations on how to work with individuals who attract personality disorder diagnoses were valued.

The fourth theme concerned treatment. Participants explained that, for some offenders, the risk assessment process had resulted in treatments being accessed that
might not otherwise have been available, such as anti-libidinal medication. Similarly, many participants found it helpful when treatments that could be unhelpful were advised against.

The fifth theme emphasised the usefulness of the SPJ approach to risk assessment implemented by the SOLS as well as some of its limitations. Participants indicated that assessments were detailed, comprehensive and practical. These were considered to be strengths of the approach. Participants valued the dialogue that was offered both during and after the risk assessment process. With respect to limitations, historical issues concerning the practicality of risk management recommendations were mentioned. In addition, one participant highlighted a limitation with respect to timing.

The themes that emerged from the data suggested that referrers to the SOLS were satisfied with the SPJ risk assessments that they requested. The risk assessments and risk management plans appear to have changed or informed the practical management of the offender in most cases. The participants seem to have particularly valued the recommendations with respect to the interpersonal management of offenders who attract personality disorder diagnoses. Recommendations about treatment (or not) were also valued. An interesting finding was that this type of risk assessment appears to be taken extremely seriously by senior officials involved in risk management (such as parole boards). With such power comes responsibility, and it is therefore of paramount importance that recommendations are evidence-based and defensible.

While there are doubtless numerous service evaluations addressing risk assessment that remain unpublished, the author is unaware of any published findings that use the framework qualitative approach demonstrated in the present study. The study of risk assessment of sexual violence has until now focused on recidivism outcome and this is an important determinant of validity. However, the clinical practice
of risk assessment is also important and the users of SPJ risk assessments are key stakeholders in this process. It is difficult to make any more general statements based upon a qualitative study such as this with a relatively small sample size but the study shows that the SPJ risk assessment method is valued and is of practical use to the majority of the study participants. These findings are consistent with the small literature on the utility of SPJ risk assessment. Both Green et al. (2010) and Khiroya et al. (2009) found that SPJ risk assessment tools were used widely in forensic mental health. Khiroya et al. (2009) noted that the SPJ tools were rated highest with respect to utility. They were considered to inform risk management to a greater extent when compared against actuarial tools.

Limitations of the Study

There were two main limitations of the study. First, the location and qualitative nature of the study means that the findings cannot be generalised to other populations or services. Despite this, the findings were important in the local context since they will be circulated to the SOLS management team and local service planning officials. It is hoped that the SOLS service, particularly the approach to SPJ risk assessment, can be shaped according to the needs of the users of these risk assessments. This represents success at a local level. In addition, this study has demonstrated the value of qualitative research in the sexual violence risk assessment field. The framework approach appears to be ideally suited to this area of research. Hart and Boer (2010) have suggested that qualitative approaches could be used to investigate the process of formulation and risk judgment in SPJ risk assessment. The framework approach could be of use.

Second, the study is likely to be affected by response bias. Only one of the 15 anonymous questionnaire responses made any kind of criticism of the SOLS risk
assessment. The author, who conducted all of the semi-structured interviews, was also a representative of the SOLS service and it is likely that this made it difficult for the participants to be critical. Participants were encouraged to be as open as possible and any criticisms or limitations were listened to respectfully. However, interviews led by an interviewer who is perceived to be neutral would have improved the study quality. It will be important to bear this in mind in similar, future qualitative research.

**Conclusion**

The present study sought to explore the real-world clinical practice of the SPJ risk assessment approach through qualitative investigation of the accounts of referrers to a specialist sexual offender liaison service. The framework method of qualitative analysis proved fruitful and revealed five major themes. These themes suggested that the SPJ risk assessments conducted by the SOLS informed risk management of the offender in most cases. The risk assessment was viewed as being confirmative in some cases and was very influential. Participants valued advice concerning management of interpersonal relationships with individuals diagnosed with personality disorder. Recommendations regarding treatment were also highly valued. The risk assessments were generally viewed as useful, with dialogue between services an important element. Limitations with respect to timing arose on one occasion.

The study has important implications for the NHS Lothian SOLS but perhaps also more generally. If, as in this study, SPJ risk assessments are extremely influential then the process of risk assessment needs to be evidence based and defensible. Further research investigating the clinical practice of risk assessment of sexual violence is warranted and research should perhaps look beyond the use of recidivism data as an outcome. Further qualitative research might facilitate that process.
References


CHAPTER VIII
SUMMARY AND CONCLUSIONS
The main aim of this thesis was to explore the clinical practice of risk assessment of sexual violence in an NHS sex offender liaison service in southeast Scotland. The thesis focused on the practice of the structured professional judgement approach to risk assessment.

In Chapter 1 the systematic review identified psychological risk factors for sexual recidivism. Several large scale meta-analyses had previously been conducted. However, these analyses did not emphasise the critical appraisal of included studies. This was remedied in Chapter 1. The included studies suggested that psychopathy (or antisociality) and sexual deviance were important risk factors for sexual recidivism in adult, contact, male offenders. Inconsistent results were found with respect to denial. Despite these findings, important methodological weaknesses in the literature were identified concerning generalisability, low base rates and the reporting of results.

Chapters 2 to 5 described study 1. This study was informed by the systematic review. It had two main aims. First, to explore the process through which risk judgements were made using the SPJ approach. Second, to examine whether key predictors of recidivism were given the weighting that the literature suggested that they merited in the clinical practice of the SOLS. Univariate and multivariate statistical methods were employed with risk score as the dependent variable. The results suggested that psychopathy, denial and sexual preoccupation were all significantly associated with risk score while sexual deviance and problems with intimate relationships were not. Explanations for these findings and directions for future research were suggested in Chapter 5. One suggested direction for research was an evaluation of the utility of structured professional judgement risk assessment of sexual violence.

Chapters 6 and 7 described study 2. This study used the qualitative framework method and considered whether risk management recommendations made using the RSVP changed
the actual management of offenders. Referrers’ views on the utility of SPJ risk assessment methods were also elicited. Study 2 found that the recommendations made by the SOLS had informed risk management planning in most cases. Referrers to the SOLS also considered that the SPJ approach was useful and practical. Advice on the management of offenders who had attracted personality disorder diagnoses was particularly valued.

The thesis has some limitations but also important strengths. It makes an important contribution to research on risk assessment of sexual violence. It contains the first systematic review of risk factors for sexual recidivism that emphasises the critical appraisal of included studies. Studies 1 and 2 are explorations of the clinical practice of risk assessment of sexual violence, an area which has not received a great deal of research attention. The studies were also conducted in Scotland, a further strength, since previous research has mainly been conducted in North America. Despite some difficulties it is hoped that the thesis can stimulate further research investigating the process of risk assessment so that the ultimate goal of protecting the public is achieved through evidence based means.


Freeman, J., Palk, G., & Davey, J. (2011). Sex offenders in denial: A study into a group of forensic psychologists' attitudes regarding the corresponding impact upon risk assessment


Consulting and Clinical Psychology, 78(4), 574-584. doi: 10.1037/a0019734


Risk Management Authority. (2012). About the RMA Retrieved 1 April, 2012, from


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APPENDIX 1

INSTRUCTIONS FOR AUTHORS
Instructions for Authors

Manuscript preparation

The Editor welcomes the opportunity to consider papers which examine the nature and impact of sexual aggression, as well as its prevention and treatment. Priority is afforded to articles containing original material and which are likely to contribute to the advancement of knowledge in the field. As such, several types of contribution are welcomed:

a) Research and conceptual developments - papers reporting the findings of empirical research or the development of theory/conceptual models.

b) Reviews - literature reviews or commentaries focusing upon specific issues of relevance.

c) Practice - articles presenting clinical practice or programme descriptions.

d) Debate - brief responses to articles which have appeared in previous issues of the Journal.

The Editor can be contacted by potential contributors wishing to discuss a proposal or seeking advice or guidance on preparation of a submission. If you are planning to submit an overlength paper, please contact the Editorial Office in advance:

Editorial Office

Linda Evans, Administrator,
Journal of Sexual Aggression
Richard Crossman Building RC105
Faculty of Health and Life Sciences
Coventry University
Priory Street
Coventry
CV1 5FB
UK (email: adminjsa.hls@coventry.ac.uk).

1. General guidelines

- Papers are accepted only in English. British English spelling and punctuation is preferred.
- A typical article (Research and conceptual development) will not exceed 6,000 words; 'Reviews' up to 8,000 words; 'Practice' articles between 2,000-4,000 words; 'Debate' articles between 750-1,500 words. Papers that greatly exceed this will be critically reviewed with respect to length. Authors should include a word count with their manuscript.
- All the authors of a paper should include their full names, affiliations, postal addresses, telephone and fax numbers and email addresses on the cover page only of the manuscript. One author should be identified as the Corresponding Author.
- Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgements; appendixes (as appropriate); references; table(s) with caption(s) (on individual pages); figure caption(s) (as a list).
- Abstracts of 150 words are required for all papers submitted.
- Each paper should have six keywords.
- Section headings should be concise and numbered sequentially, using a decimal system for subsections.
- Biographical notes on contributors are not required for this journal.
- For all manuscripts non-discriminatory language is mandatory. Sexist or racist terms should not be used.
- Authors must adhere to SI units. Units are not italicised.
- When using a word which is or is asserted to be a proprietary term or trade mark, authors must use the symbol ® or TM.

2. Style guidelines

- Description of the Journal's article style, Quick guide
- Description of the Journal's reference style, Quick guide
- Please use British spelling (e.g. colour, organise) and punctuation. Use single quotation marks with double within if needed.
- If you have any questions about references or formatting your article, please contact authorqueries@tandf.co.uk (please mention the journal title in your email).

Word templates
Word templates are available for this journal. If you are not able to use the template via the links or if you have any other queries, please contact authortemplate@tandf.co.uk

3. Footnotes and Tables

Footnotes are not normally permitted but endnotes may be used if necessary. Tables should be laid out clearly and supplied on separate pages, with an indication within the text of their approximate location. Vertical lines should be omitted, and horizontal lines limited to those indicating the top and bottom of the table, below column headings and above summed totals. Totals and percentages should be labelled clearly.

4. Reproduction of copyright material

As an author, you are required to secure permission if you want to reproduce any figure, table, or extract from the text of another source. This applies to direct reproduction as well as "derivative reproduction" (where you have created a new figure or table which derives substantially from a copyrighted source). For further information and FAQs, please see http://journalauthors.tandf.co.uk/preparation/permission.asp. This applies to direct reproduction as well as 'derivative reproduction', where the contributor has created a new figure or table that derives substantially from a copyrighted source. Authors are themselves responsible for the payment of any permission fees required by the copyright owner. Copies of permission letters should be sent with the manuscript upon submission to the Editor(s).

- Copyright permission letter template

Manuscript submission

Manuscripts should be typed, double-spaced throughout, allowing 4 cm minimum margins. A standard 12 point font should be used.
<table>
<thead>
<tr>
<th>Running heads</th>
<th><em>(verse)</em> J. Smith and P. Jones or J. Smith et al. if 3 or more authors. If J.B. Smith then initials are closed up <em>(recto)</em> Journal Title position left and right of pages</th>
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<td>Headings</td>
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<td>Lists</td>
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</table>
| Punctuation | Initials (e.g. US, NJ, BBC) do not have full points between them.  
For names of article authors and in references, no space between initials (J.P. Smith, Smith, J.P. or Smith JP depending on reference style).  
Please consult the instructions for authors page for the journal for further details |
| Dashes | Spaced en rules for parenthetical dashes  
Use en rule between spans of numbers (e.g. 20–40), including page numbers in references |
| Numbers and units | Numbers: spell out one to nine, then 10, 1000, 10,000  
10% (except at start of sentence)  
Units: follow author |
| Dates | 4 October 2005  
in the twenty-first century  
in the 1970s |
| Editorial | Editorial (as title)  
If editorial has a title, use  
EDITORIAL (section heading)  
Title of editorial  
Editor Name  
Affiliation if wanted |
| Other article types | Follow style for main article |
| Book reviews | BOOK REVIEWS (as section heading)  
**Book title**: all bold, by Author and Author / edited by Editor,  
Cambridge, Harvard University Press, 2003, xliii + 584 pp.,  
US$28.95 (paperback), ISBN 0-95-445440-6  


**Book title**, edited by Editor, Editor and Editor, Abingdon,  


Reviewer’s Name  
Affiliation  
Email  
(c) year, Reviewer Name |
| Obituary | OBITUARY (section heading)  
Name and dates if given (as title)  
Author Name  
Affiliation  
Email |
APPENDIX 2

REASONS FOR EXCLUSION FROM SYSTEMATIC REVIEW
REASONS FOR EXCLUSION

8. Freeman et al. (2007)  Risk factors are not psychologically meaningful and study focuses on demographic characteristics.
APPENDIX 3

SYSTEMATIC REVIEW QUALITY ASSESSMENT TOOL
QUALITY ASSESSMENT TOOL

A. STUDY OBJECTIVES
1. Does study address an appropriate and clearly focused question?
   i. Yes
   ii. No
   iii. Can’t tell

B. SELECTION BIAS
2. Are individuals selected to participate in the study likely to be representative of adult male contact sexual offenders?
   i. Very likely
   ii. Somewhat likely
   iii. Not likely
   iv. Can’t tell
3. What percentage of selected individuals agreed to take part?
   i. 80-100%
   ii. 60-79%
   iii. less than 60%
   iv. Not applicable
   v. Can’t tell

C. WITHDRAWALS AND DROP OUTS
4. Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?
   i. Yes
   ii. No
   iii. Can’t tell
   iv. Not applicable
5. Indicate the percentage of participants completing the study. (If the percentage differs by group, record the lowest.)
   i. 80-100%
   ii. 60-79%
   iii. less than 60%
   iv. Can’t tell
   v. Not applicable
D. ASSESSMENT AND DATA COLLECTION METHODS

6. Was sexual recidivism clearly defined?
   i. Yes
   ii. No
   iii. Can’t tell

7. Was method of outcome clearly stated? (Eg. Sexual reconviction vs charge or parole violation)
   i. Yes
   ii. No
   iii. Can’t tell

8. Were researchers blind to recidivism outcome? (Did they know who had recidivated?)
   i. Yes
   ii. No
   iii. Can’t tell

9. Outcome measured in same way across all participants? (Same data sources used?)
   i. Yes
   ii. No
   iii. Can’t tell

RATE THIS SECTION

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<th>WEAK</th>
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<td>2</td>
<td>3</td>
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</table>

E. FOLLOW-UP AND SAMPLE SIZE

10. How long was the follow-up period? (If varies give mean value reported. If more than one group give lowest mean value)
    i. Ten or more years
    ii. 5-9 years
    iii. 2-4 years
    iv. less than two years

11. Was sample size adequate for the method of analysis used?
    i. Yes
    ii. No
    iii. Can’t tell

RATE THIS SECTION

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</table>
F. VALIDITY AND RELIABILITY OF MEASURES

12. Were data collection (eg. Psychometric assessment) tools shown to be valid?
   i. Yes
   ii. No
   iii. Partially
   iv. Not applicable

13. Were data collection tools (eg. Psychometric assessment) shown to be reliable?
   i. Yes
   ii. No
   iii. Partially
   iv. Not applicable

RATE THIS SECTION


G. ANALYSES

14. Are the statistical methods appropriate for the study design?
   i. Yes
   ii. No
   iii. Partially
   iv. Not applicable

RATE THIS SECTION

A. STUDY OBJECTIVES

B. SELECTION BIAS

C. WITHDRAWAL AND DROP-OUTS

D. ASSESSMENT AND DATA COLLECTION

E. FOLLOW UP AND SAMPLE SIZE

F. VALIDITY AND RELIABILITY

G. ANALYSES

GLOBAL RATING FOR THIS PAPER

1. STRONG (no WEAK ratings)
2. MODERATE (one WEAK rating)
3. WEAK (two or more WEAK ratings)

NB: IF A SECTION IS NOT APPLICABLE TO THE STUDY THIS IS NOT COUNTED AS BEING A WEAK RATING.
With both reviewers discussing the ratings:

Is there a discrepancy between the two reviewers with respect to the component (A-G) ratings?

   NO       YES

If yes, indicate the reason for the discrepancy
   1. Oversight
   2. Differences in interpretation of criteria
   3. Differences in interpretation of study

FINAL DECISION OF BOTH REVIEWERS
   1. STRONG
   2. MODERATE
   3. WEAK
APPENDIX 4

SCORING PROCEDURE FOR SYSTEMATIC REVIEW QUALITY ASSESSMENT TOOL
Quality Assessment Tool for Quantitative Studies Dictionary

The purpose of this dictionary is to describe items in the tool thereby assisting raters to score study quality. Due to under-reporting or lack of clarity in the primary study, raters will need to make judgements about the extent that bias may be present. When making judgements about each component, raters should form their opinion based upon information contained in the study rather than making inferences about what the authors intended.

A) STUDY OBJECTIVES

Were the study objectives clearly formulated and reported. This information is likely to be included in the Introduction section of the paper and may be labelled as “study aims” or “hypotheses”.

Score **YES** if the authors have BOTH clearly formulated and reported study objectives. Score **NO** if the authors have NOT addressed an appropriate question OR if the objectives are not reported at all. Score **CAN’T TELL** if the study objectives are poorly reported.

B) SELECTION BIAS

(Q2) Participants are more likely to be representative of the target population if they are randomly selected from a comprehensive list of individuals in the target population (score very likely). They may not be representative if they are referred from a source (e.g. clinic) in a systematic manner (score somewhat likely) or self-referred (score not likely).

(Q3) Refers to the % of subjects in the control and intervention groups that agreed to participate in the study before they were assigned to intervention or control groups.

C) WITHDRAWALS AND DROPOUTS

Score **YES** if the authors describe BOTH the numbers and reasons for withdrawals and drop-outs. Score **NO** if either the numbers or reasons for withdrawals and drop-outs are not reported. The percentage of participants completing the study refers to the % of subjects remaining in the study at the final data collection period in all groups (i.e. control and intervention groups).

D) ASSESSMENT AND DATA COLLECTION METHODS

(Q6) Score **YES** if a clear and unambiguous definition of sexual recidivism is specified. Score **NO** if sexual recidivism is not clearly defined OR if sexual recidivism is not used as an outcome measure (e.g. SERIOUS recidivism is used instead).

(Q7) Linked to Q6. Score **YES** if it is specified which datasource is used (e.g. Sexual reconviction, sexual charge, parole violation). Score **NO** if datasource is not specified or is not clearly specified.

(Q8) If researchers were scoring psychometric and risk assessment measures retrospectively, were they aware of who had recidivated or not. Score **YES** if they were blind to recidivism outcome. Score **NO** if they were aware of recidivism outcome. Score **CAN’T TELL** if this is not clear.

(Q9) Was outcome measured in the same way for all participants. For example were there different thresholds for recidivism in studies which used more than one sample? Score **YES** if outcome measured in same way for all. Score **NO** if there were clearly reported differences. Score **CAN’T TELL** if there are different groups and this is not clearly reported.
E) FOLLOW UP AND SAMPLE SIZE

For studies in which follow-up varied give mean value. If there was more than one group give lowest mean value. Score in years. For sample size assess sample size in the context of method of data analysis.

F) VALIDITY AND RELIABILITY OF MEASURES

Tools for primary outcome measures must be described as reliable and valid. If ‘face’ validity or ‘content’ validity has been demonstrated, this is acceptable. Some sources from which data may be collected are described below:

Self reported data includes data that is collected from participants in the study (e.g. completing a questionnaire, survey, answering questions during an interview, etc.).

Assessment/Screening includes objective data that is retrieved by the researchers. (e.g. observations by investigators).

Medical Records/Vital Statistics refers to the types of formal records used for the extraction of the data.

Reliability and validity can be reported in the study or in a separate study. For example, some standard assessment tools have known reliability and validity.

G) ANALYSES

Was the quantitative analysis appropriate to the research question being asked?
An intention-to-treat analysis is one in which all the participants in a trial are analyzed according to the intervention to which they were allocated, whether they received it or not. Intention-to-treat analyses are favoured in assessments of effectiveness as they mirror the noncompliance and treatment changes that are likely to occur when the intervention is used in practice, and because of the risk of attrition bias when participants are excluded from the analysis.
Component Ratings of Study:
For each of the six components A – F, use the following descriptions as a roadmap.

A) STUDY OBJECTIVES

Strong: The study objectives are clearly formulated and reported (Q1: YES)
Moderate: The study objectives are less clearly formulated and reported but are interpretable. (Q1: NOT CLEAR)
Weak: The study objectives are not clearly formulated, or are not reported at all and are not interpretable. (Q1: NO)

B) SELECTION BIAS

Strong: The selected individuals are very likely to be representative of adult male contact sexual offenders (Q2 is 1) and there is greater than 80% participation (Q3 is 1).
Moderate: The selected individuals are at least somewhat likely to be representative of adult male contact sexual offenders (Q2 is 1 or 2); and there is 60 - 79% participation (Q3 is 2). 'Moderate' may also be assigned if Q2 is 1 or 2 and Q3 is 5 (can’t tell).
Weak: The selected individuals are not likely to be representative of adult male contact sexual offenders (Q2 is 3); or there is less than 60% participation (Q3 is 3) or selection is not described (Q2 is 4); and the level of participation is not described (Q3 is 5).

C) WITHDRAWALS AND DROPOUTS - a rating of:

Strong: will be assigned when the follow-up rate is 80% or greater (Q5 is 1).
Moderate: will be assigned when the follow-up rate is 60 – 79% (Q5 is 2) OR Q5 is 5 (N/A).
Weak: will be assigned when a follow-up rate is less than 60% (Q5 is 3) or if the withdrawals and drop-outs were not described (Q5 is 4).

D) ASSESSMENT AND DATA COLLECTION METHODS

Strong: Sexual recidivism clearly defined (Q6 is 1) AND specified how collected (Q7 is 1). AND researchers blind to recidivism outcome (Q8 is 1). AND outcome measured in same way across all participants (Q9 is 1). Four scores of 1.
Moderate: Either Q6, Q7, Q8 or Q9 has a score of 2 or 3. Thus one area of assessment and data collection is not addressed or is poorly reported.
Weak: Two or more scores of 2 or 3 are recorded for Q6, Q7, Q8 and Q9. Thus, at least two areas of assessment and data collection are not addressed or are poorly reported.

E) FOLLOW-UP AND SAMPLE SIZE

Strong: The study has both an lengthy follow-up period (Q10 is 1 or 2) and an adequate sample size (Q11 is 1).
Moderate: The study has an adequate follow-up period (Q10 = 1 or 2) BUT DOES NOT HAVE a sizeable sample (Q11 is 2 or 3). OR the study DOES NOT HAVE a lengthy follow-up period (Q10 is 3) BUT has an adequately sized sample (Q11 is 1).
Weak: The study has BOTH an inadequate follow up period (Q10 is 3) AND an inadequate sample size (Q11 is 2 or 3)
OR a score of 4 is recorded for either Q10 or Q11.
OR either sample size, follow-up length or both is not reported clearly.

F) VALIDITY AND RELIABILITY OF MEASURES

Strong: The data collection tools have been shown to be valid (Q12 is 1); and the data collection tools have been shown to be reliable (Q13 is 1).
Moderate: The data collection tools have been shown to be valid (Q12 is 1); and the data collection tools have not been shown to be reliable (Q13 is 2) or reliability is not described (Q2 is 3).
Weak: The data collection tools have not been shown to be valid (Q12 is 2) or both reliability and validity are not described (Q12 is 3 and Q13 is 3).
G) ANALYSES

Strong: Score of 1 (YES) is recorded for Q14.
Moderate: Score of 3 (PARTIALLY) is recorded for Q14.
Weak: Score of 2 (NO) is recorded for Q14.
APPENDIX 5

SYSTEMATIC REVIEW DATA EXTRACTION FORM
### Systematic Review Data Extraction Form

<table>
<thead>
<tr>
<th>Study Name:</th>
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<th>Question</th>
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<tr>
<td>1. Objectives clear?</td>
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<td>2. Study design evident and appropriate?</td>
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<td>3. Recruitment process described and appropriate?</td>
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<td>4. Participants adequately described?</td>
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<td>5. Participants representative of average sexual offender?</td>
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<td>6. Sample size adequate?</td>
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<td>7. Sexual recidivism clearly defined?</td>
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<td>8. Independent and dependent variables adequately measured? (Reliability and Validity)</td>
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<td>9. If groups being compared: were they similar? Treated similarly? Controlled or matched?</td>
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<tr>
<td>10. Are measures used the most relevant for answering the research question?</td>
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<tr>
<td>11. Measures used in same way for all participants?</td>
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<td>12. Data analysis described, justified and appropriate?</td>
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<td>13. Risk assessed?</td>
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<td>14. How long was follow up?</td>
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<td>Question</td>
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<td>15. Did follow up length vary for participants?</td>
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<td>16. Missing information dealt with?</td>
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<td>17. Was attrition rate recorded?</td>
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<td>18. Was stage at which participant dropped out recorded?</td>
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<td>19. What are results / are they reported in sufficient detail?</td>
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<td>20. Conclusions supported by results?</td>
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<td>21. Do results fit with other available evidence?</td>
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<td>22. Are results reliable?</td>
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<td>23. Some estimate of variance reported for main results?</td>
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<td>24. Controlled for confounding?</td>
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<td>25. Can results be generalised to other populations?</td>
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APPENDIX 6

LIST OF RSVP ITEMS
RISK FOR SEXUAL VIOLENCE PROTOCOL: RISK FACTORS

1. CHRONICITY OF SEXUAL VIOLENCE
2. DIVERSITY OF SEXUAL VIOLENCE
3. ESCALATION OF SEXUAL VIOLENCE
4. PHYSICAL COERCION IN SEXUAL VIOLENCE
5. PSYCHOLOGICAL COERCION IN SEXUAL VIOLENCE
6. EXTREME MINIMIZATION OR DENIAL OF SEXUAL VIOLENCE*
7. ATTITUDES THAT SUPPORT OR CONDONE SEXUAL VIOLENCE
8. PROBLEMS WITH SELF-AWARENESS
9. PROBLEMS WITH STRESS OR COPING
10. PROBLEMS RESULTING FROM CHILD ABUSE
11. SEXUAL DEVIANCE*
12. PSYCHOPATHIC PERSONALITY DISORDER*
13. MAJOR MENTAL ILLNESS
14. PROBLEMS WITH SUBSTANCE USE
15. VIOLENT OR SUICIDAL IDEATION
16. PROBLEMS WITH INTIMATE RELATIONSHIPS*
17. PROBLEMS WITH NON-INTIMATE RELATIONSHIPS
18. PROBLEMS WITH EMPLOYMENT
19. NON-SEXUAL CRIMINALITY
20. PROBLEMS WITH PLANNING
21. PROBLEMS WITH TREATMENT
22. PROBLEMS WITH SUPERVISION

* Risk factors used in analysis.
APPENDIX 7

BEHAVIOURAL INDICATORS OF SEXUAL PREOCCUPATION

Taken from Structured Assessment of Risk and Need (SARN; Mann et al, unpublished)
Preoccupied with Sex

Behavioral Indicators
A) Total impersonal sexual outlets typically exceeded 6 per week for over six months.

B) At least three of the following apply
i. Masturbated more than 14 times a month for over six months when living in the community (exclude periods in the armed forces and institutions).
ii. Used pornography, sexual chat-lines or sexual websites for sexual stimulation more than twice a month for over six months.
iii. Typically had sex with more than 2 people a year in years in which was sexually active.
iv. Repeated unfaithfulness while married/cohabiting (incidents of unfaithfulness spanning more than six months)
v. On more than one occasion engaged in sex with two or more people at the same time.
APPENDIX 8

NHS ETHICS LETTER
Dear Jo,

**Full title of project: Sexual violence risk assessment: A regression analysis of risk judgements**

You have sought advice from the South East Scotland Research Ethics Service on the above project. This has been considered by the Scientific Officer and you are advised that, based on the submitted documentation (email correspondence), it does not need NHS ethical review under the terms of the Governance Arrangements for Research Ethics Committees in the UK. The advice is based on the following:

- **The project is an audit using only data obtained as part of usual care, but note the requirement for Caldicott Guardian approval for the use or transfer of person-identifiable information within or from an organisation**

If this project is being conducted within NHS Lothian you should inform the relevant local Quality Improvement Team(s).

This letter should not be interpreted as giving a form of ethical approval or any endorsement of the project, but it may be provided to a journal or other body as evidence that ethical approval is not required under NHS research governance arrangements. However, if you, your sponsor/funder or any NHS organisation feels that the project should be managed as research and/or that ethical review by a NHS REC is essential, please write setting out your reasons and we will be pleased to consider further. Where NHS organisations have clarified that a project is not to be managed as research, the Research Governance Framework states that it should not be presented as research within the NHS.

You should retain a copy of this letter with your project file as evidence that you have sought advice from the South East Scotland Research Ethics Service.

Yours sincerely,

Alex Bailey  
Scientific Officer  
South East Scotland Research Ethics Service
November 2006

The "Ad Hoc Advisory Group on the Operation of NHS Research Ethics Committees" recommended NRES should develop guidelines to aid researchers and committees in deciding what is appropriate or inappropriate for submission to RECs, and NRES (with the Health Departments and with advice from REC members) has prepared the guidelines in the form of the attached table.

<table>
<thead>
<tr>
<th>RESEARCH</th>
<th>CLINICAL AUDIT</th>
<th>SERVICE EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The attempt to derive generalisable new knowledge including studies that aim to generate hypotheses as well as studies that aim to test them.</td>
<td>Designed and conducted to produce information to inform delivery of best care.</td>
<td>Designed and conducted solely to define or judge current care.</td>
</tr>
<tr>
<td>Quantitative research – designed to test a hypothesis. Qualitative research – identifies/explores themes following established methodology.</td>
<td>Designed to answer the question: “Does this service reach a predetermined standard?”</td>
<td>Designed to answer the question: “What standard does this service achieve?”</td>
</tr>
<tr>
<td>Addresses clearly defined questions, aims and objectives.</td>
<td>Measures against a standard.</td>
<td>Measures current service without reference to a standard.</td>
</tr>
<tr>
<td>Quantitative research - may involve evaluating or comparing interventions, particularly new ones. Qualitative research – usually involves studying how interventions and relationships are experienced.</td>
<td>Involves an intervention in use ONLY. (The choice of treatment is that of the clinician and patient according to guidance, professional standards and/or patient preference.)</td>
<td>Involves an intervention in use ONLY. (The choice of treatment is that of the clinician and patient according to guidance, professional standards and/or patient preference.)</td>
</tr>
<tr>
<td>Usually involves collecting data that are additional to those for routine care but may include data collected routinely. May involve treatments, samples or investigations additional to routine care.</td>
<td>Usually involves analysis of existing data but may include administration of simple interview or questionnaire.</td>
<td>Usually involves analysis of existing data but may include administration of simple interview or questionnaire.</td>
</tr>
<tr>
<td>Quantitative research - study design may involve allocating patients to intervention groups. Qualitative research uses a clearly defined sampling framework underpinned by conceptual or theoretical justifications.</td>
<td>No allocation to intervention groups: the health care professional and patient have chosen intervention before clinical audit.</td>
<td>No allocation to intervention groups: the health care professional and patient have chosen intervention before service evaluation.</td>
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<tr>
<td>May involve randomisation</td>
<td>No randomisation</td>
<td>No randomisation</td>
</tr>
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</table>

**ALTHOUGH ANY OF THESE THREE MAY RAISE ETHICAL ISSUES, UNDER CURRENT GUIDANCE:-**

| RESEARCH REQUIRES R.E.C. REVIEW | AUDIT DOES NOT REQUIRE R.E.C. REVIEW | SERVICE EVALUATION DOES NOT REQUIRE R.E.C. REVIEW |
APPENDIX 9

NHS CALDICOTT APPROVAL
hello 
thanks for your email below with additional information.
It has been reviewed by my colleague, Jim Sherval, and he has advised that this Caldicott Application (11145) can now be classed as complete/closed. Just to confirm then you have formal approval from the Caldicott Guardian, Dr Alison McCallum

many thanks, fiona
Fiona Boyle
(PA to Jim Sherval and Aileen Muir)
Lothian NHS
Directorate of Public Health and Health Policy
Waverly Gate
2-4 Waterloo Place
EDINBURGH, EH1 3EG

Telephone 0131 465 5453
Fax 0131 465 5494

From: Judge, Joseph
Sent: 10 October 2011 10:05
To: Guardian, Caldicott
Cc: Darjee, Rajan
Subject: FW: Caldicott Application 11145

Dear Fiona

1. Copy of the research ethics letter is attached. Offenders are mainly referred from within the Lothian health board area, although there are a small number who live in the Borders area (as they have been referred by Lothian and Borders Police) and a smaller number still who have been referred from the Scottish Prison Service. The final intention is to use the data available for all of these individuals as these have already been collected for clinical purposes.

2. The data are currently stored on an Excel spreadsheet which is not anonymised. Data will be transferred to a SPSS datasheet for statistical analysis with identifying information removed (Name, address, date of birth etc). Participants will be allocated a number at this point. The original referrers of the offenders will be sent a secure email asking them for feedback on the assessment. The name of the offender will be provided (found in Excel spreadsheet) so that it is clear to the referrer which assessment is being asked about. In terms of further deidentification processes, we are not interested in the individual responses and it will not be necessary to identify either the offender or the referrer. The responses will simply be collated with identifying information removed and a framework analysis performed. The identity of the offender or referrer is not relevant at this point.

3. The physical security of the research area is sufficient. The same area is currently used to store data relating to MAPPA (Multi Agency Public Protection Arrangements) patients and is located within the office space of a Medium Secure Forensic Psychiatric Unit. Data will not be removed from this facility.

I have also added the comments of Dr Rajee, who leads the service.

Hi Joe

Points to emphasize:
This clinical data is used by the service (which includes you) and stored in accordance with MAPPA standards. Physical data is in a locked cabinet in a locked room, within a medium secure unit. Electronic data is stored like other clinical data, but only SOLS staff have access to the files. No named data will move outwith these physical or electronic arrangements. The spreadsheet is maintained for audit and evaluation purposes, is kept with the electronic patient documents (in a secure folder).

All data will be anonymised when used to generate research databases and when analyzed / reported.

No personal information on cases will be provided to referrers beyond the data they provided to us initially when they referred the case.

All data will be on cases referred to the NHS Lothian Sex Offender Liaison Service and is therefore NHS Lothian's information. Cases are referred from other areas, but are NHS Lothian's patients wrt the assessments undertaken.

You could add my bullets to your response.

Raj

Dr Rajan Darjee
Consultant Forensic Psychiatrist, NHS Lothian
Clinical Lead for MAPPA/Sexual Offenders, NHS Scotland Forensic Network

The Orchard Clinic
Royal Edinburgh Hospital
Morningside Terrace
Edinburgh EH10 5HF

Tel 0131 537 5866
Fax 0131 537 5857
Email rajan.darjee@nhslothian.scot.nhs.uk

Regards

Joe

Joe Judge
Trainee Clinical Psychologist

Forensic Service (Mo, Th) - 0131 537 5830
Child Service (Tu, We) - 01506 523614
APPENDIX 10

UNIVERSITY ETHICAL APPROVAL
-----Original Message-----
From: sorourke@staffmail.ed.ac.uk [mailto:sorourke@staffmail.ed.ac.uk]
Sent: 21 July 2011 19:35
To: KELLY Evelyn
Cc: Judge, Joseph; O'ROURKE Suzanne
Subject: Re: Joe Judge - Thesis Ethics Application - 07.06.11

Hi Joe,

I've reviewed your form and as your level 1 checklist is okay am happy to approve it. However, as the dbase you will be using contains patient identifiable information you will need to obtain cauldicott approval. I think you may have already done this? Either way if you could forward an approval from your local cauldicott guardian, email is sufficient, to Evelyn please for her records then you're good to go ahead.

All the best
Suzanne

Quoting KELLY Evelyn <Evelyn.A.Kelly@ed.ac.uk> on Wed, 20 Jul 2011 15:14:47 +0100:

> Hi Joe
> As you know I had passed your TP to Mick for methodology review and sent you the feedback from him on the 16th June....but I should have sent it to Suzanne also for her to review as you can see I've copied her into our correspondence now. I'm sorry if I've slowed the process down for you...the system is a bit new to me!!
> Bye for now
> Evelyn
> Evelyn Kelly
> Programme Administrator
> Doctorate in Clinical Psychology
> School of Health in Social Science
> Medical School
> Teviot Place
> Edinburgh
> EH8 9AG
> Tel: 0131 651 3972
> Fax: 0131 651 3971
> -----Original Message-----
> From: Judge, Joseph [mailto:Joseph.Judge@nhslothian.scot.nhs.uk]
> Sent: 20 July 2011 12:04
> To: KELLY Evelyn
> Subject: FW: Joe Judge - Thesis Ethics Application - 07.06.11
>
APPENDIX 11
CROSSTABULATIONS OF VARIABLES
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### MAPPA X Sexual Preoccupation

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### MAPPA X Problems with Intimate Relationships

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APPENDIX 12

COVERING LETTER
Dear Referrer Name

RE: Joe Bloggs, (DOB: 01.01.1970), 123 Main Street, Somewhere, POSTCODE

You may remember that you referred the above named to the NHS Lothian Sex Offender Liaison Service (SOLS) in Month YEAR.

I am a Specialist Psychological Practitioner currently completing doctoral training in Clinical Psychology. As part of my research thesis I am undertaking service evaluation research with the SOLS. One aim of this research is to assess the usefulness of SOLS risk assessments to referrers. I understand that you may have already received a letter which asked how helpful the SOLS risk assessment was to you. The present study is in addition to this and this time we are keen to find out how the risk assessment informed the actual management of the offender. Your responses will be anonymous but they will be used to inform the future work of the SOLS. I hope that you can find the time to complete the questionnaire so that the work of the SOLS can be refined to best meet the needs of referrers.

The questionnaire can be completed electronically and sent to my secure email address, j.judge@nhs.net. Alternatively, it can be returned by mail to the address above. The closing date for responses is 1st April 2012.

Thank you for your time.

Yours sincerely

Joe Judge
Specialist Psychological Practitioner
Since 2007 the NHS Lothian Sex Offender Liaison Service (SOLS) has been offering an assessment service for sex offenders being managed by criminal justice agencies. We are conducting research and are keen to find out how the risk assessment affected the actual management of the offender whom you referred. Responses are anonymous but will be used to inform the future work of the SOLS so that assessments meet the needs of referrers.

Did the SOLS risk assessment change or inform the management of the offender?

How did the SOLS risk assessment change or inform the management of the offender?

*Risk management planning*

*Monitoring of the offender*

*Supervision of the offender*

*Treatment of the offender*

*Victim safety planning*

If the SOLS assessment did not change or inform the management of the offender can you say why? (Resources, timing of report, external circumstances might be some of the things you might consider)