

EXPLORING SEXUAL KNOWLEDGE AND RISK IN THE ASSESSMENT
AND TREATMENT OF ADOLESCENT MALES WITH INTELLECTUAL
DEVELOPMENTAL DISORDERS WHO DISPLAY HARMFUL SEXUAL
BEHAVIOUR.

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Abstract

The aim of the current thesis was to explore sexual knowledge and risk in the assessment and treatment of adolescent males with intellectual developmental disorders (IDD), who display harmful sexual behaviour (HSB). A variety of methods were used in this undertaking, including a systematic review, a single case study, a critique of a psychometric measure and two empirical studies. The findings of the systematic review indicated that although the identified/assessed risk variables related to recidivism were found to be similar in cases and controls, some were found to be more prevalent for sexual offenders with IDD. However, it was difficult to draw any firm conclusions due to inconsistencies in findings and limitations in the methodological quality of included studies.

The case study detailed the assessment and treatment of an adolescent male with limited cognitive ability and a history of harmful sexual behaviour. The assessment highlighted the utility of the integrated theories of sexual offending, and how his adverse early life experiences and developmental trauma disorder may have negatively impacted on his attachments, social and self-regulation skills, low-self-esteem and the development of his harmful sexual behaviour. The post-intervention assessment highlighted the client had made some positive shifts within his identified treatment targets, although there was still room for improvement with regards to his level of socio-sexual knowledge, his ability to self-regulate

and his tendency to engage in aggressive and rule-breaking behaviours.

In the critique of the Knowledge Test and Quick Quiz components of the Assessment of Sexual Knowledge –ASK (Butler, Leighton & Galea, 2003) the Knowledge Test measure demonstrated some good psychometric properties and had undergone extensive research and robust testing with individuals with IDD during its development. However, weaknesses of the measure considered were its lack of normative data, the ambiguous wording of some items, and limited empirical research regarding the tool’s effectiveness in measuring sexual knowledge across different populations of individuals with IDD. The empirical research consisted of two studies. In the first study a questionnaire adapted from the Knowledge Test of the Assessment of Sexual Knowledge – ASK, was tested for its ability to accurately measure sexual knowledge in adolescent males with and without IDD and their counterparts who display harmful sexual behaviour. Tests examining both the reliability and validity of the adapted measure suggested its psychometric properties were promising. The second study sought to explore whether there were differences in sexual knowledge in adolescents with and without IDD and their counterparts who display harmful sexual behaviour (HSB). Significant differences were observed between groups. In the HSB groups, adolescents with IDD experienced significantly higher rates of sexual victimisation than No IDD adolescents. For those with IDD the HSB group were 12 times more likely to view sexually

explicit material than the Non HSB group. The findings suggested that a lack of sexual knowledge might not be a contributory factor in why some young people with IDD go on to display harmful sexual behaviour.

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Chapter 1.

Introduction

The counterfeit deviance theory (CDH) (Griffiths, Hingsburger, Hoath and Ioannou; 2013; Hingsburger, Griffiths & Quinsey, 1991) appears useful in explaining how developmental, environmental and systemic factors might influence individuals with IDD to offend sexually. This theory attempts to explain how sexually inappropriate behaviours might have developed in a sub-group of offenders with intellectual developmental disorders. Although the CDH was not developed to explain harmful sexual behaviour in adolescents specifically, its various hypotheses are just as applicable to this population.

For clarity, the term Harmful sexual behaviour referred to throughout the current thesis is defined as:

“Sexual behaviours expressed by children and young people under the age of 18 years old that are developmentally inappropriate, may be harmful towards self or others and/or be abusive towards another child, young person or adult”. (Hackett, Holmes & Branigan, 2016, p.12).

Although there have been some attempts to explore the lack of sexual knowledge and risk of sexual offending in adult sexual offenders with IDD (Lunsky, Frijters, Griffiths, Watson & Williston, 2007; Michie, Lindsay, Martin & Grieve, 2006; Talbot & Langdon, 2006), the findings offer little support for CDH as those adult sex offenders with IDD show no significant differences for sexual knowledge in comparison to (sex offenders without IDD) and controls (non- sex offenders with IDD).

To date there are no known studies which have explicitly explored sexual knowledge and its relationship to risk in adolescents with IDD who have displayed harmful sexual behaviour in comparison to those who have not. Therefore, without empirical studies exploring this relationship, our understanding of sexual knowledge and how this might clinically inform assessment and treatment in adolescents with IDD and harmful sexual behaviour remains limited and based on studies with adults.

Defining Intellectual Developmental Disorder - IDD

It is important to first define the term intellectual development disorder or IDD. The term IDD is a more recent embodiment and is as a result of the recent revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) where the term mental retardation was officially replaced by 'intellectual disability (intellectual development disorder)'. The term intellectual disability is the equivalent of intellectual development disorder, which has

been adopted by the draft ICD-11. The new term IDD refers to a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains (DSM-5, 2013). According to the DSM-5 to meet the requirements of a diagnosis of IDD the following three criteria must be met:

1. Deficits in intellectual functioning, which includes various cognitive abilities, such as reasoning, problem-solving, planning, abstract thinking, judgment, academic learning, and experiential learning, measured by both clinical assessment and standardised intelligence testing. A score of approximately two standard deviations or more below the average (of people of the same age and culture) indicates a significant cognitive deficit. This is usually an IQ score of approximately 70 or below.
2. Deficits or impairments in adaptive functioning that result in failure to meet developmental and socio-cultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities needed for daily living, such as, communication, effective social interaction and participation, personal independence at home and in the community and the ability to conform to the social standards at work or school and to learn new knowledge, skills, and abilities.

3. Onset of intellectual and adaptive deficits during the developmental period. This means the individuals problems with intellectual or adaptive functioning were evident during childhood or adolescence.

The DSM-5 stresses the need to use both standardised testing of intelligence and clinical assessment when diagnosing IDD, with the severity of impairment (Mild, Moderate, severe, or profound) based on adaptive functioning rather than IQ test scores alone.

For the purposes of the current thesis the definition of intellectual development disorder or IDD will be used when referring to individuals with mental retardation, intellectual disabilities or developmental delay.

The current research presented in this thesis attempts to address the lack of empirical research on sexual knowledge and adolescent males who display harmful sexual behaviour and how intellectual developmental disorders (IDD) impact on this relationship.

Chapter one provides a general introduction to the thesis and justification for the research thesis. Chapter two presents a systematic review, exploring risk factors in sexual offenders with intellectual developmental disorders (IDD). The review begins by outlining the risk-need-responsivity model – RNR (Andrews & Bonta, 2010) of sexual offender treatment. Whether sexual offenders with IDD have risk factors that are unique to them is discussed,

highlighting that current knowledge regarding risk factors associated with sexual offending has been mainly gleaned from studies using offender samples without IDD. Findings from some of the relatively few studies exploring the risk factors in sexual offenders with IDD are presented before introducing the aims of the systematic review. The inclusion and exclusion criteria of studies, scoping exercise and search strategy are then explained prior to an examination of the search results. Following a quality assessment of included studies, a qualitative synthesis of the data is presented before a discussion of the main findings. Finally, the overall quality of the included studies is discussed prior to the reviews conclusions and recommendations for future research.

Chapter three presents a case study of the assessment and treatment of an adolescent male with limited cognitive ability, who has displayed harmful sexual behaviour. The case study begins with an introduction to the client, which outlines his referral details, diagnosis, psychosocial background information and forensic history. The main theories on the aetiology of sexual offending and sexually harmful behaviour are then considered. Firstly, Marshall and Barbaree's (1990) integrated theory of sexual offending, which takes a developmental approach, associating early life experiences (e.g. abuse and neglect) with sexual offending is presented. Next, the integrated theory of sexual offending proposed by Ward and Beech (2006), which also takes a developmental approach, is outlined. The assessment process and findings are then presented

along with a detailed psychological formulation and identified treatment needs. Details on the client's engagement in treatment are discussed. Finally, the client's post-treatment assessment results are presented which suggested positive change had been achieved across some the client's treatment targets. Outcomes in relation to the integrated theories of sexual offending and counterfeit deviance hypotheses are discussed along with the limitations of the assessment process and future recommendations concerning treatment provision.

Chapter four presents a critique of the Knowledge Test and Quick Quiz components of the Assessment of Sexual Knowledge –ASK (Butler, Leighton, & Galea, 2003) psychometric tool, which was used in the case study during the assessment process, and then adapted for use within the empirical research. It examines the tools development in relation to existing measures and evaluates the outcome of tests of reliability and validity. The scoring of the measure and the interpretation of results are presented before a discussion highlighting both the strengths and weakness of the measure.

Chapter Five and Six details the empirical research which is divided into two studies. The first study (Chapter 5) evaluated an adapted sexual knowledge measure for its ability to measure sexual knowledge in adolescent populations with and without IDD. The research includes the relevant literature and theories (e.g. the

Counterfeit Deviance Hypotheses), the methodologies and the analysis of data using a quantitative approach. Outcomes are discussed with reference to the current evidence base, along with limitations and implications for future research.

In Chapter Six, the second study explored whether sexual knowledge was related to harmful sexual behaviour in adolescent males with and without IDD.

Sexual knowledge in adolescents and its relationship to harmful sexual behavior was explored using the following comparisons:

- 1) Sexual knowledge in adolescents with IDD (Group A = Yes IDD/No HSB) compared to adolescents without IDD (Group C=No IDD/No HSB) with no evidence of harmful sexual behaviour in either group. If there is support for CDH; group A would show less sexual knowledge than group C.
- 2) Sexual knowledge in adolescents with IDD (Group B =Yes IDD/Yes HSB) compared to adolescents without IDD (Group D = No IDD/Yes HSB) who have been identified and referred for harmful sexual behaviour in both groups. If there is support for CDH; group B would show less sexual knowledge than group D.
- 3) Sexual knowledge in adolescents with IDD with an absence of harmful sexual behaviour (Group A = Yes IDD/No HSB) compared to adolescents with IDD who display harmful sexual

behaviour (Group B = Yes IDD/Yes HSB). If there is support for CDH; group A would show more sexual knowledge than group B (sexual knowledge as a protective factor).

4) Sexual knowledge in adolescents without IDD and with an absence of harmful sexual behaviour (Group C = No IDD/No HSB) compared to adolescents without IDD who do display harmful sexual behaviour (Group D = No IDD/Yes HSB). If there is support for CDH; then group C would show more sexual knowledge than group D (sexual knowledge as a protective factor). Table 1.1. provides a summary of the sample groupings.

Table 1.1. Sample Groups

		IDD	
		Yes	NO
HSB	No	Group A	Group C
	Yes	Group B	Group D

Chapter Seven presents a general discussion of the findings and conclusions from each chapter.

Chapter 2.

Exploring Risk Factors for Male Sex Offenders with Intellectual Developmental Disorders: A Systematic Review

Abstract

With a paucity of risk factor research on adolescent sex offenders with intellectual developmental disorders (IDD), this systematic review explores risk factors found in male sex offenders aged 8 to 99 years with IDD compared to other male populations. Studies were selected following a search of nine electronic databases, grey literature and hand searches. Ten experts were also contacted to obtain relevant studies. The search yielded 2886 references, of these 2094 publications were considered irrelevant, 707 were duplicates, 69 did not meet the inclusion criteria and 2 were unavailable. In total, 2872 studies were excluded leaving 14 publications containing 15 studies meeting the inclusion criteria. These 14 publications were quality assessed using pre-defined criteria prior to data extraction and synthesis.

The results indicated that sexual offenders with IDD were more likely to have both male and female victims, younger victims and a history of abuse victimisation compared to their non-IDD counterparts. Adolescent sexual offenders with IDD were more likely to present with social skills deficits and social problems in the clinical range than non-IDD sex offenders. Adult sexual offenders

with IDD were more likely to have; a history of less serious violent offences, deviant sexual preferences for pre-pubertal male children and poorer parental and social relationships than their counterparts without IDD. They were also more likely to hold more offence supportive attitudes and beliefs and have higher levels of sexual knowledge compared to other adult males with IDD. The implications for research and practice are discussed.

Introduction

One of the most influential models in the sex offender treatment field to emerge in recent years is the risk-need-responsivity model - RNR (Andrews & Bonta, 2010). The *risk* principle posits that the most effective interventions with offenders are those that are matched to the offender's level of risk. The *need* principal proposes that interventions should be crafted so they target an offenders' criminogenic needs, i.e. those dynamic risk factors strongly correlated with recidivism, which can come or go, but are amenable to change, and if treated effectively can therefore reduce that individuals' probability of re-offending sexually in the future (Hanson, Bourgon, Helmus & Hodgson, 2009). Finally, the *responsivity* principle suggests that once an individual's level of risk and dynamic risk factors have been identified, interventions, if they are to be effective, should then be matched to the learning style of the individual, and should consider both the external factors (e.g. the therapists characteristics) and the internal characteristics of the offender which might impact upon their potential to benefit from the intervention (Looman, Dickie & Abracen, 2005).

Many studies on sexual offenders with and without intellectual developmental disorders (IDD) have focused on the prevalence of IDD in sexual offending populations (Lindsay, 2002), and whether such populations are at an increased risk of re-offending (Courtney & Rose, 2004; Craig & Hutchinson, 2007).

There are far fewer studies seeking to establish whether static and dynamic risk factors involved in sexual offending are similar across IDD and non-IDD sexual offender populations, or whether sexual offenders with IDD have criminogenic needs that are unique to them. Static risk factors refer to those features of the offenders' history that predict recidivism but are not amenable to change but are useful when evaluating long term risk. These include, prior offences, age and a lack of a long term relationship. Dynamic risk factors refer to those features that are more amendable to change, such as negative peer associations and cognitive distortions (Craig, Browne, Stringer & Beech, 2004, 2005).

Current knowledge regarding risk factors associated with Sexual offending has mainly been gleaned from studies using non-IDD offender samples. In the relatively few studies that have attempted to explore variables related to risk in IDD offender populations, outcomes have indicated that there is a great deal of overlap with those identified in mainstream offenders (Harris & Tough, 2004; Lindsay, Elliot & Austell, 2004). However, the literature to date suggests there are some important differences (Day, 1993, 1994; Griffiths, Hingsburger, Hoath & Ioannou, 2013; Lindsay, 2002).

In their study monitoring 15 static and 35 dynamic variables over a 12-month period in a sample of 52 adult male sexual offenders with IDD, Lindsay et al. (2004) found a number of these variables to significantly correlate with re-offending, and to contribute to a

predictive model. These were, low self-esteem, anti-social attitude, attitudes tolerant of sexual crimes, low treatment motivation, deteriorating treatment compliance and allowances made by staff. The dynamic variables observed to be the most significant predictors were denial of crime, anti-social attitude, deteriorating treatment compliance and allowances made by staff. Static predictors were offences involving violence, poor relationship with mother, sexual abuse in childhood. The authors found that dynamic variables tended to be better predictors of sexual recidivism in individuals with IDD than static ones. Other dynamic variables such as criminal lifestyle, antisocial peers, social/emotional isolation and mental illness were found not to be related to recidivism in this sample.

These findings were consistent with those of MacMillan, Hastings, and Coldwell (2004). In this study, the authors followed up 124 forensic patients with IDD for six months. They found that history of violence predicted future violence in this population.

Quinsey, Book, and Skilling (2004) found similar results in a sample of 58 men with IDD who had a history of serious antisocial behaviours. Seventy percent of the sample had documented incidents and arrests for various sex offences, with the vast majority of these being 'hands-on'. On transfer to community settings, the men were followed up for 16 months. The authors found that previous inappropriate and anti-social behaviours significantly predicted future inappropriate violent or sexual behaviour and anti-

social behaviours against carers and peers within the supported community settings. However, from the study's design, it is possible that bias may have affected the variables of interest. The authors reported employing four different raters to collect baseline data on the history of inappropriate and anti-social behaviours from participant case files. Where information was found to be insufficient, these raters sought to collect the missing data via staff interviews. Therefore, bias may have been introduced due to differences in individual interpretations of the observed behaviour and severity of reported incidents. The same could also be said of the follow-up data collected using incident reports from the various community settings, suggesting that measurement bias may have influenced the variables of interest in this study.

Another factor often cited as being related to the risk of offending and recidivism in males with IDD is impulsivity. In their study comparing 19 sex offenders with 23 non-sexual offenders, Glaser & Deane (1999) found very few differences between the two cohorts, suggesting impulsivity was not specific to sexual offending for individuals with IDD. A later study by Parry and Lindsay (2003) did not support these findings.

In their study examining levels of trait impulsiveness in sexual offenders, non-offenders and non-sexual offenders with mild IDD, Parry and Lindsay (2003) found significant differences in impulsiveness between sexual offenders and non-sexual offenders.

Using an adapted version of the Barratt Impulsiveness Scale – BIS (Barratt, 1959) the authors found that compared to the other types of offenders the sex offenders reported lower levels of impulsiveness. However, as acknowledged by the authors, there was no literature suggesting that the BIS could be used with individuals with IDD, which may have affected the validity of their results. Also, their observations suggested that there may be sub-groups of sexual offenders with IDD who may display higher levels of state impulsivity and that this should be considered during the assessment and treatment process. Although not conclusive, Lindsay (2004) took these findings to suggest there was little evidence that sex offenders with IDD were more impulsive in their offending compared to other offending populations.

Several studies have suggested that adult sexual offenders with IDD are more likely to offend across gender categories (Griffiths Hingsburger & Christian, 1985; Rice, Harris, Lang & Chaplin, 2008), and to show low specificity for victim age (Day, 1994; Rice et al., 2008), than their non-IDD counterparts. They have been shown to have a greater tendency to have victims who are male children and younger children (Blanchard, Watson, & Choy, 1999; Brown & Stein, 1997). Similar findings have also been observed for adolescent sex offenders with IDD and have been found to be less discriminating in their choice of victim, assaulting those who are available in terms of proximity and vulnerability, and are therefore less likely to use planning in their offending (O’Callaghan, 1999;

Langevin & Curnoe, 2008). As with adult sexual offenders, adolescent sex offenders have also been found to be less discriminating in regard to the age and sex of their victims (Tudiver, Broekstra, Josselyn & Barbaree, 1998), suggesting that both adults and adolescent sexual offenders with IDD are more impulsive and opportunistic when committing their offences (Thompson & Brown, 1997). The victims of adolescent sex offenders with IDD tend to be younger rather than peer aged (Fyson, 2007), which is thought to be linked to social skills deficits limiting these adolescent's ability to effectively interact with others close to their own age and having a tendency to over-identify with children, as a result of their own developmental immaturity (Craig, 2010) and may lack the cognitive ability to express sexuality in an appropriate way.

The Counterfeit Deviance Hypothesis (Griffiths, Hingsburger, Hoath and Ioannou, 2013; Hingsburger, Griffiths and Quinsey, 1991). proposes that a primary reason for sexual offending in both adults and adolescents with IDD are, lack of sexual knowledge and sexual naivety, poor social skills, and limited opportunity for sexual exploration, as opposed to deviant sexual interests (deviant - sexual interests that are considered aberrant and therefore differ from what is considered as 'normal' by society, e.g. paedophilia, fetishism, masochism, voyeurism, incest, sadism, etc.). However, to date no known studies exploring the counterfeit deviance hypothesis with adolescents has been undertaken. Those that have

explored this idea in adult sex offenders with IDD have found the support for this hypothesis to be lacking (Talbot & Langdon, 2006).

Some authors have suggested that there appears to be a tendency to provide little or no sex and relationships education about sexuality, consent, appropriate touch and the legal aspects of sexual behaviour (O'Callaghan & Murphy, 2007), or to provide opportunities for young people with IDD to discuss and express their sexuality (Browne & McManus, 2010; Murphy, 2003). Parents of adolescents with IDD may struggle to discuss sexual concepts in a meaningful way that is accessible to the young person. Family members may infantilise them or fail to recognise their need for sexual expression. This absence of accurate information on sexual matters has both short and long term affects with regards to the individual's knowledge of sexuality, appropriate personal boundaries, and what society constitutes as acceptable sexual behaviour (Fyson, 2007). Therefore, individuals with IDD may be more at risk of committing sexual offences unknowingly (Browne & McManus, 2010). This would suggest therefore that risk assessments aimed at measuring risk factors in sex offenders with IDD should be sure to ascertain whether the individuals sexual offending is due to poor social skills and inadequate sexual knowledge, or due to true sexual deviance.

Findings from several studies exploring the abuse histories of offenders have indicated that adult and adolescent sex offenders

with IDD are more likely to have been victims of childhood physical, sexual, and emotional abuse than their counterparts without IDD, (Fyson, 2007; Hayes, 1999; Lindsay, 2002; Lindsay, Law, Quinn, Smart & Smith, 2001; Lindsay, Steptoe & Haunt; 2011; Nankervis, Hudson, Smith & Phillips, 2000). Similar findings have also been observed for adolescent sex offender populations. It is thought these negative sexual experiences, with a limited understanding that such behaviour is illegal, a lack of opportunity for appropriate sexual expression; their over-identification with children, as a result of their own developmental immaturity may all be factors that lead individuals with IDD to sexually abuse others (Thompson & Brown, 1997). Individuals with IDD have also been found to have a greater external locus of control and less able to keep in control their sexual urges than their non-IDD counterparts (Rose, Jenkins, O'Connor, Jones & Felce, 2002).

Thus, to date many interventions offered to sexual offenders with IDD have been developed to target those risk factors associated with offenders without IDD; and many assessment tools used to evaluate risk factors in sexual offenders with IDD, have also been adapted from measures used and often standardised on non-IDD offending populations (Harris & Tough, 2004). If practitioners are to be responsive to both the ideographic and nomothetic treatment needs of sexual offenders with IDD, it may be important to first establish whether there are potential differences in the characteristics of sexual offenders with IDD. This in turn may lead

to the development of more accurate assessment tools and a more tailored and effective treatment provision. However, the evidence that sexual offenders with IDD have unique risk factors is inconclusive.

To date there has been some attempt to develop specific tools to measure offence specific variables and to predict future recidivism in adolescent sex offenders (Gerhold, Browne and Becket, 2007). Unfortunately, Gerhold et al. (2007), excluded papers on adolescent sex offenders with disabilities in their review of risk factors associated with recidivism. This area of research is still very much in its infancy even for adult sexual offenders with IDD (Boer, Haaven, Lambrick, Lindsay, McVilly, Sakdalan & Frize, 2012; Lindsay, Whitefield & Carson, 2007; Taylor, Novaco, Guinan & Street, 2004). Hence, there is a need to identify what research has been carried out examining risk factors in sexual offenders with IDD.

Certain risk factors (e.g. mental illness) associated with sex offences may have a relatively high prevalence in non-offending populations and therefore perform badly in terms of predictive accuracy in assessing the risk for sexual offending. Such risk factors may identify a high number of false positives. Therefore, it was felt important to compare and contrast the characteristics of offender and non-offender samples with and without IDD to determine differences between these groups and identify risk factors that would show high predictive accuracy. This method of identifying individuals that are

high risk for offending follows a public health approach applied to parents at risk of child maltreatment (e.g. Browne and Herbert, 1997, pg. 120; Browne & Jackson 2013, pg. 449).

Aims and Objectives

The aim of this review was to identify, quality assess and synthesis the findings of empirical research studies which explored risk factors in sex offenders with IDD compared to a suitable comparison/control group. A scoping exercise on five databases (SCOPUS, MEDLINE, PsycINFO, CENTRAL and Campbell) revealed only two relevant studies on adolescent sex offenders with IDD and a small number of studies on adult sexual offenders with IDD. With a paucity of risk factor research on adolescent sex offenders with intellectual developmental disorders (IDD), this systematic review explores risk factors found in all male sex offenders aged 8 to 99 years with IDD compared to other male populations. The following review question was identified:

What risk factors are commonly seen in male sex offenders with IDD (Exposure Group) and can these risk factors discriminate this group from other male populations i.e.; (a) sex-offenders without IDD – Comparison 1 (b) non-sexual offenders with IDD – Comparison 2 and (c) non-offenders with IDD - Controls 1 (d) non-offenders without IDD - Controls 2.

Method

Search Strategy – Sources of literature

The search was limited to papers published from 1980 onwards as much of research into the risk factors associated with sex offenders began to develop after this time. The following electronic databases and gateways were comprehensively searched for relevant research studies in July 2016:

a) Electronic Bibliographic Databases:

OVID: PsycINFO (1980-week 1 to July week 3 2016)

OVID: MEDLINE (1980-week 1 to July week 3 2016)

OVID: EMBASE (1980 week 1 to July week 30 2016)

PROQUEST: National Criminal Justice Reference Service (NCJRS)
Abstracts (1950 – 2016)

PROQUEST: Applied Social Sciences Index and Abstracts (ASSIA)
(1980 to 2016)

PROQUEST: International Bibliography of the Social Sciences
(IBSS) (1980 to 2016)

Web of Science (Science citation index expanded (SCI-Expanded
1980 to 2016).

b) Gateways:

Cochrane Central (1980 to 2016)

Campbell Collaboration Library (1980 to 2016)

c) Three main sources of grey literature were searched:

- Home Office Research and Statistics website

(www.homeoffice.gov.uk/science-research/research-statistics/)

- PROQUEST: Dissertation/thesis portal (N. America source)
- Google Scholar

Ten field experts were contacted to obtain any relevant information/unpublished literature about any current and on-going research meeting the inclusion criteria. These individuals were:

- Professor Anthony Beech, University of Birmingham, UK.
- Professor Douglas Boer, University of Canberra, Australia.
- Professor Liam Craig, University of Birmingham, UK.
- Dr Jackie Craissati, Oxleas NHS, UK.
- Professor Dorothy Griffiths, Brock University, Canada.
- Dr Peter Langdon, University of East Anglia, UK.
- Frank Lambrick, Department of Health and Human Services, Victoria, Australia.
- Professor William Lindsay, Danshell Group, UK.
- Professor Glynis Murphy, University of Kent, UK.
- Professor John Taylor, Northumbria University, UK.

One unpublished systematic review (Gray, Chou, Browne & Wilcox, 2012) was identified through hand searching. The reference list was searched and considered in line with the inclusion/exclusion criteria.

Search Strategy: Search Terms

The following is a guide to the search terms applied to the electronic databases (modified to meet the requirements of each), an example of the search strategy used for OVID PsycINFO, MEDLINE and EMBASE is provided in Appendix 1):

(sex offender/harmful sexual behaviour/paedophilia/rape/
paraphilia)

AND

(learning disability/intellectual disability/IQ/special needs/cognitive
ability/mentally retarded)

AND

(risk assessment/risk management/prediction/risk factor/
characteristic)

Study selection

In the first instance the titles and abstracts of studies were screened with reference to the inclusion/exclusion criteria. This was done using a pre-defined inclusion/exclusion form (see Appendix 2). Only those studies meeting all the inclusion criteria were selected to go through to the quality assessment and review stage.

Inclusion and Exclusion Criteria

Traditionally, inclusion and exclusion Criteria in systematic reviews are expressed as a PICO which refers to: Population; Intervention, Comparator(s); and Outcome(s). Where the systematic review is

exploratory and without intervention, the convention is to refer to 'Exposure' to a given genetic or environmental factor(s) – PECO.

Participants: Males aged 8 to 99 years. In Scotland, young people who offend are held to be criminally responsible from 8 years of age (the lowest age of criminal responsibility in high income countries). So as not to exclude any relevant studies from Scotland the lower age limit was 8 years.

Exposure: Either convicted of a sexual offence or with a history of sexually offensive behaviour, identified as having IDD (participants with a learning disability defined as IQ <70, which may also include participants with borderline learning disability, IQ between 71 and 80).

Comparators: (a) sexual offenders without IDD, (b) non-sexual offenders with IDD, (c) non-offenders with IDD, (d) non-offenders without IDD.

Outcome: Risk factor characteristic(s) associated with sex offenders which may discriminate between the exposed group and comparator/control groups.

Study Type: RCT, Case Control or Cohort.

To assist with the inclusion of all relevant research and to avoid publication bias, no limits were set on language. Studies looking solely at female offenders were excluded as research suggests that there are several differences between male and female sex offenders (Gannon, Hoare, Rose & Parrett, 2012; Gannon, Rose & Ward, 2010; Kubik, Hecker & Righthand, 2002, Miccio-Fonseca, 2000). Studies meeting the inclusion criteria including female sex offenders but where data on male sex offenders was reported separately were considered for inclusion. Pre-and post studies, case studies, narrative reviews, opinion papers, editorials and commentaries and cross-sectional studies were excluded from this review.

Quality Assessment

Those studies meeting the inclusion criteria were quality assessed and reviewed for their risk of bias by the primary researcher. This was done using a pre-defined quality assessment form (see Appendix 3) adapted from a checklist from the Critical Appraisal Skills Programme (CASP, 2016). This form evaluated areas such as whether cases and controls were representative of a defined population; whether the method(s) used to identify/assess risk factors had been standardised on an IDD population, attrition rates and whether the statistical tests used were appropriate. Items were scored 2 where the criterion was fully met, 1 where it was partially met and 0 where the criterion was not met. Low scores indicated a high risk of bias. So as not to undervalue the quality of the study

the assessor could also rate an item unclear or inconclusive from the information provided in the article.

A second reviewer (a Forensic Psychology Doctoral student) independently assessed the quality of 5 of the 14 selected studies to aid the consistency of the assessment process and to check inter-rater reliability. An intra-class correlation coefficient (ICC) of 0.95 (single measures) was achieved between the two assessors. According to Cicchetti and Sparrow (1981) ICC values of 0.75 and over are considered to represent excellent agreement amongst rater's.

Data Extraction

A pre-defined data extraction form was used to extract data from the included studies prior to synthesis (Appendix 4). This included items relating to case and control group sample size, demographic data, statistical analysis and outcomes, providing a concise overview of the study.

Results

Description of Studies

References yielded from the search of electronic bibliographic databases and gateways ($n=2874$) were exported into Endnote. A total of 707 duplicates were removed and 10 further studies were identified through grey literature searches, and 2 studies added from a hand search of the Journal of Intellectual Disabilities. A total of 2094 publications were irrelevant to the review question and therefore excluded. The remaining 85 publications were examined to see if they met the inclusion criteria and a further 69 studies were excluded.

Two unpublished dissertations were unallocated as they were inaccessible in the timeframe. Of the 85 papers 71 were excluded (see Appendix 5 for a list of reasons for exclusion). A total of 14 publications were considered to meet the inclusion criteria (containing 15 studies) and these were quality assessed and data synthesised (see Figure. 2.1. for search strategy and selection process).

Characteristics of the Included Studies

The general characteristics of the included 14 publications are summarised in Table 2.1. This can be summarised as follows;
Exposure Group of sex offenders with IDD; $n=15$ studies.
Comparison Group (a) sex offenders without IDD; $n=4$ studies.

ASSIA	197
PsycINFO	766
MEDLINE	526
EMBASE	877
Web of Science	64
IBSS	44
PROQUEST (NCJRS)	396
Cochrane Library	4
Total Hits:	2874

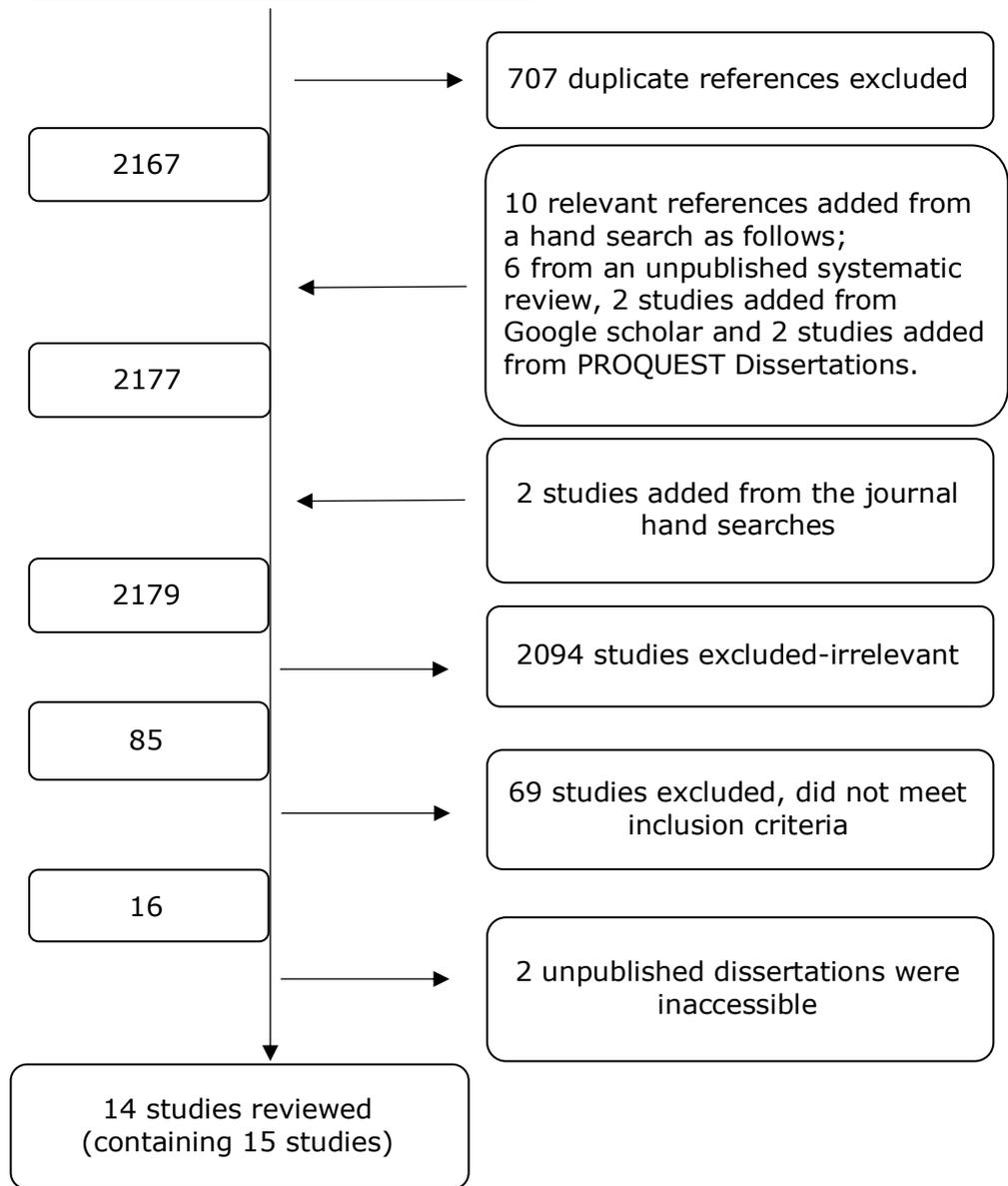


Figure. 2.1. Systematic Review Search strategy

Table 2.1. Characteristics of Included Studies

Study	Location	Study Design	Total Number of Participants	Comparison Group(s)	Age Range of Participants	Risk Factor (s) Identified/Assessed
Broxholme and Lindsay (2003)	UK	Case Control	72	Non-Sex Offenders with IDD	18-61	Offence Supportive Beliefs/Attitudes
Chung (2002)	USA	Case Control	37	Males with no history of Sexually aggressive behaviour with IDD (unclear if offenders or Non-offenders)	19-71	Impulsivity Poor problem-solving skills Hostility
Fortune and Lambie (2004)	New Zealand	Case Control	155	Sex Offenders without IDD	12-18	Victim of Abuse Past Criminal History Socio-Affective Functioning
Gilby, Wolf and Goldberg (1989)	Canada	Case Control	30	Sex Offenders without IDD And Non-offenders with IDD	Not Reported (Adolescents)	Sexual Preferences Poor Family Background Victim of abuse Past Criminal History Socio-Affective Functioning
Gillis, De Luca, Hume, Morton and Rennpferd (1998)	USA	Case Control	22	Non-Offenders with IDD	19-45	Socio-Affective Functioning Hostility
Hayes (2009)	Australia	Case Control	40	Sex Offenders without IDD	18+	Poor Family Background Victim of Abuse Interpersonal Aggression
Langdon and Talbot (2006)	UK	Case Control	41	Non-Offenders with IDD	18+	Offence Supportive Beliefs/Attitudes

Table 2.1. Characteristics of Included Studies Cont.

Study	Location	Study Design	Total Number of Participants	Comparison Group(s)	Age Range of Participants	Risk Factor (s) Identified/Assessed
Lindsay, Whitefield and Carson (2007)	UK	Case Control	136	Non-Sex Offenders with IDD And Non-Offenders with IDD	18-60	Offence Supportive Beliefs/Attitudes
Michie, Lindsay, Martin and Grieve (2006)	UK	Case Control	68 (2 studies)	Non-Offenders with IDD	18+	Lack of Sexual Knowledge
Nardis (1994)	USA	Case Control	36	Non-Sex Offenders with IDD And Non-Offenders with IDD	22-47	Lack of Sexual Knowledge Socio-Affective Functioning Impulsivity Resistance to rules/authority figures Interpersonal Aggression
Parry and Lindsay (2003)	UK	Case Control	41	Non-Sex Offenders with IDD And Non-Offenders with IDD	18+	Impulsivity
Rice, Harris, Lang and Chaplin (2008)	Canada	Case Control	138	Sex Offenders without IDD	18+	Sexual Preferences Past Criminal History Deviant Sexual Interests
Steptoe, Lindsay, Forest and Power (2006)	UK	Case Control	56	Non-Offenders with IDD	18+	Socio-Affective Functioning
Van den Bogaard, Embregts, Hendriks and Heestermans (2013)	Netherlands	Case Control	69	Non-Sex Offenders with IDD	21-75	Impulsivity Resistance to rules/authority figures Interpersonal Aggression

Comparison Group (b) non-sex offenders with IDD; n=5 studies.

Control Group (c) non-offenders with IDD; n=9 studies.

Control Group (d) non-offenders without IDD; n=0 studies.

The total number of participants considered in this review is 874, 367 sexual offenders with IDD, 230 sexual offenders without IDD and 277 non-sexual/non-offenders with IDD. With all studies treated as independent studies. Mean age data was not reported in two studies (Gilby, Wolf & Goldberg, 1989; Gillis, De Luca, Hume, Morton & Rennpferd, 1998); two studies provided an overall mean age for participants across groups (Hayes, 2009; Parry & Lindsay, 2003) and one study (Fortune & Lambie, 2004) reported the mean age just for the experimental group but reported the overall age range as being in keeping with the inclusion criteria. Excluding these studies, the mean age for the experimental groups was 34.10 years, for the sexual offenders without IDD 29.70 years, and for the non-sexual/non-offenders with IDD 30.96 years. The youngest participant was 12 years of age, and oldest unknown (due to the inconsistency of studies reporting age range). Mean IQ data was not reported in three studies (Gilby et al., 1989; van den Bogaard, Embregts, Hendriks & Heestermans, 2013; Fortune & Lambie, 2004). But participants in these studies fell within the borderline to moderate learning disability range). Participants in both the experimental and comparison groups were recruited from various residential, community and secure settings. Gillis et al. (1998) did not provide any details of the recruitment procedure for their

comparison group. The countries where participants were sampled from were Australia (1 study), Canada (2 studies), Netherlands (1 study), New Zealand (1 study), UK (6 studies) and USA (3 studies). Sex offender types varied across studies and included contact sexual offenders, e.g. child molesters, rapists, sexual assault etc., and non-contact sexual offenders including exhibitionists, Internet offenders, voyeurs etc. Some offenders had committed both contact and non-contact sexual offences. Non-sexual offenders in the comparison groups had committed various crimes including theft, physical assault, breach of the peace, vandalism, alcohol and drug related crimes etc. Participants were in various categories with regard to treatment (pre-treatment, undergoing treatment, post treatment.). One of the included papers (Michie et al., 2006) contained two studies, both evaluating the level of sexual knowledge across cases and controls.

In the final 14 studies the experimental group (sexual offenders with IDD) were compared to: sexual offenders without IDD (3 studies), non-sexual offenders with IDD (1 study), and non-offenders with IDD (3 studies). In Chung (2002) it was not clear if participants in the comparison group were non-sex offenders or non-offenders (1 study). The remaining studies compared the experimental group to more than one group of individuals with IDD sexual offenders without IDD and non-offenders with IDD (1 study) and, non-sexual offenders with IDD and non-offenders with IDD (4 studies). In addition, comparisons were also made between two experimental

groups (one post-treatment and one pre-treatment) and a group of non-offenders with IDD (1 study). Two studies also included a comparison group of non-offenders without IDD (Broxholme & Lindsay, 2003; Lindsay, Whitefield & Carson, 2007) these participants fell outside of the inclusion criteria and were therefore omitted from the data synthesis.

The 14 studies included in this review explored the following risk factors across cases and controls:

Static factors

- Victim Type (e.g. victims age & sex)
- Poor family background
- Victim of abuse
- Past criminal history (non-sexual offences and delinquent behaviour).

Dynamic factors

- Deviant sexual interests
- Lack of sexual knowledge
- Socio-affective functioning, including:
 - Relationships,
 - Intimacy and social skills deficits
 - Anger problems
 - Self-esteem.
- Impulsivity
- Poor problem-solving skills

- Resistance to rules /authority figures
- Hostility and interpersonal aggression
- Offence supportive beliefs and attitudes.

The number of studies exploring each risk factor is presented in Figure 2.2. Several studies also assessed and reported on characteristics falling outside the inclusion criteria of this review, these were omitted from the data synthesis.

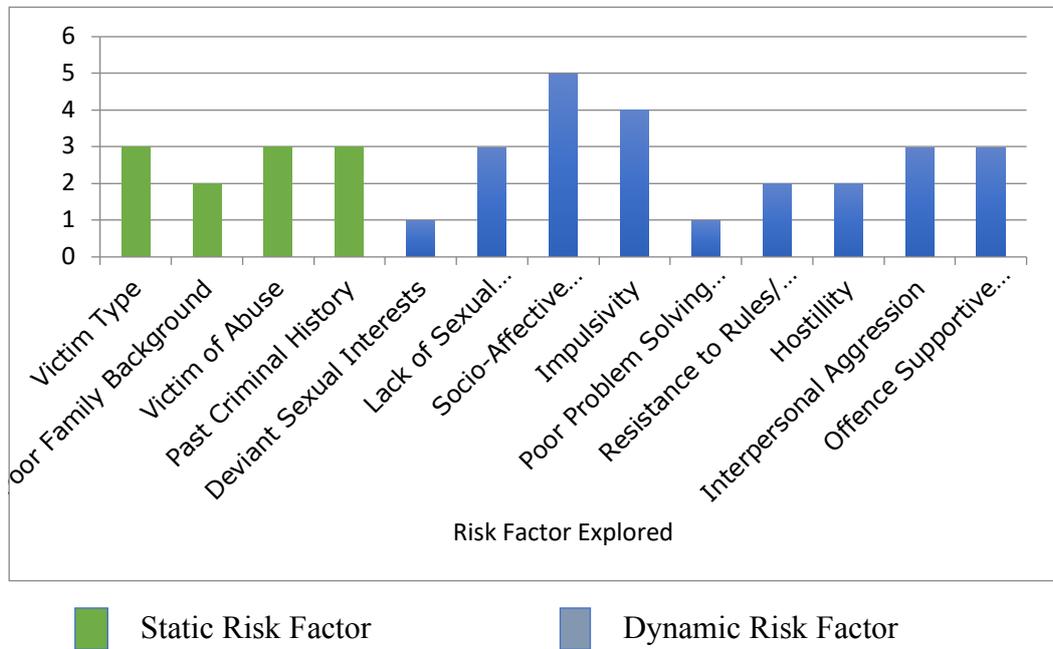


Figure 2.2. Risk Factors Explored in studies.

Quality of Included Studies

All the included studies employed a case-control design. The author did not identify any RCT or cohort studies, which met the inclusion criteria of the current review. All the studies were judged by the author to have a degree of bias in them, but so as not to introduce bias, none of the studies were omitted from the review based on their quality assessment.

A scoring system was applied during the quality assessment (see Quality Assessment Sheet in Appendix 3). Items under each bias domain were scored 2 where the criterion was fully met, 1 where it was partially met and 0 where the criterion was either not met or unclear. Where an item was judged as 'not applicable' to the study being assessed, it was scored 2 so as not artificially increase the study's risk of bias on that domain. Item scores were then totalled to give an overall risk of bias score for each domain (i.e., Selection, Measurement, Attrition, and Statistical). Risk of Bias scores ranged from 0-high to 14-low (median = 7) on both the Selection and Measurement bias domains, and from 0-high to 12-low (median = 6) on the Statistical domain, and 0-high to 6-low (median = 3) on the Attrition domain. High scores indicated a low risk of bias, in that most of the criterion for that domain had been met. Scores around the median indicated the criterion for that domain had been partially met, or the risk of bias was unclear. A low score on a domain indicated a high risk of bias. The maximum overall quality assessment score a study could achieve was 46. Figure 2.3. provides the review authors

judgement of the overall risk of bias (Low, Unclear and High) for the 14 included studies by domain.

Tables detailing the quality assessment ratings and risk of bias for individual studies by item and domain are presented in Appendices 6 and 7.

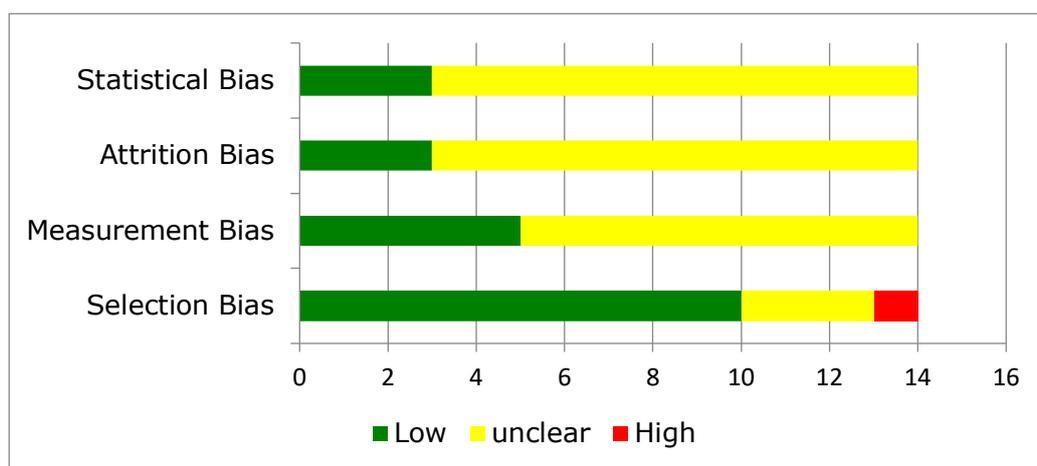
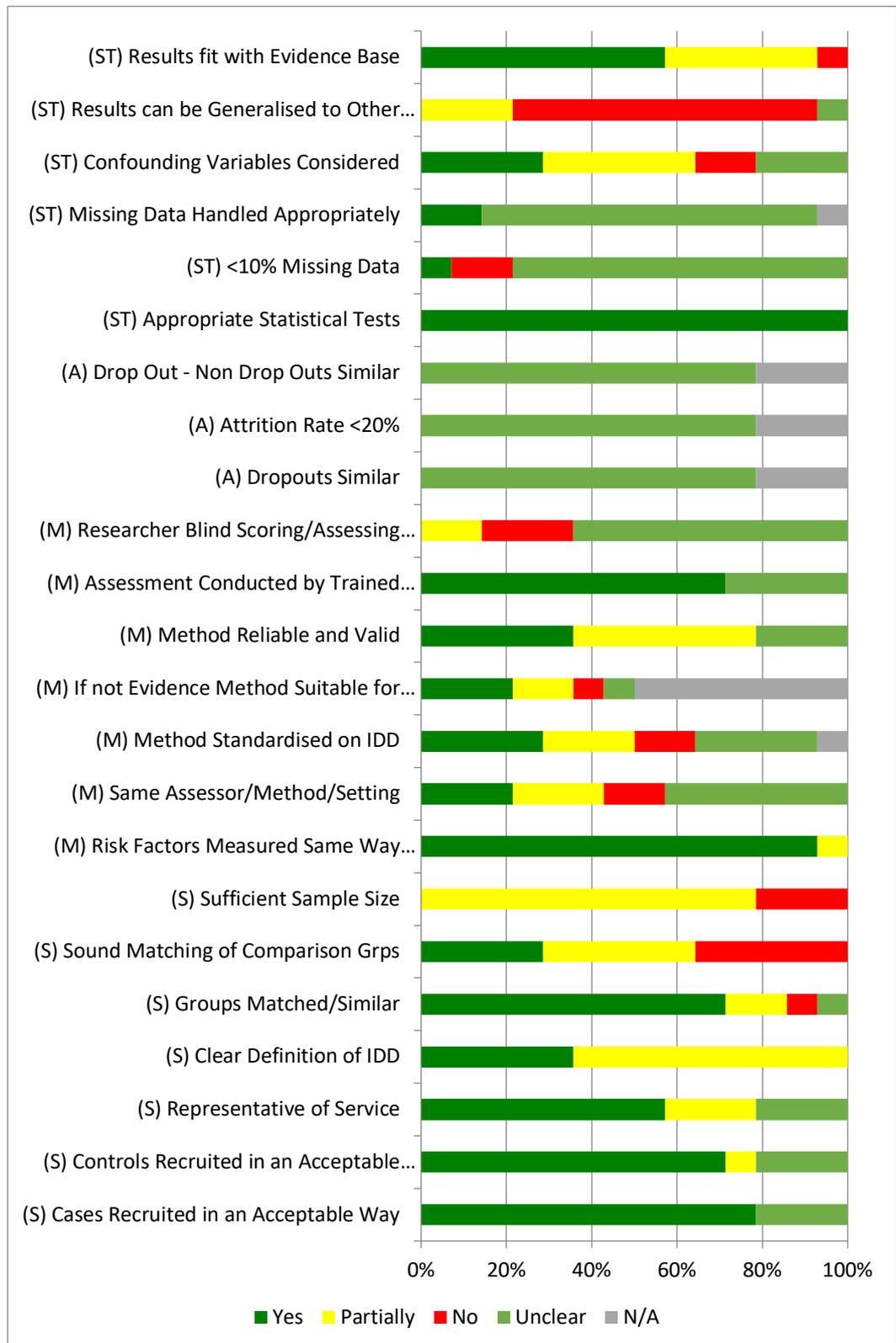


Figure 2.3. Overall Risk of Bias for Included Studies by Domain

Figure 2.4. demonstrates that the lowest risk of bias across studies was within the selection domain with 10 out of 14 (71.4%) studies achieving a low risk rating in this domain. The remaining 4 studies were either rated as high risk (1 study) or unclear (3 studies). Five studies (35.7%) were rated as being low for measurement bias, with the remaining 9 being rated as unclear as not enough information could be extracted from these studies to effectively rate the risk of bias. Overall 78.6% of items on both the attrition and statistical domains were rated as unclear. Again, the lack of information available to extract related to items on both these domains made it difficult to arrive at a conclusive rating.



S = Sampling/Selection Bias Domain, M = Measurement/Detection Bias Domain, A = Attrition Bias Domain, ST = Statistical Bias Domain

Figure 2.4. Overall Risk of Bias for Included Studies by Item and Domain

Figure 2.4. provides a detailed breakdown of each of the items assessed within each domain of bias. A strength, not included in Figure 2.4, but worth noting is that each of the studies included in this review clearly defined the aims of the research and which characteristics were being identified/assessed.

Selection Bias

The relative overall low rating of risk on the selection bias domain appears to be due to cases (78.6%) and controls (71.4 %) being recruited in an acceptable way; being matched or similar at baseline (e.g. on confounding variables such as age, sex, IQ, types of offences, setting) (71.4%); and cases and controls being representative of a defined population (57.1%).

Sufficient Sample sized used was either rated as 'partially evidenced' (78.6%) or 'No' (21.4%) for all the included studies. Apart from Chung (2002) all studies omitted to include a power calculation (although in one study, Parry & Lindsay, 2003, samples were collapsed to increase the power when making comparisons across groups). The sample sizes of cases and controls varied greatly across studies, from 10 to 131, with most studies using small and uneven samples for both the cases and controls. Small sample sizes can make it difficult to detect differences between groups (increasing the chances of a type II error), make it difficult to draw conclusions and to generalise findings to larger populations.

The lack of information on the selection and description of participants in three studies (Chung, 2002; Gillis et al., 1998; Gilby et al., 1989) meant it was difficult to assess their risk of bias within this domain resulting in an overall rating of unclear. Across several studies, it was not always clear how participants came to be referred to services, i.e. whether they were there on a voluntarily or mandatory basis. This may have affected their motivation to engage in assessments and/or research affecting the accuracy of results.

Measurement Bias

The quality assessment of measurement bias highlighted some strengths across the included studies. In most studies, the authors were consistent in their measuring of risk factors across groups (92.9%). In 10 of 14 studies (71.4%) reported a suitably trained person carried out the assessment of risk factors. However, few studies reported on whether the method of assessment had been carried out by the same assessor in the same setting (21.4%), had been standardised on populations with IDD (28.5%), were reliable and valid (35.7%), and were suitable for use with an IDD population (28.5%). Two studies (21.4%) provided partial evidence that the researcher had been blind to the participant group when assessing/scoring measures.

Another source of measurement bias may have been the geographical location of the study and differences in legal practices

and jurisdictions. Differences in the rates of prosecution, conviction and the practice of plea bargaining in some of the countries included in this review, where sexual charges might be negotiated to lesser or non-sexual charges may have resulted in an underestimate of the rates, types and severity of these participants' offences.

Attrition Bias

Attrition bias was not applicable for three studies (Fortune & Lambie, 2004; Gilby et al., 1989; Van den Bogaard et al., 2013) due to participants being selected based on a review of case file information. For the remaining 11 studies, the lack of available information on dropout rates, characteristics etc., made it difficult to rate the individual items within this domain. Therefore, it is not clear how attrition may have led to systematic differences between cases and controls. The measurement of attrition is important as it can impact on the frequency and significance of the risk factor(s) being measured and may artificially effect any observed between group differences.

Statistical Bias

All the studies in the current review were quality assessed as low risk of bias when applying appropriate statistical tests (although other important information such as whether assumptions of data has been explored prior to the application of statistical tests was not always evident). Overall one study (Gillis et al., 1998) was assessed as having an acceptable rate/low risk of missing data,

reporting that all data was complete. Two studies (Michie, Lindsay, Martin & Grieve, 2006; Steptoe, Lindsay, Murphy & Young, 2006) were assessed as having a low risk of bias due to the appropriate handling of missing data. More positively 64.2% of studies were considered as being of low or partial risk to the impact of confounding variables, having considered these in the design/analysis. Most the studies in this review had matched cases and controls on important demographic variables, such as age, level of IQ, increasing the degree to which any observed differences between groups can be attributed to the variables of interest, rather than differences in age and level of functioning. Although in three studies (Chung 2002; Lindsay, Whitefield & Carson, 2007 & van den Bogaard 2013), the levels of homogeneity between cases and controls were less clear.

Overall none of the included studies were rated as low risk across all four domains of risk. Just one paper (van den Bogaard et al., 2013) was rated low risk of bias across three domains. Six studies were rated low risk of bias across two domains and six studies rated as low risk of bias in one domain. Overall due to the quality of reporting across studies the risk of bias was difficult to rate conclusively resulting in many studies having two or more domains of risk which were unclear.

Qualitative Data Synthesis

Due to the relatively small number of studies included in this review and the range of outcome measures used across studies, a narrative synthesis of the data is presented. In the following section, each heading represents an assessed/identified risk factor, or a set of risk factors thematically related, identified across studies. A summary of the extracted data for each study is given in Table 2.2.

Static Factors

Victim Type (e.g. victims age & gender)

By examining demographic and offence data contained in participant's case/police files, three studies sought to compare Victim Type amongst cases and controls. Two studies (Gilby et al., 1989 & Fortune et al., 2004) compared victim type for adolescent cases and controls. One study (Rice et al., 2008) compared victim type across adult cases and controls.

Comparison Group a) Sexual Offenders Without IDD

Adolescents

Gilby et al. (1989) found that most offenders in both the cases and controls had committed a paedophile offence and had committed sexual offences from more than one category. Their overall findings indicated that the adolescent sexual offenders with IDD were significantly more likely to sexually assault a peer or an adult than their non-IDD counterparts, ($p < .05$). Fortune et al. (2004) also found several similarities in victim type between cases and controls.

Table 2.2. Data Extracted from Included Studies

Static Risk Factors

Victim Type

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure (s)	Finding (s)
Rice et al. (2008)	<p>69 adult male SOs with IDD referred to a Canadian phallometric laboratory for assessment of sexual preferences, following criminal charges or allegations of sexual contact with a child younger than 14 (and at least 5 years younger than ppt), or with non-consenting adult.</p> <p>Mean IQ: 59.4 (SD 9.67) Assessment method not reported. (No IQ data was available for 31 ppts) Approximated range: 30-75</p> <p>Mean Age: 33.2 (SD 11.7) Range: Not reported but adult suggests 18+</p>	<p>69 adult male SOs without IDD referred to the same laboratory for assessment of sexual preferences, following sexual contact with a child etc.). Ppts were selected alphabetically if IQ known to be higher than 79.</p> <p>Mean IQ: 102 (SD 11.3) Assessment method not reported. Range: Not reported</p> <p>Mean Age: 29.7 (SD 11.6) Range: Not reported but adult suggests 18+</p>	<p>Offence data obtained from police files, documentary material in clinical records. Variables of interest were victims age and sex.</p>	<p>SOs with IDD significantly more likely to have a victim younger than 13 ($p < .001$), a male victim younger than 13 ($p < .001$), a victim younger than 5 ($p < .001$) a female ($p < .05$) and a male ($p < .001$) victim younger than 5.</p> <p>SOs with IDD significantly more likely to have a male victim older than 12 ($p < .001$) and a male victim generally ($p < .001$).</p> <p>SOs with IDD significantly less likely to have a female victim ($p < .001$), a female victim aged 13 or over ($p < .05$) and any victim aged 13 or older ($p < .05$).</p>

Victim Type Cont.

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Gilby et al. (1989)	<p>10 adolescent male SOs with IDD referred to a specialist Canadian assessment and treatment centre for children and adolescents exhibiting a variety of problems (e.g. developmental delay, learning difficulties, behavioural and psychiatric problems). Offences included courtship disorders, sexual assault and paedophilic offences.</p> <p><i>Mean IQ and age not reported for experimental or control group, but states ppts in the IDD groups were in the mild to moderate learning disability range. Assessment method for IQ not reported.</i></p> <p><i>All ppts were adolescents.</i></p>	<p>10 adolescent male SOs without IDD referred to the same specialist Canadian assessment and treatment centre as the experimental group. Offences for the SO group included courtship disorders, sexual assault and paedophilic offences.</p>	<p>The comparison of offender characteristics and offence data (types of offences) obtained from ppts case files.</p> <p>Variables of interest included:</p> <ul style="list-style-type: none"> • Type of sexual offence • Multiple categories of sexual offence • First/repeated offences • Victim(s) sex • Victim(s) type (e.g. child, peer or adult) • Victim(s) known 	<p>SOs with IDD were significantly more likely than SOs without IDD to sexually assault a peer or adult ($p < .05$).</p> <p>No other significant differences were observed between the two groups.</p>

Victim Type Cont.

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Fortune et al. (2004)	<p>24 adolescent male SOs with IDD referred to a New Zealand community specialist sex offender treatment facility offering a treatment programme for individuals with IDD. Sexual offences included voyeurism, indecent exposure, genital touching, oral sex and rape.</p> <p><i>Mean IQ not reported for both the experimental or control group.</i></p> <p>Assessment method: WISC-III referred to as the countries standard assessment measure to test for IDD.</p> <p>Range: Not reported but states ppts accepted onto the 'special needs' treatment programme had an IQ in the borderline range with the lower limit being between 60-65.</p> <p>Mean Age: 14.8 (SD 1.18) Range: 13-17</p>	<p>131 adolescent male SOs without IDD referred to the standard treatment programme at the same community treatment facility. Sexual offences included voyeurism, indecent exposure, genital touching, oral sex and rape.</p> <p>IQ Range: Not reported</p> <p>Mean Age: Not reported. Reported as not significantly different to experimental group. Range: 12-18</p>	<p>A participant information sheet (PIS) developed specifically for the study to record socio-demographic variables and offending behaviour data from official client files (i.e. victim(s) gender was a variable of interest).</p>	<p>There was a significant difference in the gender of victims between the two groups ($\chi^2 (3, 155) = 12.197$, $p < .001$). SOs with IDD were more likely than SOs without IDD to victimise both males and females and less likely to victimise only females.</p>

Poor Family Background

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Gilby et al. (1989)	<p>10 adolescent male SOs with IDD</p> <p><i>Mean IQ and age not reported for experimental or control group, but states pts in the IDD groups were in the mild to moderate learning disability range. Assessment method for IQ not reported.</i></p> <p><i>All pts were adolescents.</i></p>	<p>10 adolescent male SOs without IDD</p> <p>And 10 adolescent male Non-offenders with IDD also referred to the same specialist Canadian assessment and treatment centre as the experimental group. Ppts in this group had the following behaviour problems: conduct, oppositional, adolescent adjustment and/or schizoid disorders.</p> <p><i>Non-offenders with IDD</i> Mean IQ and age were not reported but stated group members were in the borderline to high average range and were adolescents.</p> <p>Assessment method for IQ not reported.</p>	<p>Historical data obtained from ppts case file. Variables of interest were parental marital breakup, young person's separation from their family, family violence and family conflict were obtained from ppts case files.</p>	<p>No significant differences were observed between the three groups.</p>
Hayes (2009)	<p>20 adult male SOs with IDD referred by their legal counsel to a community forensic psychology clinic for an assessment on the basis they had committed an offence.</p> <p>Mean IQ: (VABS) 50 and (K-BIT) 55 Range: Not Reported</p> <p>Mean Age: Not reported separately. Mean age of experimental and control group was 35, range 18-52.</p>	<p>20 adult male SOs without IDD referred to the same forensic service due to their offending behaviour.</p> <p>Mean IQ: (VABS) 77 and (K-BIT) 85 Range: Not Reported.</p>	<p>Data related to History of family conflict (verbal) and family violence observed collected via a semi-structured interview, and a review of police fact sheets and other legal documents.</p>	<p>No significant differences were observed between groups.</p>

Victim of Abuse

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Gilby et al. (1989)	10 adolescent male SOs with IDD	10 adolescent male SOs without IDD and 10 adolescent male Non- offenders with IDD	The comparison of historic data obtained from ppts case files. Variables of interest included a reported history of physical and/or sexual abuse.	No significant differences in were observed between the three groups.
Fortune et al. (2004)	24 adolescent male SOs with IDD	131 adolescent male SOs without IDD	A participant information sheet (PIS) developed specifically for the study to record socio- demographic variables and offending behaviour data from official client files. Sexual abuse history was examined and a yes or no response was recorded.	SOs with IDD were significantly less likely to have a history free from instances of reported sexual abuse, ($\chi^2 (1, 155) = 6.77, p < .010$), significantly less likely to have a history free from physical abuse ($\chi^2 (1, 155) = 6.55, p < .05$) and significantly more likely to have reports of neglect in their files ($\chi^2 (2, 155) = 14.16, p < .010$), and more likely to have reports of emotional abuse ($\chi^2 (2, 155) = 10.24, p < .010$).
Hayes (2009)	20 adult male SOs with IDD	20 adult male SOs without IDD	Previous victim of sexual and/or physical abuse data was collected via a semi-structured interview. Police fact sheets and other legal documents were also reviewed.	SOs with IDD were significantly more likely to have been a victim of physical abuse during childhood ($p < .05$).

Past criminal history (e.g. Non-sexual offending and delinquent behaviour)

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Gilby et al. (1989)	10 adolescent male SOs with IDD	10 adolescent male SOs without IDD and 10 adolescent male Non- offenders with IDD	The comparison of offender characteristics and offence data obtained from ppts case files. Variables of interest included: <ul style="list-style-type: none">• Other Delinquent Behaviour (theft, truancy, fire-setting)	SOs with IDD and Non- offenders with IDD were significantly less likely to have exhibited other delinquent behaviour than the SOs without IDD ($p < .05$).
Fortune et al. (2004)	24 adolescent male SOs with IDD	131 male adolescent SOs without IDD	Socio-demographic variables and offending behaviour data obtained from official client files. Prior delinquent behaviours and non-sexual offences were recorded.	No significant differences were observed between the two groups.
Rice et al. (2008)	69 adult male SOs with IDD	69 adult male SOs without IDD	Offence data obtained from police files, documentary material in clinical records.	SOs with IDD had significantly less serious non-sexual violent offence histories, ($p < .001$). No significant differences were observed between groups on total number of violent offences.

Dynamic Risk Factors

Deviant Sexual Interests

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Rice et al. (2008)	69 adult male SOs with IDD	69 adult male SOs without IDD	Response to aural and visual stimuli on penile plethysmograph. Each ppt received from one to four tests of sexual preference. For the assessment of child molesters 5 different stimulus sets were used (over the 20-year recruitment period). A 6 th stimulus set was used for the assessment of ppts who assaulted pubertal or post-pubertal victims.	<p>Set 1 – SOs with IDD had significantly more deviant age preferences ($p < .05$), had greater relative preference for prepubertal boys ($p < .01$), greater relative preference for prepubertal girls ($p < .05$), a greater relative preference for boys younger than 5 ($p < .05$), and a greater relative preference for girls younger than 5 ($p < .05$).</p> <p>Sets 1-4 SOs with IDD had significantly more deviant age preferences ($p < .01$), had greater relative preference for prepubertal boys ($p < .01$), greater relative preference for prepubertal girls ($p < .05$), a greater relative preference for boys younger than 5 ($p < .01$), and a greater relative preference for girls younger than 5 ($p < .01$) and a greater relative preference for males ($p < .001$). Considering all stimulus sets SOs with IDD had significantly higher maximum deviance indices than the SOs without IDD ($p < .001$).</p>

Lack of Sexual Knowledge

Study	Experimental Group (population)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
<p>Michie et al. (2006)</p>	<p><u>Sample 1:</u> 17 adult male SOs with IDD recruited from a UK community service for individuals with IDD. Offences included those against adults and children. Mean IQ: 66.70 (SD 7.1) Range: Not reported Assessment method not reported Mean Age: 34.7yrs (SD 4.9) Range: Not reported (authors confirmed ppts were 18+ years) <u>Sample 2:</u> 16 adult male sexual offenders with IDD recruited from a UK community service for challenging behaviour (different jurisdiction to study 1). Offences included those against adults and children. Mean IQ: 66.8 (SD 6.01) Range: Not reported Assessment method not reported Mean Age: 34.2yrs (SD 5.8) Range: Not reported (authors confirmed ppts were 18+ years).</p>	<p>20 adult male non-offenders with IDD recruited from the same community service. Mean IQ: 63.71 (SD 7.8) Range: Not reported Assessment method not reported Mean Age: 33.4yrs (SD 4.7) Range: Not reported (authors confirmed ppts were 18+ years) 15 adult male non-offenders with IDD recruited from the same service. Mean IQ: 66.04 (SD 5.9) Range: Not reported Assessment method not reported Mean Age: 30.8yrs (SD 5.2) Range: Not reported (authors confirmed ppts were 18yrs+ years).</p>	<p>Scores on the Socio-Sexual Knowledge and Attitudes Assessment Tool – SSKAAT; Wish, McCombs and Edmondson, 1980). A self-report measure comprising of 13 sub-scales: <i>Anatomy, Menstruation, Dating, Marriage, Intimacy, Intercourse, Pregnancy, Birth Control, Masturbation, Sexually Transmitted Disease, Homosexuality and Alcohol and Risks.</i></p> <p>Scores on SSKAAT (as above), excluding the <i>marriage</i> and <i>pregnancy sub-scales.</i></p>	<p>SOs with IDD scored significantly higher than the Non-offenders with IDD on 3 of the 13 knowledge subscales: Birth Control $t(35) = 2.33, p < .05$ Masturbation $t(35) = 2.62, p < .05$ Sexually Transmitted Disease $t(35) = 2.13, p < .05$</p> <p>SOs with IDD scored significantly higher than the Non-offenders with IDD on 7 of 11 subscales: Anatomy $t(29) = 2.34, p < .05$ Menstruation $t(29) = 2.59, p < .05$ Intimacy $t(29) = 5.19, p < .01$ Intercourse $t(29) = 3.91, p < .01$ Birth control $t(29) = 2.46, p < .05$ Masturbation $t(29) = 4.37, p < .01$ Homosexuality $t(29) = 2.28, p < .05$.</p>

Lack of Sexual Knowledge Cont.

Study	Experimental Group (population) Sexual Offenders (SO's) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Nardis (1994)	<p>12 adult male SO's with IDD recruited from either a US residential forensic treatment service, or a residential forensic psychiatric unit for psychiatric disorder and IDD.</p> <p>Mean IQ: 64.83 (SD 3.88) Range: 58-68 Assessment method not reported across groups.</p> <p>Mean Age: 34.08 (SD 7.75) Range: 22-47</p>	<p>12 adult male Non-SO's with IDD recruited from either a US residential forensic treatment service, or a residential forensic psychiatric unit for psychiatric disorder and IDD. And 12 adult male Non-offenders with IDD recruited from community-based services/programmes for individuals with IDD.</p> <p><i>Non-SO's with IDD</i> Mean IQ: 62.33 (SD 4.52) Range: 56-69 Mean Age: 31.25 (SD 8.54) Range: 21-46</p> <p><i>Non-offenders with IDD</i> Mean IQ: 62.66 (SD 4.44) Range: 56-70 Mean Age: 32.83 (SD 7.87) Range: 23-47</p>	<p>Scores on the SSKAAT <i>excluding the Menstruation, Pregnancy, Birth Control, Sexually Transmitted Disease, Alcohol and Risks sub-scales.</i></p>	<p>No significant difference in scores between SO's with IDD, Non-SO's with IDD and Non-Offenders with IDD across all seven subscales.</p>

Socio-Affective Functioning

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Stephoe et al (2006)	<p>28 adult male SO's with IDD recruited from UK forensic service for individuals with IDD. Ppts had offended sexually against adults, children or both.</p> <p>Mean IQ: (WAIS – version not reported): 64.2 (SD not reported) Range: Not reported</p> <p>Mean Age: 32.7yrs (SD not reported) Range: Not reported (authors confirmed ppts were 18yrs+ across both groups)</p>	<p>28 adult male non-offenders with IDD recruited from IDD outpatient service</p> <p>Mean IQ: (WAIS): 65.8 (SD not reported) Range: Not reported</p> <p>Mean Age: 29.7yrs (SD not reported)</p>	<p>Significant Others Scale (Power, Champion & Aris, 1988); a self-report measure which asks respondents to identify up to seven important people in their life (e.g. siblings, parents, partner, best friend etc.) and rate how well they provide emotional support (actual) and then to indicate the ideal level of support they would like from these relationships.</p> <p>The self-report relationships sub-scale of the Life Experience Checklist (LEC, Ager, 1990). Aims to measure relationships in terms of making a positive addition to the individuals' life experiences. Higher scores = more positive contribution.</p>	<p>On the SOS, SOs with IDD reported significantly lower actual and ideal levels of support from their mother and father. (Mother actual $t(44) = 3.57, p < .01$; Mother ideal $t(35) = 7.81, p < .001$; Father actual $t(44) = 6.43, p < .001$; Father ideal $t(35) = 6.18, p < .001$).</p> <p>No other differences were observed between groups.</p> <p>On the relationships subscale of the LEC the SOs with IDD scored significantly lower than the non-offenders with IDD ($t(54) = 6.84, p < .001$).</p>
Gilby et al. (1989)	<p>10 adolescent male SOs with IDD</p>	<p>10 adolescent male SOs without IDD and 10 adolescent male Non-offenders with IDD</p>	<p>The comparison of offender characteristics obtained from ppts case files. Variables of interest were associated with 'Poor Social Relations'.</p>	<p>No significant differences were observed between the three groups.</p>

Socio-Affective Functioning Cont.

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Fortune et al. (2004)	24 adolescent male SOs with IDD	131 adolescent male SOs without IDD	<p>The rate of anger problems and the presence of social skills deficits were recorded on a participant information sheet (PIS) developed specifically for the study.</p> <p>The Social Problems sub-scale on the Child Behaviour Checklist (CBCL, Achenbach, 1991). Designed to assess the behavioural problems and social competence of children (4-18 years). Parents rate items as to how well they describe their child as follows: (0= not true, 1 = somewhat true, 2 = very true or often true).</p>	<p>No significant differences on rate of anger problems were observed between the two groups.</p> <p>SOs with IDD presented with significantly more social skills deficits than the SOs without IDD, ($\chi^2 (1, 155) = 5.578, p < .05$).</p> <p>SOs with IDD scored significantly higher than the SOs without IDD on the Social Problems subscale of the CBCL, ($F (1,62) = 10.74, p < .01$).</p>
Gillis et al. (1998)	<p>11 adult male SOs with IDD recruited from referrals to a US community group treatment program due to their sexual abuse of children (all had disclosed their offences to mental health professionals).</p> <p>Mean IQ: (WAIS-R): 69.92 (SD 7.37) Range: <i>Not reported separately to control group but was within the mild - moderate learning disability range for both groups.</i></p> <p>Mean Age: Not reported Range: 22-45</p>	<p>11 adult male Non-offenders with IDD (recruitment procedure not specified)</p> <p>Mean Age: Not reported Range: 19-40</p> <p>Mean IQ: (WAIS-R): 68.50 (SD 11.75)</p>	<p>Scores on the Self-Esteem Inventory (SEI; Coopersmith, 1981). A self-report measure consisting requiring a response <i>like me</i> or <i>unlike me</i>. Higher scores = higher self-esteem.</p> <p>Scores on the Modified Loneliness Questionnaire (MLQ; Asher & Wheeler, 1985). Measures respondent's evaluation of status among peers, feelings of loneliness and social inadequacy. The higher the scores the greater loneliness experienced.</p>	<p>No significant differences in levels of self-esteem or loneliness were observed between the two groups.</p>

Socio-Affective Functioning Cont.

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Nardis (1994)	12 adult male SOs with IDD	12 adult male Non-SOs with IDD and 12 adult male non-offenders with IDD	Scores on the Social Judgement Scale (Spragg, 1983); developed for individuals with mild to moderate IDD. Assesses an individual's ability to express adaptive social responses when presented with various hypothetical situations.	No significant difference in scores between the sex offenders with IDD and non- sexual offenders with IDD. No significant difference in scores between the sex offenders with IDD and non- offenders with IDD.

Impulsivity

Study	Experimental Group (population)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Nardis (1994)	Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	12 adult male Non-SOs with IDD and 12 adult male non-offenders with IDD	Scores on the <i>Impulse Control</i> subscale of the Emotional Problem Scales (Prout & Strohmmer, 1991). A self-report measure where responses are rated at either yes or no. High scores indicate high impulsivity.	No significant differences between SOs with IDD and Non-SOs with IDD. SOs with IDD and Non-SOs with IDD scored significantly higher than Non-offenders with IDD ($p < .05$).
Chung (2002)	<p>27 adult male sexually aggressive offenders, (including one sexual homicide) with IDD recruited from a US state forensic hospital and a university based outpatient clinic for treating sexual offenders with IDD, and a residential programme.</p> <p>Mean IQ: (WAIS-III): 65.85 (SD 4.91) Range: Not reported for experiment and control group, but (inclusion criteria 60-75).</p> <p>Mean Age: 28.44yrs (SD 7.50) Range: Not reported for separately for experiment and control group, but overall range was 19-71.</p>	<p>10 adult males with no history of sexually aggressive behaviour with IDD, (not clear if ppts were offenders or non-offenders), recruited from two US community and residential programmes for individuals with IDD</p> <p>Mean IQ: (WAIS-III): 64.30 (SD 3.16)</p> <p>Mean Age: 47.00 (SD 13.05)</p>	<p>Scores on the Decision-Making Questionnaire (DMQ), a two item self-report measure designed specifically for the study aimed at measuring impulsive decision-making. The DMQ was administered twice: first after the respondent had found out that the puzzle they had been constructing had been disassembled, and second, after being played an ambiguous tape recording of another (fictitious) ppt commenting positively on their progress and then hearing a crashing noise suggesting the puzzle is being disassembled. The first item asks, "Do you think you knew what happened to your puzzle?" The second item asks, "What do you think happened to your puzzle?"</p>	<p>No significant difference between the two groups on scores on either the first or second question following the first administration.</p> <p>On the second administration SOs with IDD were more significantly more likely to state they had made a decision (responding yes) to the first question in the DMQ ($\chi^2 (1, 37) = 5.39, p < .05$) and significantly more likely to respond to the second question that a purposeful act had been committed ($\chi^2 (1, 37) = 7.55, p < .05$).</p>

Impulsivity Cont.

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Parry and Lindsay (2003)	<p>22 adult male SOs with IDD recruited from a UK community forensic unit for individuals with IDD. The majority had been directed by the court to attend treatment. Sexual included sexual assault, exhibitionism and offences against children.</p> <p><i>Mean IQ and age were not reported separately across groups</i></p> <p>Overall mean IQ: 64.31 (SD 7.00) Range: Not reported but inclusion criteria was 55 to 75. Assessment method not reported.</p> <p>Overall mean age: 32.86yrs (SD 12.46) Range: Not reported (but authors confirmed ppts across groups were 18yrs+).</p>	<p>13 adult male Non-SOs with IDD recruited from the same UK forensic unit as the experimental group and 6 male non-offenders with IDD (in contact with the same forensic unit).</p>	<p>Scores on a modified version of the Barratt Impulsivity Scale 11th Edition (BIS-11; Patton, Stanford & Barratt, 1995). A self-report tool where higher scores indicate higher impulsivity.</p>	<p>Scheffe tests revealed the SOs with IDD were significantly less impulsive than non-SO's with IDD ($t = -15.91, p < .01$).</p> <p>No other differences were observed between the SOs with IDD and Non-SOs with IDD.</p> <p>When the non-SO and non-offender group was combined, the SOs with IDD were still significantly less impulsive than the combined group ($t = -9.347, df. = 1, p < .01$).</p>
Van den Bogaard et al. (2013)	<p>30 adult male SOs with IDD recruited from a residential treatment facility in the Netherlands for individuals with IDD. Sexual offences included: indecent exposure, forcing other to watch child porn, indecent assault, child and adolescent sexual abuse and rape.</p> <p>Mean IQ: (WISC-III or IV, WAIS-III or IV or GIT-II): Not reported but states 70% had mild IDD and 30% had borderline IDD)</p> <p>Mean Age: 36.96 (SD 14.6) Range: 21-75</p>	<p>39 adult male Non-SOs with IDD recruited from the same facility with a history of non-sexual offending behaviour. Offences included: traffic violations, drugs related, property offences, serious violence, and Manslaughter.</p> <p>Mean IQ: (WISC-III or IV, WAIS-III or IV or GIT-II): Not reported but states 56.4% had mild IDD and 43.6% had borderline IDD)</p> <p>Mean Age: 30.23 (SD 10.2) Range: 20-56</p>	<p>Responses on the Impulsivity Item of the Risk Inventarisation Scale of Sexual Offence Behaviour of Clients with IDD, (RISC-V, Embregts, van den Bogaard, Hendriks, Heestermans, Schuitemaker & Van Wouwe, 2010).</p>	<p>SOs with IDD were significantly less able to control their impulses compared to the Non-SOs with IDD ($t(67) = -2.54, p < .05$).</p>

Poor Problem-Solving Skills

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Chung (2002)	27 adult male sexually aggressive offenders, (including one sexual homicide) with	10 adult males with no history of sexually aggressive behaviour with IDD	Scores on an adapted version of the Social Problem-Solving Inventory – Revised (SPSI-R; D’Zurilla, Nezu & Maydeu- Olivares, 2002). A 52 item self- report measure of general social problem-solving skills. Areas assessed are, Positive Problem Orientation, Negative Problem Orientation, Avoidance Style, Impulsivity/Carelessness style and Rational Problem Solving. The latter scale consists of 4 sub-scales which are; Problem Definition and Formulation, Generation of Alternative Solutions; Decision Making and Solution Implementation and Verification.	SOs with IDD scored significantly lower on the decision making subscale of the RPS scale than the comparison group ($t(28) =$ $-3.27, p < 0.01$). No other significant differences between the two groups were observed

Resistance to Rules and Authority Figures

Study	Experimental Group (population)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Nardis (1994)	Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD) 12 adult male SOs with IDD	12 adult male Non-SOs with IDD and 12 adult male non-offenders with IDD	Results on the Conformity domain of the Adaptive Behaviour Scale Residential and Community Second Edition (ABS RC: 2, Nihira, Leland & Lambert, 1992). Items were completed by the author using documentary material contained in ppts clinical records. Items included, misbehaviour in group settings, impudent attitudes towards authority and abstinence towards rules and regulations, and general resistance to following instructions or requests.	No significant differences between the SOs with IDD and Non-SOs with IDD. SO's with IDD were significantly less likely to demonstrate conforming type behaviours than non-offenders with IDD Both the SOs with IDD and Non SOs with IDD scored significantly lower than Non-Offenders with IDD ($p < .05$).
Van den Bogaard et al. (2013)	30 adult male SOs with IDD	39 adult male Non-SOs with IDD	Responding on the 'Rule Breaking Behaviour' sub-scale of the Adult Behaviour Checklist-ABCL (Achenbach & Rescorla, 2003). Designed to investigate rule-breaking behaviour during the preceding 3 months, completed by others who know the individual well). Higher scores = more rule breaking behaviour.	SOs with IDD showed significantly less rule breaking behaviour than Non-SO's with IDD, ($t(67) = -2.677, = p < 0.01$)

Hostility

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Gillis et al (1998)	11 adult male SOs with IDD	11 adult male Non-offenders with IDD	Scores on the Buss Durkee Hostility Scale (Buss & Durkee, 1957). A self-report measure consisting of 79 statements aimed at assessing various aspects of hostility. Scores on the Hostility Towards Women Scale (Check, 1984). A self-report measure where higher scores represent increased hostility towards women.	No significant differences on observed between the two groups. SOs with IDD scored significantly higher on the Hostility towards Women Scale than Non-offenders with IDD. $F(1,20) = 11.58, p=.05$.
Chung (2002)	27 adult male sexually aggressive offenders, (including one sexual homicide) with IDD	10 adult males with no history of sexually aggressive behaviour with IDD	Scores on the Attributional Rating of Intent (ARI) scale; a 3 item self-report measure assessing the attribution of intent (e.g. hostile vs. accidental). The ARI was administered twice, the first after the respondent had found out that the puzzle they had been constructing had been disassembled, and second, after hearing an ambiguous tape recording of another (fictitious) ppt commenting positively on their progress and then hearing a crashing noise suggesting the puzzle is being disassembled.	No significant differences observed between group ratings on either the first or second administration of the ARI.

Interpersonal Aggression

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Nardis (1994)	12 adult male SOs with IDD	12 adult male Non-SOs with IDD and 12 male non-offenders with IDD	Results on the Social Behaviour domain of the Adaptive Behaviour Scale Residential and Community Second Edition (ABS RC: 2, Nihira et al., 1992). Items were completed by the author using documentary material from ppts clinical records. Items include, threats, physical violence, temper tantrums, teasing, foul language, increased frustration and disruptive behaviour.	No significant differences observed between the SOs with IDD and Non-SOs with IDD. Both the SOs with IDD and Non SOs with IDD scored significantly higher on the social behaviour domain of the ABS RC than Non-Offenders with IDD ($p < .001$).
Van den Bogaard et al. (2013)	30 adult male SOs with IDD	39 adult male Non-SOs with IDD	Responding on the 'Aggressive Behaviour' Sub-scale of the Adult Behaviour Checklist – ABCL (Achenbach & Rescorla, 2003).	No significant differences observed between the SOs with IDD and Non-SOs with IDD.
Hayes (2009)	20 adult male SOs with IDD	20 adult male SOs without IDD	Data collected via a semi- structured interview covering socio-demographic variables and offending behaviour. Police fact sheets and other legal documents were also reviewed.	SOs with IDD were more likely to be diagnosed with aggressive behaviour compared to SOs without IDD, ($\chi^2 = 4.91$, df. = 1, $p < .02$).

Offence Supportive Beliefs/Attitudes

Study	Experimental Group (population)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Broxholme and Lindsay (2003)	<p>Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)</p> <p>17 adult male SOs with IDD recruited through referrals to a UK IDD forensic service for assessment for court reports or participation in a CBT group. Offences included sexual harassment, indecent exposure, attempted rape, rape and non-violent/non-penetrative offences against children.</p> <p>Mean IQ: (WAIS-R): 65.5 (SD 8.43) Range: 51-79</p> <p>Mean Age: 37.4yrs (SD 13.5) Range: 18-61</p>	<p>19 adult male Non-SOs with IDD recruited from an adult resource centre, hospital workshops and psychology clients. 7 had previous proven or alleged non-sexual offending histories and 12 had no known history of offending.</p> <p>Mean IQ: (WAIS-R): 69.5 (SD 6.8) Range: 59-80</p> <p>Mean Age: 31.2yrs (SD 12.2) Range: 18-61</p>	<p>Scores on the Questionnaire on Attitudes Consistent with Sexual Offending (QACSO, Lindsay, unpublished); a self-report measure consisting of 6 sub-sections: <i>rape and attitudes towards women, voyeurism, exhibitionism, dating abuse, homosexual assault and paedophilia</i>. Study was part of the development/evaluation of the tool. A 92-item version was administered, 29 items were removed to improve internal consistency. Results reported on the remaining 63 items. Higher scores = more socially inappropriate responding.</p>	<p>Sexual offenders with IDD gave significantly more socially inappropriate responses on all 6 sub-sections and on the overall total score than the Non-SO's with IDD.</p> <p>Post Hoc tests using the Student-Newman-Keuls values indicated significant differences were at the .05 level ($p < .05$).</p>
Langdon and Talbot (2006)	<p>23 adult male SOs with IDD recruited from secure IDD services in the UK; 12 had received sex offender treatment and 11 had not. Offences included those against adults with and without IDD and children.</p> <p><i>Post-treatment SOs with IDD Group</i> Mean IQ (WAIS-III): 65.92 (SD 8.75) Range: Not reported</p> <p>Mean age: 32.18yrs (SD 10.73) Range: Not reported (but authors confirmed ppts across groups were 18yrs+)</p>	<p>18 adult male Non-offenders with IDD recruited from UK residential units.</p> <p>Mean IQ: (WAIS-III): 62.4 (SD 6.44) Range: Not reported</p> <p>Mean Age: 28.83yrs (SD 6.09)</p>	<p>Scores on the QACSO consisting of 63 items and 7 subsections. (During the tools development, the <i>stalking and sexual harassment</i> subscale was added).</p>	<p>The pre-treatment SOs with IDD gave significantly more socially inappropriate responses than post-treatment SOs with IDD group and the Non-offenders with IDD group on all subscales apart from voyeurism and dating abuse.</p> <p>Rape $F(2, 38) = 11.34, p \leq .001$ Exhibitionism $F(2, 38) = 3.45, p \leq .05$, Homosexual assault $F(2, 38) = 5.40, p \leq .01$, Paedophilia $F(2, 38) = 5.18, p \leq .01$</p>

Offence Supportive Beliefs/Attitudes Cont.

Study	Experimental Group (population) Sexual Offenders (SOs) with Intellectual Developmental Disorders (IDD)	Comparison Group(s)	Outcome Measure(s)	Finding(s)
Langdon and Talbot (2006) Cont.	<p><i>Pre-treatment SOs with IDD Group</i> Mean IQ: (WAIS-III): 64.57 (SD 4.61) Range: Not reported.</p> <p>Mean Age: 35.62yrs (SD 13.54)</p>			<p>Stalking/sexual harassment $F(2, 38) = 11.25, p \leq .001$ Total Score $F(2, 28) = 8.40, p \leq .001$</p> <p>No significant differences were observed between post-treatment SOs with IDD and the Non-offenders with IDD.</p>
Lindsay et al. (2007)	<p>41 adult male SOs with IDD recruited from consecutive referrals to a UK community treatment service for individuals with IDD. Offences included sexual harassment, exhibitionism, incest, sexual assault against women, homosexual assault, non-penetrative sexual assault against children.</p> <p>Mean IQ: (WAIS-R): 64.71 (SD 7.34) Range: 53-74</p> <p>Mean Age: 35.64 (SD 14.17) Range: 18-60</p>	<p>34 adult male Non-SOs with IDD and 30 male Non-offenders with IDD also recruited from consecutive referrals to the same community treatment service as the experimental group. Non-SOs offences included assault, arson, possession of knives, alcohol and drug related offences.</p> <p><i>Non-SOs with IDD</i> Mean IQ: (WAIS-R): 68.36 (SD 5.82) Range: 58-78</p> <p>Mean Age: 28.39 (SD 11.14) Range: 17-57</p> <p><i>Non-offenders with IDD</i> Mean IQ: (WAIS): 68.16 (SD 8.01) Range: Reported as 55-59 (possibly a typographical error)</p> <p>Mean Age: 32.97yrs (SD 9.26) Range: 18-49.</p>	<p>Scores on the QACSO. This study used a 108-item version divided across the 7 subscales. When tested for discriminate validity 22 items failed to discriminate between groups and were removed from the final analysis. Results were reported for the remaining 86 items. (Study also formed part of the on-going development / validation process of the QACSO tool)</p>	<p>Sexual offenders with IDD gave significantly more socially inappropriate responses than the Non-SOs with IDD and the non-offenders with IDD on all subscales. Post hocs using Tukey HSD indicated significant differences were at the $p < .05$ level.</p>

Both groups had a similar percentage of victims who were aged between 12 and 18 years, who were children younger than 12 years, children younger than 5 years and adults (aged 19 years +). However, there was a significant difference in the gender of victims between the two groups ($\chi^2(3, 155) = 12.197, p < .001$). Sexual offenders with IDD were significantly more likely than their non-IDD counterparts to victimise both males and females and significantly less likely to victimise only females.

Adults

Rice et al. (2008) found sexual offenders with IDD were significantly more likely to have a victim younger than 13 ($p < .001$), a male victim younger than 13 ($p < .001$), a victim younger than 5 ($p < .001$), a female ($p < .05$) and a male ($p < .001$) victim younger than 5. Sexual offenders with IDD were also significantly more likely to have a male victim older than 12 ($p < .001$) and a male victim generally ($p < .001$). They were also significantly less likely to have a female victim ($p < .001$), a female victim aged 13 or over ($p < .05$) and any victim aged 13 or older ($p < .05$).

However, it should be noted that the Fortune et al. (2004) study was based in New Zealand, and compared to the general population, adolescent sexual offenders with Maori origins were found to be over represented in the IDD group, therefore limiting the generalisability of the results. In addition, a significant degree of caution needs to be exercised when interpreting the findings of Gilby et al. (1989) as

the study employed a small sample size ($n=10$, for each group), which is likely to have affected the ability to detect differences between groups. Furthermore, information relating to the study's recruitment procedure for both cases and controls was unclear. The assessment and treatment service participants were recruited from provided services for both an inpatient and outpatient population. It is not stated from which service participants were drawn, or whether participants were matched on residential status. It is therefore possible that victim type may have been affected by the participant's residential status and the restrictions this might place on the accessibility of potential victims. In addition, the study did not provide any details regarding participant age, stating all were 'adolescents' (which according to the definition by the World Health Organisation covers the age range of 10 and 19 years). Therefore, it is unclear how age may also have impacted on the study's findings. Also of note, the authors reported that some of the participants in the comparison group had a learning disability falling in the borderline range. This may have also limited the degree to which differences between groups could be detected.

With regards to the study conducted by Rice et al. (2008), due to a limited access to historic data, IQ scores were approximated for 10 participants and missing altogether for 31 participants. Thus, any suggested differences between the two groups should be interpreted with caution.

Poor Family Background

Gilby et al. (1989) also examined variables related to 'family disturbance' (i.e. family violence, marital breakup, family conflict and separation from family). Adolescent cases were compared to adolescent controls. Using a semi-structured interview, and case/police file information, in a separate study Hayes (2009) compared the recorded history of family conflict (verbal) and family violence between adult cases and controls (however both groups were considered to be generalist offenders with 64.3% having committed other non-sexual offences).

Comparison Group a) Sexual Offenders Without IDD

Adolescents

The findings in Gilby et al. (1989) indicated that although a greater trend for family disturbance was observed in the sexual offenders without IDD, this failed to reach significance (Gilby et al., 1989).

Adults

In Hayes (2009) no significant differences were observed in the recorded history of family conflict (verbal) and family violence between cases and sexual offenders without IDD.

Comparison Group c) Non-offenders with IDD

Adolescents

The findings in Gilby et al. (1989) also indicated there was little difference in the prevalence for family disturbance between sexual

offenders with IDD and non-offenders with IDD. Therefore, comparisons between the groups were non-significant (Gilby et al., 1989).

Due to the methodological problems within the Gilby et al. (1989) study, it is not clear how reliable their findings are. In addition, the sample used by Hayes (2009) was a sample of convenience and therefore unlikely to be representative of the general population, thus limiting any conclusions that can be drawn. Part of the data for this study was collected via a semi structured interview, it is therefore unlikely the assessor was blind when recording/rating the absence or presence of variables. It is also not clear as to whether the interview structure was suitable for individuals with IDD or whether adjustments/adaptions were made to items, or the way the interview was conducted therefore may have introduced a degree of measurement bias. It was also not clear as to whether the same assessor conducted all the interviews, therefore bias may have been introduced due to differences in individual interpretations with regards to the degree of severity of reported incidents. To improve the reliability of the collected data, the author reported a clinical psychologist blind to the background information of participants had independently reviewed assessment materials. However, the details of this process were not provided.

Victim of Abuse

By examining data contained in participant's case/police files, three studies sought to compare the abuse histories of cases and controls. Two studies (Gilby et al., 1989; Fortune et al., 2004) compared the abuse history of adolescent cases and controls, and one study (Hayes, 2009) compared the abuse histories of adult cases and controls.

Comparison Group a) Sexual Offenders Without IDD

Adolescents

Gilby et al. (1989) found the recorded incidence of both types of abuse (physical or sexual) not to be high between cases and sexual offenders without IDD. Therefore, abuse history failed to significantly discriminate between the two groups. In contrast Fortune et al. (2004) found that compared to adolescent sexual offenders without IDD, sexual offenders with IDD were significantly less likely to have a history free from instances of reported sexual abuse, ($\chi^2 (1, 155) = 6.77, p < .010$), significantly less likely to have a history free from physical abuse ($\chi^2 (1, 155) = 6.55, p < .05$) and significantly more likely to have reports of neglect in their files ($\chi^2 (2, 155) = 14.16, p < .010$). They were also more likely to have reports of emotional abuse ($\chi^2 (2, 155) = 10.24, p < .010$). Suggesting abuse history may have been a discriminating factor between the two groups.

Adults

Hayes (2009) demonstrated that compared to their Non-IDD counterparts, adult sexual offenders with IDD were significantly more likely to have been a victim of physical abuse during childhood ($p < .05$). No significant differences were found between the two groups with regards to prior history of sexual abuse.

Comparison Group c) Non-offenders with IDD

Adolescents

Gilby et al. (1989) found the recorded incidence of both types of abuse (physical or sexual) not to be high between cases and non-offenders with IDD. Therefore, abuse history failed to significantly discriminate between the two groups.

The quality assessment scores of these three papers were variable with Hayes (2009) achieving the lowest overall quality score of 20 (45%) due to several items assessing measurement bias being rated unclear. The study conducted by Fortune et al. (2004) was of better quality overall scoring 29 (66%), suggesting their findings might be considered more robust. However, it should be noted that all the above studies employed data collected from participant case files, which can introduce bias. For example, child abuse definitions may not have been applied uniformly between clinicians and what constitutes emotional abuse can be very subjective. Accurate and consistent recording between clinicians can be difficult, often resulting in case file data that is inaccurate.

Past Criminal History - Non-Sexual Offences and Delinquent Behaviour.

Three studies assessed participants past criminal history, non-sexual offending and delinquent behaviour. Two studies consisted of adolescent cases and controls (Gilby et al., 1989; Fortune et al., 2004) and one consisted of adult cases and controls (Rice et al., 2008). Gilby et al. (1989) examined previous delinquent behaviour by identifying incidents of theft, truancy and fire setting from participant's case files and comparing these across groups. The second study (Fortune et al., 2004) also used case file data to identify and compare participants recorded history of stealing/theft, solvent use, fire setting, substance abuse, intentional damage and assault. As with the other two, Rice et al. (2008) also examined participants' case/police files for incidences of non-sexual violence and then compared the frequency of these across groups.

Comparison Group a) Sexual Offenders Without IDD

Adolescents

Gilby et al. (1989) found that adolescent sexual offenders with IDD were significantly less likely to have exhibited previous delinquent behaviour than sexual offenders without IDD ($p < .05$). In contrast, in their study Fortune et al. (2004) found no significant differences in the previous offending histories for adolescent sexual offenders with and without IDD.

Adults

The findings of Rice et al. (2008) study were similar to those of Gilby et al. (1989) in that adult sexual offenders with IDD had significantly less serious non-sexual violent offence histories, ($p < .001$) compared to their non-IDD counterparts. No significant differences were observed between groups on total number of violent offences.

Comparison Group) Non-offenders with IDD

Adolescents

Gilby et al. (1989) found no significant differences in the recorded history of delinquent behaviour between sexual offenders with IDD and non-offenders with IDD.

However, it should be noted that in their discussion, Rice et al. (2008) point out that the sexual offenders with IDD were more likely to have been previously placed in supervised group homes and sheltered workshops limiting their opportunity to offend, which may be a significant confounding factor. It is difficult to draw any firm conclusions regarding the difference in findings between Gilby et al. (1989) and Fortune et al. (2004). This is mainly due to the lack of information on sampling and important demographic variables (e.g. how cases and controls were recruited and if they were similar at baseline, participants age and range), provided within the Gilby et al. (1989) study.

Dynamic Factors

Deviant Sexual Interests

Just one of the studies explored deviant sexual interests. Rice et al. (2008) measured adult cases and controls phallometric response to 5 different sets of aural and visual stimuli that had been used over a recruitment period spanning 20 years. Visual stimuli depicted nude or partially nude adults or children of different ages and developmental categories. Aural stimuli included two neutral stories and two stories depicting various connotations of sexual and/or violent behaviour between adults and between adults and children. Set 1 and 2 only measured visual stimuli. Set 3 comprised of aural stimuli or aural stimuli plus visual stimuli. Set 4 comprised of aural and visual stimuli (including neutral stimuli). Set 5 (used only with sexual offenders with IDD) was found to yield significantly less deviant scores than the other sets and therefore removed from the analysis. The 6th stimulus comprised of aural stimuli depicting consensual and non-consensual sex and non-sexual violence towards women and used in the assessment of sexual offenders who had assaulted pubertal or post-pubertal victims.

Comparison Group – a) Sexual Offenders Without IDD

Adults

Responses on Set 1 indicated sexual offenders with IDD had significantly more deviant age preferences ($p < .05$), had a greater relative preference for pre-pubertal boys ($p < .01$), a greater relative preference for pre-pubertal girls ($p < .05$), a greater relative

preference for boy's younger than 5 ($p < .05$), and a greater relative preference for girl's younger than 5 ($p < .05$). Comparisons of the responses on sets 1 – 4 demonstrated that sexual offenders with IDD had significantly more deviant age preferences ($p < .01$), had greater relative preference for pre-pubertal boys ($p < .01$), greater relative preference for pre-pubertal girls ($p < .05$), a greater relative preference for boy's younger than 5 ($p < .01$), and a greater relative preference for girl's younger than 5 ($p < .01$) and a greater relative preference for males ($p < .001$). No significant differences were observed between groups on stimulus set 6. When all included stimulus sets were considered sexual offenders with IDD had significantly higher maximum deviance indices than sexual offenders without IDD ($p < .001$).

However, as mentioned previously this study may be vulnerable to sampling bias (as the IQ score for some of the participants in the experimental group was unclear or missing altogether), therefore these findings should be interpreted with caution.

Lack of Sexual Knowledge

Using the self-report Socio-Sexual Knowledge and Attitude Assessment tool (SSKAAT, Wish, McCombs & Edmondson, 1980) the level of sexual knowledge was assessed across adult cases and controls in two studies (Michie et al., 2006; Nardis, 1994).

Comparison Group – b) Non-sexual Offenders with IDD

Adults

In the study conducted by Nardis (1994) the author found that sexual offenders with IDD scored higher across 7 sub-scales of the SSKAAT (*Anatomy, Dating, Marriage, Intimacy, Intercourse, Masturbation, Homosexuality*) than non-sexual offenders with IDD. However, the differences observed failed to reach significance.

Comparison Group – c) Non-offenders with IDD

Adults

When comparing sexual knowledge between cases and non-offenders with IDD, Nardis (1994) found sexual offenders with IDD scored higher across all 7 subscales of the SSKAAT than non-offenders with IDD. However, again, the difference in scores failed to reach significance.

In both studies reported by Michie et al. (2006) the sexual offenders with IDD scored higher across all the SSKAAT subscales than non-offenders with IDD, although not all reached significance. In study one, the scores on 3 of the 13 SSKAAT sub-scales reached significance; Birth Control $t(35) = 2.33, p < .05$, Masturbation $t(35) = 2.62, p < .05$ and Sexually Transmitted Disease $t(35) = 2.13, p < .05$. In study 2, scores on 7 of the 11 sub-scales measured reached significance: Anatomy $t(29) = 2.34, p < .05$, Menstruation $t(29) = 2.59, p < .05$, Intimacy, $t(29) = 5.19, p < .01$, Intercourse $t(29) = 3.91, p < .01$, Birth control $t(29) = 2.46, p < .05$, Masturbation $t(29) =$

4.37, $p < .01$ and Homosexuality $t(29) = 2.28$, $p < .05$. Due to the relatively higher quality rating of this study, the integrity of these findings are considered to be fairly robust.

The failure to reach significant results in the Nardis (1994) study may have been due to the small sample size employed across all three groups ($n=12$ respectively). However, it should be noted that the representativeness of the sample in this study was unclear, and therefore a selection bias may also play a role in these findings. It is also of note that the samples of sexual offenders employed by these studies differed. In the two studies undertaken by Michie et al. (2006) the sample consisted of a group of offenders who had committed sexual offences against children and/or adults. In contrast, the sample in the second study consisted entirely of sexual offenders who had been diagnosed with paedophilia. The authors did not report whether these individuals had also offended sexually against adults. It is possible the difference in the significance of results between these studies may also reflect differences in sexual knowledge levels between different types of sexual offender.

Socio Affective Functioning: Relationships and Intimacy

Three studies sought to explore relationships and intimacy across cases and controls. One study consisted of adolescent cases and controls (Gilby et al., 1989) and two consisted of adult cases and controls (Stephoe et al., 2006; Nardis, 1994).

In the first of these Gilby et al. (1989) reviewed the clinical files of cases and controls to determine the presence of variables related to poor social relations (although they do not detail what these were). In the second study Steptoe et al. (2006) used two scales to compare information on participants' relationships. The first was the Significant Others Scale (SOS - Power et al., 1988), to explore the range of relationships experienced by group members (e.g. the actual emotional support provided by their relationships, and their desired support from these relationships). The second was the self-report Relationships sub-scale of the Life Experience Checklist (LEC, Ager, 1990). This scale aimed to measure relationships in terms of making a positive addition to the individual's life experience.

Finally, using the Social Judgement Scale - SJS (Spragg, 1983; a measure standardised on individuals with mild to moderate IDD), Nardis (1994) explored cases and controls ability to express adaptive social responses when presented with a variety of hypothetical situations.

Comparison Group a) Sexual Offenders Without IDD

Adolescents

Gilby et al. (1989) found that both sexual offenders with IDD and sexual offenders without IDD demonstrated high levels of social relationship difficulties. Therefore, no significant differences between groups were observed.

Comparison Group b) Non-sexual Offenders with IDD

Adults

On comparing scores on the SJS Nardis (1994) found no significant differences in the ability to express adaptive social responses between sexual offenders with IDD and non-sexual offenders with IDD.

Comparison Group c) Non-offenders with IDD

Adolescents

Gilby et al. (1989) found that both sexual offenders with IDD and non-offenders with IDD demonstrated high levels of social relationship difficulties; therefore, no significant differences between groups were observed.

Adults

Comparing responses on the SOS Steptoe et al. (2006) found that sexual offenders with IDD reported significantly lower actual and ideal levels of support from their mother and father, (Mother actual $t(44) = 3.57, p < .01$; Mother ideal $t(35) = 7.81, p < .001$; Father actual $t(44) = 6.43, p < .001$; Father ideal $t(35) = 6.18, p < .001$) than the non-offenders with IDD. No significant differences were found between the number and type of relationships mentioned between groups. On the relationships subscale of the LEC the sexual offenders with IDD scored significantly lower than the non-offenders with IDD ($t(54) = 6.84, p < .001$) suggesting the sexual offenders with IDD experienced their relationships as making less of a positive

contribution to their lives than the non-offenders. In their study, Nardis (1994) found no significant difference in the ability to express adaptive social responses between sexual offenders with IDD and non-offenders with IDD.

Participant recruitment procedure and small sample size may be responsible for the lack of significant findings in Gilby et al. (1989). Taken together the findings of Steptoe et al. (2006) suggest that the relationships experienced by sexual offenders with IDD tend to be poorer (particularly with parents) than those experienced by non-offenders with IDD. Furthermore, these individuals did not seek an improvement in these relationships. The SOS explores current perceptions of relationships with the implicit assumption they have a developmental source,' (Steptoe et al., 2006, pg. 17). Due to the nature of relationships constantly evolving, reporting may have been more reflective of participants more recent experiences of attachments (i.e. offender's ratings may have been affected by parental reaction to their sexual offending) rather than those experienced developmentally, therefore limiting the conclusions that can be drawn from these findings. In addition, from the quality assessment it was not clear if either of the two measures had been standardised on an IDD population, which might affect the reliability of observed outcomes. Finally, the sample employed by Nardis (1994) consisted of offenders diagnosed with paedophilia, suggesting these results may not generalise to other types of sexual offender with IDD.

Social Skills Deficits

One study sought to explore social skills deficits across cases and controls. Fortune et al. (2004) compared parental ratings on the Social Problems sub-scale of the Child Behaviour Checklist (CBCL, Achenbach, 1991). The CBCL was designed to assess the behavioural problems and social competence of children aged 4-18 years. Parents rate items as to how well they describe their child.

Comparison Group a) Sexual Offenders Without IDD

Adolescents

Fortune et al. (2004) found that parents of adolescent sexual offenders with IDD reported their son as having significantly more social skills deficits than the parents of adolescent sexual offenders without IDD ($F(1,62) = 10.74, p < .01$).

The authors also compared case file data on the rate of anger problems and the presence of social skills deficits across cases and controls. The sexual offenders with IDD presented with significantly more social skills deficits than the sexual offenders without IDD, ($\chi^2(1, 155) = 5.578, p < .05$). No significant differences were observed on the rate of anger problems between the two groups.

However, as noted by the authors the CBCL has been normed on an American sample of children (aged 4 to 18 yrs.) and therefore its generalisability to adolescents in New Zealand may be limited and may affect the validity of the findings presented here.

Self-Esteem and Loneliness

Gillis et al. (1998) explored group differences on measures of self-esteem and loneliness. The self-report Self-Esteem Inventory (SEI; Coopersmith, 1981) was used to measure participant's self-evaluations in social, family and personal areas of experience. The self-report Modified Loneliness Questionnaire (MLQ; Asher & Wheeler, 1985) was used to measure participant's feelings of loneliness using the participant's self-evaluation of their status among peers and feelings of loneliness and social inadequacy.

Comparison Group c) Non-Offenders with IDD

Adults

No significant differences in scores were observed on both the SEI (self-esteem) and the MLQ (Loneliness) measures between sexual offenders with IDD and non-offenders with IDD.

Due to the lack of information contained within this study, its overall quality score was low (18/41%). It was not clear how the sample was recruited, whether the assessor was blind to the participant group when scoring measures, and if the sample was representative. It appears the sexual offenders with IDD comprised solely of individuals who had offended sexually against children, and it was unclear as to whether these individuals had been convicted of these crimes. These methodological issues therefore limit any conclusions that can be drawn.

Impulsivity

Four studies explored impulsivity between adult cases and controls (Chung, 2002; Nardis, 1994; Parry & Lindsay, 2003; Van den Bogaard et al., 2013). The first study used the Decision-Making Questionnaire (DMQ), a two item (unstandardised) self-report measure designed specifically for the study to measure and compare impulsive decision-making between cases and controls. The DMQ was administered twice, the first time after the respondent had found out a puzzle they had been constructing had been disassembled whilst it was out of their view, and second, after hearing an ambiguous tape recording suggesting another (unseen) participant had disassembled the puzzle. In their study, Nardis (1994) compared participant scores on the Impulse Control sub-scale of the Emotional Problem Scales (Prout & Strohmer, 1991) to test for group difference in impulsivity, with higher scores on the measure indicating higher impulsivity. In their study, Parry and Lindsay (2003) used a modified version of the self-report Barratt Impulsivity Scale 11th Edition (BIS-11; Patton, Stanford & Barratt, 1995) to compare impulsivity scores between cases and controls. Finally, Van den Bogaard et al. (2013) explored group differences in impulsivity by examining informant's responses on the Impulsivity Item of the Risk Inventarisation Scale of Sexual Offence Behaviour of Clients with intellectual developmental disorders, (RISC-V, Embregts et al., 2010) for both cases and controls.

Comparison Group b) Non-sexual Offenders with IDD

Adults

In Chung (2002), no significant difference in responding on the DMQ was observed between sexual offenders with IDD and non-sexual offenders with IDD on the first administration. On the second administration, the adult sexual offenders with IDD were significantly more likely to state they had made a decision (responding yes) on the first question in the DMQ ($\chi^2 (1, 37) = 5.39, p < .05$) and significantly more likely to respond to the second question that a purposeful act had been committed ($\chi^2 (1, 37) = 7.55, p < .05$) than their non-offending counterparts.

In the Nardis (1994) study, scores on the impulse control subscale of the Emotional Problem Scales indicated there were no significant differences in levels of impulsivity between sexual offenders with IDD and non-sexual offenders with IDD. Comparing responses on the BIS-11, Parry and Lindsay (2003) found that adult sexual offenders with IDD were significantly less impulsive than non-sexual offenders with IDD ($t = -15.91, p < .01$). In contrast to Parry and Lindsay (2003), Van den Bogaard et al. (2013) findings indicated the sexual offenders with IDD were significantly less able to control their impulses compared to non-sexual offenders with IDD ($t(67) = -2.54, p < .05$).

Comparison Group c) Non-offenders with IDD

Adults

The Nardis (1994) study also demonstrated that sexual offenders with IDD scored significantly higher on impulsivity than non-offenders with IDD ($p < .05$). Comparing responses BIS-11 Parry and Lindsay (2003) found no significant differences in impulsiveness scores on the BIS 11 between sexual offenders with IDD and non-offenders with IDD.

On further examination of the items on the DMQ measure used by Chung (2002), it was not clear to the author of this review if the questionnaire was examining the constructs of impulsivity or of decision making ability. It was also not clear if the comparison group consisted of non-sexual offenders or non-offenders with IDD, therefore limiting any conclusions can be drawn. In the study conducted by Nardis (1994) both sexual offenders with IDD and non-sexual offenders with IDD scored significantly higher on impulsivity than the non-offenders with IDD ($p < .05$), which might suggest that impulsivity (as measured by the Emotional Problems Scale), may be more linked to offending behaviour than it is to IDD.

In the Parry and Lindsay (2003) study the authors report making reasonable adaptations to the BIS-11, but do not appear to have tested the reliability and validity of the modified tool with individuals with IDD, which might invalidate the study's findings. In addition, the authors state the sexual offenders with IDD had been attending a cognitive behavioural therapy treatment programme. It is not clear

if this programme included treatment aimed at reducing impulsivity, which if present may be a confounding factor. In the Van den Bogaard et al. (2013) study the non-offenders with IDD were found to have a significantly higher mean IQ score compared to the sexual offenders with IDD ($\chi^2 (1) = 4.78, p=.029$), which may have influenced their findings on this factor. In addition, whilst the authors attempted to ensure staff respondents on the RISC-V knew the participant well, observer bias may have led to data being misclassified due to personal and varying perspectives across observers.

Poor Problem-Solving Skills

To explore general problem-solving skills across cases and controls, Chung (2002) compared scores obtained on an adapted (unvalidated) version of the Social Problem-Solving Inventory – Revised (SPSI-R; D’Zurilla, Nezu & Maydeu-Olivares, 2002). The SPSI-R is a 52-item, multidimensional self-report measure of social problem-solving ability, consisting of five scales. These are Positive Problem Orientation; Negative Problem Orientation; Impulsivity/Carelessness Style; Avoidance Style and Rational Problem-Solving (RPS). The RPS scale consists of four subscales which together make up the total RPS score, these are, Problem Definition and Formulation; Generation of Alternative Solutions; Decision Making and Solution Implementation and Verification.

Comparison Group – b) Non-Sexual Offenders with IDD

Adults

'Sexually aggressive' adult offenders with IDD were found to score significantly lower on the Decision Making subscale of the RPS than males with IDD and no history of sexually aggressive behaviour ($t(28) = -3.27, p < 0.01$). No other significant differences were observed between the two groups on any of the other adapted SPSI-R scales or subscales.

However, a probable confounding variable is that a third of the participants in the sexual offender group had been diagnosed with schizophrenia. Individuals with this diagnosis often have difficulties with problem solving (Xia & Li, 2007) therefore limiting any conclusions that can be drawn from these findings.

Resistance to Rules /Authority Figures

In their respective studies Nardis (1994) and van den Bogaard et al. (2013) also explored rule-breaking behaviour between adult cases and controls. The first explored differences in scores on the Conformity domain of the Adaptive Behaviour Scale Residential and Community Second Edition (ABS RC: 2, Nihira et al., 1992). Items included attitudes towards authority and abstinence towards rules and regulations, with lower scores indicating less conformity. The second study examined responding on the 'Rule Breaking Behaviour' sub-scale of the Adult Behaviour Checklist-ABCL (Achenbach & Rescorla, 2003). The measure is designed to explore behaviour

exhibited by an individual during the preceding 3 months and is completed by others who know the individual well.

Comparison Group b) Non-Sexual Offenders with IDD

Adults

Nardis (1994) found no significant difference in scores on the Conformity Domain of the ABS RC:2 between sexual offenders with IDD and non-sexual offenders with IDD. In their study Van den Bogaard et al. (2013) found that sexual offenders with IDD were rated as demonstrating significantly less rule-breaking behaviour on the ABCL compared to non-sexual offenders with IDD, ($t(67) = -2.677, = p < 0.01$).

Comparison Group c) Non-offenders with IDD

Adults

On comparing scores on the Conformity Domain of the ABS RC:2, Nardis (1994) found that sexual offenders with IDD scored significantly lower than non-offenders with IDD ($p < .05$). These findings suggested that the sexual offenders with IDD were significantly less likely to demonstrate conforming type behaviours compared to non-offenders with IDD.

However, both studies employed informant measures, therefore it is not clear to what degree observer bias may have influenced the finding in both these studies. Nardis (1994) scored the ABS from information sent from the primary service providers from the

different participant sites. Therefore, dependent on the observer's knowledge of participants, there would be considerable variability in the accuracy, quality and content of this information. The author then interpreted this information to score the ABS, suggesting a further dilution of this information introducing a degree of measurement bias, therefore limiting any conclusions that can be drawn from these two studies.

Hostility

Two studies (Gillis et al., 1998; Chung, 2002) sought to explore differences in levels of hostility across adult cases and controls. The first of these employed two scales: The Buss Durkee Hostility Scale (Buss & Durkee, 1957) was used to assess general hostility. The self-report Hostility Towards Women Scale (Check, 1984) was used to assess group differences on hostility towards women. The second study (Chung, 2002) explored group differences by employing the Attributional Rating of Intent (ARI) measure. A three item self-report scale, which aimed to assess the participant's attribution of intent, their reasoning process (i.e., cue encoding), and how they may behave as a result of the attribution. As was the case with the study's impulsivity measure, the ARI was administered twice (see impulsivity section above for details).

Comparison Group b) Non-Sexual Offenders with IDD

Adults

In Chung (2002), the scores on the ARI indicted there were no

significant differences between the ratings of hostility for both cases and controls on either the first or second administration of the ARI.

Comparison Group c) Non-Offenders with IDD

Adults

In their study Gillis et al. (1998) found no significant differences on general hostility scores between cases and controls, but on the Hostility Towards Women Scale sexual offenders with IDD scored significantly higher than non-offenders with IDD. $F(1,20) = 11.58$, $p = .05$.

In both these studies the reliability and validity of the measures used was questionable. Whilst Gillis et al. (1998) did employ standardised measures, it is not clear whether they were standardised on individuals with IDD. The authors reported adapting the scales to improve comprehension but did not report on what these adaptations were and how this affected the measures reliability. The ARI employed by Chung (2002) appears to be an unvalidated open-ended self-report measure, designed specifically for the study. It is therefore unclear if items were accurately measuring the construct of hostility.

Interpersonal Aggression

Three studies (Hayes, 2009; Nardis, 1994; van den Bogaard et al., 2013) sought to examine group differences on interpersonal aggression between adult cases and controls. Using data collected

from a semi-structured interview and from case files/police and legal documents Hayes (2009) sought to explore group differences regarding a diagnosis of aggressive behaviour. In their attempt to explore group differences in interpersonal aggression Nardis (1994) used data from participants' clinical records to score items on the Social Behaviour domain of the Adaptive Behaviour Scale Residential and Community Second Edition (ABS RC: 2, Nihira et al., 1992). Items included, threats, physical violence, temper tantrums, teasing, foul language, increased frustration and disruptive behaviour. The third study examined responding on the 'Aggressive Behaviour' subscales of the Adult Behaviour Checklist-ABCL (Achenbach & Rescorla, 2003). As mentioned previously this is an informant measure designed to examine behaviours exhibited by an individual during the preceding 3 months. It is completed by others who know the individual well.

Comparison Group a) Sexual Offenders Without IDD

Adults

In her study, Hayes (2009) found that sexual offenders with IDD were significantly more likely to be diagnosed with aggressive behaviour than sexual offenders without IDD, ($\chi^2 = 4.91$, $df. = 1$, $p < .02$).

Comparison Group b) Non-sexual Offenders with IDD

Adults

Nardis (1994) found no significant difference in score on the Social Behaviour domain of the ABSRC:2 between sexual offenders with IDD and non-sexual offenders with IDD. Similarly, van den Bogaard et al. (2013) also found no significant differences in informant's responses on the 'Aggressive Behaviour' Sub-scale of the Adult Behaviour Checklist – ABCL (Achenbach & Rescorla, 2003) for sexual offenders with IDD and non-sexual offenders with IDD.

Comparison Group c) Non-offenders with IDD

Adults

On comparing responses on the Social Behaviour domain of the ABSRC:2 Nardis found that incidents associated with threats, physical violence, temper tantrums teasing foul language increased frustration and disruptive behaviours occurred at a significantly higher rate in sexual offenders with IDD compared to non-offenders with IDD.

As reported previously both the Nardis (1994) and van den Bogaard et al. (2013) studies employed informant measures. The procedure utilised in both studies when completing these measures may have introduced both observer and measurement bias, therefore reducing confidence in their findings. In her study, Hayes (2009), utilised a small sample of convenience, which may have introduced some degree of selection bias, making it difficult to generalise outcomes. In addition, the study employed a semi-structured interview to assist

with the data collection process. It was therefore unlikely the assessor was blind to the status of the participant. It is also unclear if more than one assessor conducted the interviews. It is possible that the variables of interest may have been subject to interviewer bias. Given the lack of information and methodological problems discussed, some degree of caution needs to be taken in interpreting Hayes (2009) findings.

Offence Supportive Beliefs and Attitudes.

Three studies sought to explore differences in offence supportive beliefs and attitudes (cognitive distortions) across adult cases and controls (Broxholme & Lindsay, 2003; Langdon & Talbot, 2006; Lindsay et al., 2007). All three studies used the self-report Questionnaire on Attitudes Consistent with Sexual Offending (QACSO, Lindsay, Whitefield & Carson 2007) to measure offence supportive beliefs and attitudes between cases and controls. The first two studies were part of the development process of the QACSO, which was designed specifically for use with sexual offenders with intellectual developmental disorders. In the study conducted by Langdon and Talbot (2006) scores on the QACSO were compared between two groups of sexual offenders with IDD (cases) a pre-treatment group and a post-treatment group and non-offenders with IDD. The findings across all three studies were fairly consistent.

Comparison Group - Pre-treated Sexual Offenders with IDD

Adults

Langdon and Talbot (2006) found the pre-treatment sexual offenders gave significantly more socially inappropriate responses than post-treatment sexual offenders on the Rape scale, the Exhibitionism scale, the Homosexual Assault scale, the Paedophilia scale, the Stalking and Harassment scale and the overall Total score on the measure. Post hoc's revealed the significant differences were at the $p < .05$ level. However, scores on the Voyeurism and Dating abuse scales failed to reach significance.

Comparison Group b) Non-sexual Offenders with IDD

Adults

In their study Broxholme and Lindsay (2003) found that sexual offenders with IDD gave significantly more socially inappropriate responses than non-sexual offenders with IDD on the Rape scale, Attitudes Towards Women scale, Voyeurism scale, Exhibitionism scale, Dating Abuse scale, Homosexual Assault scale and the Paedophilia scale and on the overall total score. Post hocs revealed significant differences were at the $p < .05$ level. Lindsay et al. (2007) found sexual offenders with IDD gave significantly more socially inappropriate responses than non-sexual offenders with IDD on all subscales of the QACSO. Post hoc tests using Tukey HSD indicated significant differences were at the $p < .05$ level.

Comparison Group c) Non-offenders with IDD

Adults

Langdon and Talbot (2006) found the pre-treatment sexual offenders gave significantly more socially inappropriate responses than non-offenders with IDD on the Rape scale, the Exhibitionism scale, the Homosexual Assault scale, the Paedophilia scale, the Stalking and Harassment scale and the overall Total score on the measure. Post hoc tests revealed the significant differences were at the $p < .05$ level. However, scores on the Voyeurism and Dating abuse scales failed to reach significance. No significant differences were observed on either the section scores or total score between the post-treatment sexual offenders with IDD and the non-offenders with IDD. In their study, Lindsay et al. (2007) found sexual offenders with IDD gave significantly more socially inappropriate responses than the non-offenders with IDD on all subscales of the QACSO. Post hoc tests using Tukey HSD again indicated significant differences were at the $p < .05$ level.

In the Broxholme and Lindsay (2003) study participants in the comparison group (non-sexual offenders with IDD) consisted of 7 participants with a previous proven or alleged non-sexual offending history, and 12 participants with no known history of offending. It is therefore unclear as to where the observed, between group differences, on offence supportive beliefs could be attributed. In addition, the sample of sexual offenders with IDD was small, with offences falling within the rape; paedophilia and exhibitionism sub-

scales of the measure, suggesting the sample may not have been representative of sexual offenders in the general population, and that some of the QACSO subscales may not have been fully addressed.

The findings of Langdon and Talbot (2006) suggest that psychological treatments may be effective in reducing offence supportive beliefs in sexual offenders with IDD. The authors reported no significant difference between the two groups on the number of sexual offences perpetrated and victim type. However, they did not report on the severity of offences for the two groups which may have been a differentiating factor, e.g. the more deviant/severe the sexual offence the more entrenched the offences supportive beliefs.

Furthermore, it appears there were differences in the treatments that were provided to participants in the treated group, which varied across the different services the sample was drawn from and was not controlled for. Therefore, this limits the degree to which observed differences in offence supportive beliefs can be attributed to a successful treatment approach.

The range of sexual offences within the Lindsay et al. (2007) study was reported to be diverse. Specifically, the sample included participants with exhibitionism and sexual harassment offences, who may score higher on the dating abuse and voyeurism scales compared to other types of sexual offender.

It was not clear if the sample of sexual offenders in the Langdon and Talbot study contained similar such offenders, which might explain why scores on these scales did not differentiate the two groups. The overall quality scores of the studies exploring this risk factor fell within the moderate range. However, the study conducted by Lindsay et al. (2007) was of a higher quality than the other two, and therefore some confidence can be placed in their findings.

Discussion

The main aims of this systematic review were to explore what risk factors are commonly seen in male sex offenders with intellectual development disorders (IDD) and are they similar or different to other populations (offending and non-offending) of males with IDD.

Main Findings

Adolescents

Comparison Group a) Sexual Offenders Without IDD

The findings of this review suggested that although sexual offenders with IDD and sexual offenders without IDD demonstrated similar patterns in the age of their victims, compared to their non-IDD counterparts, adolescent sex offenders with IDD demonstrated less specificity for the gender of their victims and tended to target victims who were peers or under the age of 12 years.

Adolescent sexual offenders with IDD were also more likely to have a reported history of being a victim of abuse (sexual, physical, emotional and neglect) compared to their Non-IDD counterparts. This suggests that abuse history may be a discriminating factor between the two groups. Sexual offenders with IDD presented with more social skills deficits and were rated by their parents as having more social problems within the clinical range than adolescent sexual offenders without IDD. The rate of anger problems was observed to be similar between IDD and Non-IDD adolescent sexual offenders.

Results comparing previous delinquent behaviour/previous non-sexual offending history between groups were mixed, and therefore no firm conclusions can be drawn.

Comparison Group b) Non-Sexual Offenders Without IDD

The current review did not contain any studies comparing risk factors between adolescent cases and adolescent non-sexual offenders with IDD.

Comparison Group c) Non-offenders with IDD

No significant differences in risk factors between cases and non-offenders with IDD were identified in the current review.

Adults

Comparison Group a) Sexual Offenders Without IDD

The findings of this review suggested that adult male sexual offenders with IDD were more likely to have a prepubertal victim, a prepubertal male victim, a very young victim, and less likely to have a female victim compared to their Non-IDD counterparts. With regards to deviant sexual interests, adult sexual offenders with IDD were found to exhibit more deviant preferences for prepubertal children, younger children, and male children than their non-IDD counterparts. Also, sexual offenders with IDD were more likely to have been a victim of physical abuse during childhood. Regarding past criminal history, the findings also suggest that adult sexual offenders with IDD committed less serious violent (non-sexual) offences than sexual offenders without IDD but may be more likely to be diagnosed with aggressive behaviour than their non-IDD counterparts. Having a poor family background did not differentiate cases from controls, and due to the poor methodological quality of the other studies, no further conclusions could be drawn.

Comparison Group b) Non-Sexual Offenders with IDD

The findings of this review suggested that adult sexual offenders with IDD are more likely to hold offence supportive beliefs/attitudes with regards to sexual offending than non-sexual offenders with IDD. In addition, sexual offenders with IDD do not appear to demonstrate lower levels of sexual knowledge and were observed to demonstrate less rule breaking behaviours than non-sexual offenders with IDD.

The results from studies comparing impulsivity between groups were mixed and therefore no firm conclusions can be drawn.

Comparison Group c) Non-offenders with IDD

The findings of the review suggested that while sexual offenders with IDD have a similar number and range of relationships, these may be poorer (particularly with parents) than those experienced by non-offenders with IDD. Sexual offenders with IDD were also found to be more likely to hold offence supportive beliefs/attitudes with regards to sexual offending, were more likely to be impulsive, demonstrate interpersonal aggression, be hostile towards women, engage in rule breaking behaviour and demonstrate higher levels of sexual knowledge compared to non-offenders with IDD.

Due to the lack of information and the methodological quality of some of the studies included in this review, no further conclusions could be drawn. However, the initial findings presented here may help to further inform the treatment needs of sexual offenders with IDD.

In their study Lindsay, Elliot and Austell (2004) reported that a poor relationship with mother, sexual abuse in childhood, anti-social attitude, offences involving violence, and lack of assertiveness skills, were all factors that significantly correlated with sexual recidivism in sexual offenders with IDD. These findings are tentatively supported in the current review. Furthermore, sexual offenders with IDD have

been found to be less discriminating on victim age and type (Day, 1994); and have a greater tendency to have victims who are younger children and male children (Blanchard, Watson, & Choy, 1999; Brown & Stein, 1997). Some tentative support for these factors has also been demonstrated in the current review.

However, the current findings do not offer support to the counterfeit deviance hypothesis (Hingsburger et. al., 1991), which proposes that a lack of sexual knowledge, may be a contributory factor as to why some individuals with IDD go onto sexually offend. In the studies included in this review, sexual offenders with IDD consistently demonstrated higher levels of sexual knowledge than the comparison groups.

Overall Quality

All the studies included in this review had some degree of inherent bias, and the overall quality of the included studies was low to moderate. Total samples size varied from 22 to 155 and were often small and uneven between groups. It was often difficult to generalise findings due to samples not being representative of a larger or more diverse population. Furthermore, the use of small samples makes it difficult to detect differences between groups, increasing the chances of a type II error. It is possible that the non-significant findings in some studies may have been due to this factor and employing a larger sample may have led to more reliable outcomes.

None of the included studies provided a detailed description of how intellectual development disorders are diagnosed, and for some studies, it was unclear how the level of intellectual functioning was determined for some of the participants classed as IDD.

Furthermore for 3 studies it was unclear how the cases and controls were recruited. Although, more positively a range of settings were represented across studies, (e.g. community, residential and secure). Some studies failed to include information on the outcomes and disposals for offences. For example, some samples only consisted of participants who were referred to a service but did not always provide details as to the reason for referral, whether it was voluntary or mandatory and whether the psychological tests used were part of the services routine assessment process. This can provide important information on the participant's reasons for compliance and if this reflects the individuals underlying attitudes towards treatment engagement etc. Such information can also help to inform future researchers cases and controls were representative.

The degree of measurement bias varied across studies but was present for all. For example, of the 14 studies included in this review, three detailed assessors who were not blind to the outcome, and two described assessors being blind to different aspects of the assessment process. For the remaining nine studies the blinding of assessors was unclear.

It is well documented that there is a relative lack of reliable and valid psychological assessment tools, which have been standardised on individuals with IDD. Therefore, some of the studies in this review attempted to develop new measures (Broxholme & Lindsay, 2003; Chung, 2002; Lindsay et al., 2007) or adapt existing measures (e.g. Gillis et al., 1998). However, it was not always clear whether these adaptations had been tested as to their ability to accurately measure the construct of interest in individuals with IDD, which may have affected the reliability of the outcome data. Respondents with IDD are more likely than individuals without IDD to have executive function deficits, memory deficits, speech, language and communication deficits (Blasingame, Creedon & Rich, 2015) and difficulty comprehending more complex language. Some of the simple adaptations described by some of the researchers such as reading out items to individuals (e.g. Steptoe et al., 2006) may not be sufficient.

When responding to self-report measures, individuals with IDD tend to acquiesce (respond to questions in the affirmative), and not respond truthfully due to a desire to please the interviewer and provide what they think is the desired response (Cummins, 1997). Individuals with IDD have also demonstrated an increased vulnerability to a suggestible response to leading questions (Clare, 1993), and therefore the use of open-ended questions is considered more appropriate.

Furthermore, some of the assessment measures detailed in this review had been normed on samples from different geographical regions and therefore there is a risk that norms participants were measured against may not be valid for that population. For example, the CBCL (Achenbach, 1991) was normed on a US sample and therefore the items on this measure may have limited applicability to children in New Zealand. Variability in demographic statistics, e.g. ethnic mix and the degree of representation in the general population results are being applied to, may render the outcome data invalid.

A major limitation in examining data collected from participant's case/police files is this type of information is 'point in time' which may be inaccurate. For example, offenders fearing a negative assessment may choose not to fully disclose the details of previous offending, negative developmental experiences or psychiatric issues, during the initial assessment. In addition, there may be considerable variation in the detail recorded by each professional due to the different clinical and professional training they received. Therefore, where documentary evidence for the presence of a variable is lacking, it may not necessarily mean that the variable of interest does not apply to that individual.

The quality assessment was hampered to a degree by the lack of information in some studies. Despite every effort being made to contact authors many quality assessment items remained unclear.

Furthermore, 2 unpublished dissertations identified in the systematic search were inaccessible in the timeframe. It is not known whether these would have met the inclusion criteria, it is, therefore, possible that their absence has introduced some bias into this review.

Conclusions and Recommendations.

This review included both published and unpublished studies from 6 different countries, minimising the influence of publication bias. All studies were treated as separate studies. The search strategy produced many duplicate references suggesting the search terms were suitably broad, reducing the possibility of relevant studies being overlooked. However, a limitation of this review is the low number of studies identified as meeting the inclusion criteria, suggesting a relative paucity of research exploring sexual offence risk factors in males with IDD.

Frequent problems encountered in the current review were the use of small, uneven samples, the lack of information on the outcomes/disposals for participants, lack of clarity on the blinding of assessors, little or no reporting on attrition, and the absence of information on important demographic variables (e.g. age & IQ). Furthermore, data collected via subjective methods, or tools not validated on IDD populations often limited the reliability of findings, limiting any conclusions that could be drawn.

What is clear is the need for higher quality research in this area. Future research studies should heed the methodological problems highlighted in the review, so as to focus efforts on producing more informative, detailed quality research aimed at identifying and evaluating risk factors in sexual offending populations. One way to do this is for researchers to develop and adapt psychological tests and measures so that they are accurately identifying and assessing the degree and severity of those risk factors shown empirically to be relevant to sexual offenders with IDD. This would help provide practitioners with a clearer picture of what variables should be attended to, when developing treatment interventions, and measuring their effectiveness at reducing recidivism in this offending population.

Chapter 3.

The Assessment and Treatment of an Adolescent Male with Limited Cognitive Ability who has Displayed Harmful Sexual Behaviour: A Case Study

Abstract

A single case study is presented of an adolescent male with limited cognitive ability and a history of harmful sexual behaviour, resident within a specialist children's home. A selection of theories incorporating a developmental and environmental approach to explain how individuals might come to sexually offend is presented. Relevant information referring to the client's background and presenting difficulties is provided. The assessment consisted of clinical interviews, file reviews, risk assessment and pre/post-intervention psychometric data. The clients' assessment results are analysed, and a bio-psychosocial formulation is proposed to guide treatment. Progress is reported with regards to intervention via a 12-week individualised programme. The client completed the intervention aimed at improving his affect identification; self-regulation and low self-esteem. The post-intervention assessment highlighted he had made some positive shifts within his identified treatment targets. Recommendations are made with the aim of further reducing risk.

Introduction

Client Introduction and Referral Details

Client D (name changed to protect anonymity) was a 15-year-old white British adolescent male, from a Romany Traveller background. As his parents were not able to meet his social, emotional and developmental needs, he was placed into residential care under Section 20 of the Children Act 1989 at the age of 13. While at this placement Client D's behaviour became increasingly sexualised and aggressive towards staff. He was reported to have persistently targeted a male member of staff with sexualised language and behaviours, (touching his bottom, grabbing his genitalia, attempting to kiss him, sitting on his lap, and inviting the member of staff to engage in sexual activities with him).

He was referred to specialist residential services in December 2012 following a physical assault on a member of staff at his residential care home, and subsequent breakdown of his placement. In early 2013 he was transferred to the current placement, a community-based residential facility specialising in the long-term care and treatment of adolescent males who have often suffered abuse, and who have perpetrated harmful sexual behaviour.

Client D had a history of physical/sexual and verbal aggression, fire setting, stealing, property damage and antisocial behaviour. He was reported to have repeatedly displayed sexualised behaviour at

school, home and in public. These included accessing sexually explicit material, sexualised language/gestures, inappropriate touching (adults, peers, and sisters), exposure, and masturbating inside and outside of his trousers when in public, at home, and in school.

On arrival at the current placement Client D was referred for a full risk and treatment needs assessment. The referral included a need to identify the nature and form his therapeutic programme should take. Given that before his arrival, Client D had repeatedly refused to participate in any therapeutic programmes aimed at addressing his social, emotional and criminogenic needs.

Ethical Considerations

The client met with the placement responsible clinician and was deemed to have the capacity to assent for his information to be used in this case study. Both Client D (a pseudonym to preserve his anonymity) and his social worker gave their written assent/consent after the nature of the case study had been fully explained to them, and they had been given sufficient time to ask questions (Appendix 8). The research agreement was read to Client D and any difficult concepts explained in full. An additional member of staff was also present during this process.

Theoretical Perspectives and Evidence Based Practice

The current study provides a single case example of an adolescent male with limited cognitive ability, who displays harmful sexual behaviour. His assessment of risk and identified treatment needs, the evaluation of his engagement and progress through his therapeutic treatment programme, and a discussion of his future treatment needs will be presented and discussed.

First, the evidence base informing treatment provision for individuals who sexually offend generally is reviewed, as evidence-based practice for interventions with adolescents who display harmful sexual behaviour draws heavily from models and theories of sexual offending more widely. However, research focusing specifically on individuals with limited cognitive ability and sexual offending must also be considered for a comprehensive formulation.

Theories of Sexual Offending

Harmful sexual behaviour in adolescents appears to have a greater association with developmental issues than sexual deviance (Rich, 2009). In recent years, theories on the aetiology sexual offending have become increasingly developmental in their focus (e.g. Marshall & Barbaree, 1990, Ward & Beech, 2006, Stinson & Becker, 2013). However, treatment approaches, especially those directed towards adolescents displaying harmful sexual behaviour, have not changed to the same degree (Creedon, 2013).

Young people with aggressive and sexualised behaviours are more likely to have experienced high levels of neglect, family violence, physical, sexual and psychological abuse (Schwartz, Cavanaugh, Prentky, & Pimental, 2006). Integrated models of sexual offending often include dysfunctional parent-child relationships (Marshall & Marshall, 2000; Ward & Seigert, 2002). More recently they have also considered the impact of neurological dysregulation resulting from insecure attachments during childhood (Stinson & Becker, 2013; Ward, Polachek & Beech, 2006) as contributory factors in the development of sexually harmful behaviour.

Marshall and Barbaree (1990) - Integrated Theory of Sexual Offending

The Integrated Theory of Sexual Offending, proposed by Marshall and Barbaree's (1990) takes a developmental approach, associating adverse early life experiences, e.g. abuse and neglect, with harmful sexual behaviour. Therefore, unlike Finkelhor's preconditions model (Finkelhor, 1984) the theory proposed by Marshall and Barbaree (1990) acknowledges that it is biological and environmental factors interacting, which makes a person vulnerable to offending sexually. Their theory suggests adverse childhood events (e.g. neglectful parenting, inconsistent or harsh discipline, physical and sexual abuse) are likely to disrupt the development of secure attachments, interpersonal skills and the ability to self-regulate. These children are likely to have difficulties with problem solving, be impulsive and

distrusting of others, have low-self efficacy and self-esteem and see themselves as unworthy.

For these young people, Marshall and Barbaree suggest the transition into adolescence is a crucial period, with templates formed during childhood influencing how the young person negotiates the challenges of adolescence. It is during puberty that an individual is most receptive to acquiring sexual scripts (e.g. what is and is not okay), and where sexual interests, preferences, and behaviour are learned. According to Marshall and Barbaree, adolescence is the time where males learn to differentiate between sex and aggression and to inhibit aggression during sexual experiences.

The theory suggests that, young people coming from adverse backgrounds are likely to be predisposed to behaving in an antisocial manner, and the increase in sex hormones experienced during puberty may cause sex and aggression to become merged, consolidating or enhancing any pre-existing sexually abusive tendencies. These young people enter puberty with deficits in the necessary confidence, self-regulation, affect identification and social skills (Marshall, Serran & Cortoni, 2000) needed to engage a person in conversation. These deficits make it difficult for the individual to acquire, develop and maintain appropriate intimate relationships with suitable others and when attempting to do so can be met with rejection, leading to lower-self-esteem, anger and negative attitudes towards females. Due to low self-confidence and limited social skills

to help them cope with such rejections, resulting negative emotions may fuel the intensity of their sexual desires, which are processed through aggressive, sadistic or deviant fantasy.

Difficulties managing sexual urges and fulfilling sexual needs using adaptive methods may cause such adolescents to engage in coercive sexual behaviours with children, seeing children as more viable and less likely to reject. Arousal through sexual contact with children or coercive sex is reinforced by the sexual gratification received by such behaviour. Sexual gratification is also likely to alleviate the individuals' negative mood states, both at the time and later when masturbating to fantasies about their abusive behaviour, reinforcing the behaviour. Engaging in sexually abusive behaviours may also provide the individual with a sense of intimacy, increased self-esteem and feelings of masculinity. According to Marshall and Barbaree's theory, any individual can be at risk of committing sexual offences. But, the more vulnerable the individual, the less likely they are to be able to cope with transient situational factors such as stress, intoxication, increased negative affect, and sexual stimuli (the presence of a victim, etc.), which may increase the chances of harmful sexual behaviour occurring.

Marshall and Barbaree's integrated theory proposes harmful sexual behaviour to be a combination of biological, psychological, and environmental factors which are interactional in nature and which might help us to understand how individuals might come to sexually

harm. The model also looks at the origins of harmful sexual behaviours and introduces the idea of vulnerability factors, which might contribute to such behaviours. The theory is clinically useful as it identifies workable treatment targets, e.g. interventions aimed at improving self-regulation, self-esteem, coping and intimacy deficits, etc. However, one criticism of the theory is that it looks at harmful sexual behaviour in general terms, so fails to provide for different typologies of sexual offender (Ward, Polaschek & Beech, 2006). The model does not adequately explain those children raised in adverse environments that do not go on to sexually harm others (Ward, Polaschek & Beech, 2006). The theory also suggests sex and aggression become fused together during the critical stage of puberty but not all sexual behaviours are aggressive with some sexual abusers perceiving their behaviour to be loving (Hudson, Ward & McCormack 1999; Ward, Loudon, Hudson & Marshall, 1995).

Ward and Beech's (2006) Integrated Theory

Ward and Beech (2006) also took a developmental approach when attempting to explain why individuals may sexually offend. In their theory, they attempt to integrate macro-level factors (e.g. evolutionary selection pressures and sociocultural factors) with individual circumstances such as genetic predispositions, childhood experiences of physical or sexual abuse, and individual differences in empathy, cognitive distortions, emotional problems, interpersonal competence and sexual interest. Ward and Beech argue that clinical problems such as emotional and social difficulties, offence-supportive

attitudes and beliefs, and sexual deviancy result from the interaction between neuropsychological impairments and external triggers in specific sociocultural contexts (e.g. stressful events such as conflict in relationships). According to Ward and Beech, emotional difficulties (including mood problems) result from deficits in impulsivity, emotion regulation, problem solving and motivation due to an impaired executive function. Areas that have been identified in the literature on sexual offending as being dynamic and static risk factors (e.g., Thornton, 2002).

Ward and Beech proposed that these emotional problems become associated with harmful sexual behaviour when individuals use sex as a maladaptive method of coping with negative affect. Social difficulties are seen to be the result of problems with attachment, whereas sexual problems, including paraphilic sexual interests and excessive sexual drive or sexual preoccupation, are the product of attachment problems, mood regulation problems, and offence-supportive attitudes and beliefs. They consider that offence supportive attitudes were likely to have formed in early life, becoming schemas through which, such individuals subsequently integrate and interpret information about women, children or sex.

A strength of this theory is that it attempts to bring together the stronger aspects of other prominent multifactorial theories into one integrated framework, while also considering neurobiological and neuropsychological dimensions. A weakness of the theory is it does

not clearly identify specific factors (e.g., what genetic predispositions are involved, how deviant sexual interests or excessive sexual preoccupations arise from the other problems they consider) to help explain sexual offending.

As noted by Seto and Lalumiere (2010) a concern of both Ward and Beech's and Marshall and Barbaree's integrated theories are the extent to which theories developed to explain adult sexual offending can also apply to adolescents who display harmful sexual behaviour. In their literature review Seto and Lalumiere operationalised and tested aspects of both theories by comparing 59 studies of adolescent male sex offenders with adolescent male non-sex offenders. From their findings Seto and Lalumiere concluded antisocial attitudes and beliefs about women or about sexual offending are not helpful in explaining why adolescents commit sexual rather than non-sexual offences. Their findings suggested that for adolescent sexual offender's social isolation played a bigger role than social skills. Emotional difficulties may also play a role, but in the case of adolescent sexual offenders, this was primarily anxiety and low self-esteem, rather than other forms of psychopathology.

Seto and Lalumiere also suggested more importance needed to be given to atypical sexual interests (e.g. an interest in prepubescent children, or in coercive sex involving peers or adults, etc.) when attempting to explain why adolescents engage in harmful sexual behaviours. In addition, their findings offered further support to the

literature that there is an association between being a victim of childhood sexual abuse (Johnson & Knight, 2000) and physical abuse (Burton & Schatz, 2003), and later sexual offending. Burton (2008) also found evidence to suggest that adolescents who sexually offend experienced physical and emotional neglect more often than non-sexually abusive delinquents. Consistent with Marshall and Barbaree's (1990) integrated theory of sexual offending, Seto and Lalumiere's findings also suggested that adolescent sex offenders were also significantly more likely to have had early exposure to sex or pornography.

The Counterfeit Deviance Hypothesis

The "Counterfeit Deviance Hypothesis" (Griffiths, Hingsburger, Hoath & Ioannou, 2013; Hingsburger, Griffiths & Quinsey, 1991) is a theory which attempts to explain how harmful sexual behaviour might have developed in a subgroup of individuals with intellectual development disorders (IDD). Within the Counterfeit Deviance theory, Griffiths, Hingsburger, Hoath and Ioannou (2013) do not deny that some sexual offenders with IDD do sexually offend due to various paraphilia, but within a subgroup of sexual offenders with IDD, they noted sexualised behaviours that masqueraded as paraphilia, but the underlying urges appeared to be absent. The authors proposed eleven hypotheses aimed at explaining sexually inappropriate behaviour within this subgroup.

Within these hypotheses, Hingsburger, Griffiths and Quinsey (1991), suggest sexual offences may occur as a result of certain environmental factors. For example, many individuals with IDD reside in sexually restrictive environments where there is a 'socio-sexual peer void' (Griffiths, Hingsburger, Hoath & Ioannou, 2013) or where the appropriate expression of sexuality is prevented resulting in limited opportunities to establish appropriate sexual relationships. Therefore, due to a lack of opportunities, such individuals may seek inappropriate sexual outlets, such as engaging in coercive sexual behaviours with caregivers and children. A lack of appropriate sex education and opportunities may also lead to low sexual knowledge and poor courtship, social and interpersonal skills resulting in a candid and frequently aggressive approach when attempting to court others. The living situation and culture of individuals with IDD often differs greatly from that experienced by the typical population (Griffiths, Hingsburger, Hoath & Ioannou, 2013), often with different moralities and social norms. Therefore, individuals with IDD may not have internalised the rules set by society and may lack an awareness of the extent to which their sexualised behaviours are socially unacceptable (Lindsay & Taylor, 2009).

In accordance with the integrated theories of sexual offending, the counterfeit deviance hypothesis also proposes a link between previous sexual victimisation and later sexual offending. In some individuals with IDD, the experience of abuse might serve as a model, influencing future harmful sexual behaviour. The counterfeit

deviance theory appears useful in explaining how developmental, environmental and systemic factors might influence individuals with IDD to offend sexually.

Assessment, Analysis and Formulation

Client D's assessment period ran from December 2013 to mid-January 2014, which involved one to one clinical interviews, behavioural observation, file information, meetings with the multidisciplinary team and completing a range of carefully selected psychometrics. The assessment process helped inform D's current and future risk of displaying harmful sexual behaviour. The assessment process was used to formulate a care programme aimed at addressing both his risk and treatment needs.

Clinical Interviews

Before the referral for individual and group Therapy, Client D participated in clinical interviewing for the purpose of history taking, but also to allow him to provide his narrative of his; criminal history (e.g. offence details); behavioural issues; abuse history; his medical and psychiatric history, and the events leading up to his transfer to the current placement. Eco-maps (Harold, Mercer & Colarossi, 1997; Hartman, 1978) were used to help Client D visually map himself in relation to the people in his life to demonstrate how near/distant, special/unimportant others were to him. Although his engagement in this work was inconsistent, these discussions were clinically useful

as they helped to provide a basis on which to build the safe space he needed for the more challenging tasks later in the assessment process. The gathering of background information relevant to Client D's developmental life experiences and difficulties this way helped to inform the origins, precipitants and maintaining influences of his psychological, interpersonal and behavioural problems (Eells, 2011) allowing for a more thorough formulation. Client D struggled to discuss sexual matters through direct questioning, becoming easily embarrassed, uncomfortable and at times distressed due to past trauma memories and difficulty regulating his emotions. Some specialist child-centred therapeutic board games were used during the clinical interviews, as these were thought to be less threatening. He found these quite enjoyable, which assisted the identification of protective factors.

To assess the presence and severity of an intellectual development disorder and to inform the selection of appropriate psychometric measures, Client D undertook a cognitive assessment using the *Wechsler Intelligence Scale for Children – Fourth UK Edition - WISC-IV* (Wechsler, 2003). He completed all ten core subtests required to obtain a full-scale intelligence quotient score (FSIQ) and four index scores. The results of this assessment are presented in Table 3.1.

Table 3.1. WISC-IV (Wechsler, 2003) Sub-Scale Scores

Scale	Composite Score	Percentile Rank	Confidence Interval (95%)	Classification
Full Scale	70	2	66-76	Borderline
Verbal Reasoning	61	0.5	57-70	Extremely Low
Perceptual Reasoning	79	8	73-88	Borderline
Working Memory	83	13	77-92	Low Average
Processing Speed	83	13	76-94	Low Average

Client D's FSIQ score of 70 placed him within the borderline range of general intellectual functioning. There were no discrepancies between the index scores and as such indicates that his abilities were equally developed. Previous research reveals that average performance in children with a diagnosis of ADHD, intellectual disability or traumatic brain injury show relative weakness on measures of working memory and processing speed (Donders & Warschausky, 1997; Jacobson, Ryan, Martin, Ewen, Mostofsky, Denckla, & Mahone, 2011; Mattison, & Mayes, 2012). In client D's case, the opposite was true, suggesting that his difficulties in attention and concentration may reflect his general level of cognitive functioning rather than being attributable to ADHD. Client D's verbal reasoning scores were extremely low and could be due to a poor learning environment during his early years and his frequent truancy rather than due to cognitive deficits. Client D's low self-esteem may also have had a negative influence on his scores.

Psychometrics

Psychometric evaluation was undertaken to gain a fuller understanding of Client D's experiences and current problems, to direct the focus of the individual component of the intervention, to optimise responsivity (Andrews, 1995; Bonta & Andrews, 2007) to individual treatment needs and to evaluate treatment effectiveness. The measures selected for Client D's baseline assessment were identified based on an initial formulation from his case history, his reading age (approximately 8-9 years), and his general presentation and level of functioning.

To better understand Client D's psychosocial functioning, three measures were selected from the Adolescent Sexual Abuser Schedule (A.S.A.P), (Beckett, Gerhold & Brown, 2002) test battery. The A.S.A.P is a standardised set of specialist psychometric measures developed to assess the psychological characteristics of adolescents who have sexually harmed, in terms of their psychological functioning, as well as their attitudes and beliefs related to sexual matters. The measures within the A.S.A.P have been normed on samples of British adolescent non-offending and offending males and have demonstrated sufficient to good levels of reliability and validity. To measure Client D's attitudes, knowledge and beliefs related to sexual matters he completed six measures. These included three pilot and un-validated, questionnaires developed for adolescents with limited cognitive ability. The areas covered by these questionnaires included attitudes towards Children & Sex, Indecent Exposure, and

Peer Sexual Assault (LD Working Group, 2012). To assess multiple aspects of Client D's mental health three measures were selected to; explore healthy development and resilience, to compare different perspectives on Client D's competencies, behaviours and problems; and to establish if he was currently experiencing any symptoms of trauma. Twelve measures were administered in total. Where appropriate items were read out to him and any difficult words explained. The outcome assessments selected are given in Table 3.2.

Social and Psychosexual Development

Client D was born into a large family and is the third of 6 children. He has two older sisters, his eldest sister lives with his mum and his next oldest sister resided in a mother and baby unit. His two younger brothers and one younger sister were all living in foster care. Client D experienced significant neglect, verbal, physical and emotional abuse. His childhood environment was chaotic, characterised by poor boundary setting, and frequent displays of aggression between family members. He witnessed repeated episodes of domestic violence between his mother and father, and after they separated, between his mother and her new partner. There was some evidence of domestic violence directed towards Client D, and between Client D and his siblings. Both his father and his mother's subsequent partner had extensive histories of criminal convictions involving Class A and B drugs and armed robbery. Client D's father regularly abused alcohol and had been in and out of prison for most of Client D's life. He was also alleged to have raped a

Table 3.2. List of Psychometric Measures

To measure Client D's psycho-social functioning:

- The Personal Reaction Inventory – PRI (Greenwald & Satow, 1970)
- The Interpersonal Reactivity Index- IRI (Davis, 1980)
- The Children's Assertive Behaviour Scale – CABS (Michelson & Wood, 1982).

To measure Client D's Attitudes and Beliefs related to his Harmful Sexual Behaviour:

- The Sexual Knowledge and Beliefs (SKB), and Social Sexual Desirability (SSD) sub-scales of the Multiphasic Sex Inventory Juvenile Male Form– MSI J (Nichols & Molinder, 1984).
- Attitudes Towards Sexual Behaviour with Children – ASB-Children (LD Working Group, 2012).
- Attitudes Towards Indecent Exposure – AI-Exposure (LD Working Group, 2012)
- Peer Assault (LD, Working Group 2012)

To measure Client D's sexual knowledge:

- The Knowledge Test component of the Assessment of Sexual Knowledge (ASK) test battery (Butler, Leighton & Galea, 2003).

To measure Client D's Mental Health

- The Trauma Centred Checklist for Children – TSCC (Briere, 1996)
- The Resiliency Scales for Children and Adolescents (Prince-Embury, 2005).
- The Achenbach System of Empirically Based Assessment - ASEBA (Achenbach, 2002), a Teachers self-report, a parent/carer's self-report and his own self-report – different perspectives compared.

Full descriptions of the above scales and their psychometric properties can be found in Appendix 9.

female. His mother was severely learning disabled and observed to use obscene language when disciplining the children.

Client D and his siblings were allowed to socialise with 'undesirable teenagers and adults'. He was described as being easily led and considered vulnerable to sexual exploitation as a result of his limited sexual knowledge and lack of understanding regarding appropriate socio-sexual boundaries.

At the age of 12 Client D was spending a lot of time with his adult male cousin, who had been arrested for the alleged rape and mutilation of a horse, (Client D's cousin was subsequently sentenced for this).

During a home visit a parenting support worker was told that Client D had been exhibiting persistent sexualised behaviour and was both physical and verbally abusive towards his siblings. He was reported to be openly masturbating in public, at school and at home in front of his 3-year-old sister and had exposed himself to an elderly couple. He was regularly using sexualised language (e.g. 'I've got a boner and it's wet', 'Gary glitter is going to fuck your cunt') and making paedophile jokes and was reported to being obsessed with Gary Glitter. Around the same time social service received an anonymous call that Client D's 14-year-old sister was having sex with adult males in the family home and was pregnant. Client D's younger sister (aged 3 yrs.) reported that Client D would regularly stroke her

on the bottom, she had speech delay and was considered particularly vulnerable to harm from Client D.

At the age of 12 whilst travelling on a train he was reported to have rubbed himself, giving himself an erection and then stroking a staff member's bottom. Client D's sister who observed the behaviour was reported to have told the staff member that Client D does this to her, her other sister and to her boyfriend. Client D was reported to have rubbed himself inappropriately whilst in a hospital waiting area and to have repeated this the same day on the train journey home. He was also reported to have masturbated in a graveyard, and to have displayed sexualised behaviour with a variety of people, including his younger sister (aged 3 at the time).

Whilst visiting the family home, a Teenage Pregnancy Advisor reported that Client D had come into the lounge wearing just a towel wrapped around his waist. He stood behind the chair where his mother was sitting and began to rub himself from side to side. His mother ordered him to leave the room and get dressed which he chose to ignore and instead came out from behind the chair waving the towel around. Client D is also reported to have stated, "I have had sex with a man and when standing near to a female teacher shouted, "she's gonna rape me". A Police Community Support Officer overheard Client D's mother's partner saying that the older boy (thought to mean Client D) was abusing the younger children,

however no further details are known as to the nature of the alleged abuse.

At the age of 13 whilst in the community Client D was reported to have made inappropriate sexual gestures with both his hands and a pool cue towards staff and a young couple playing pool on the table next to him. He is reported to have persistently targeted one male staff member at his previous placement with his sexualised behaviour, such as touching the staff members backside, attempting to kiss him and constant touching. Client D is also reported to have said that he would either fuck the member of staff up the arse, or that he had been subjected to those activities by the member of staff. Client D is reported to have exposed himself in front of others by lifting his top up and pulling his trousers down. He has attempted to grab a member of staff's genital area, tried to sit on his lap, and taken his top off and asked the staff member to suck his nipples.

He is reported to have offered a female member of staff sex, and to have asked her to come in his room at night. The same day, Client D was reported to have advised staff that he had a 'boner' and to have asked staff if they wanted to see it. He is also reported to have then put his hands near his genitals and made a gesture to indicate he had measured the length of his penis, and then say to a staff member that he would suck his fingers. He was reported to have then walked over to speak to a girl (aged approx. 12 years) whom

he claimed was his girlfriend, the then proceeded to ask the girl about how another boy had raped her.

Due to limited self-regulation skills, Client D has been described as impulsive, antisocial, unpredictable, reactive and as having inadequate social skills, resulting in frequent problems in his relationships with both adults and peers.

Education History

Client D had a long history of repeated episode of truancy from school. He had also experienced a number of exclusions for bullying, and for one incident when he had taken a pen knife to school. At the age of 12 years and 4 months, Client D was reported to have a reading age of 7 years and 1 month. He was working at National Curriculum level 2b in Literacy, and at level 3c in Maths and Science. He had average non-verbal reasoning skills, some phonic knowledge and a basic sight vocabulary, but tended to avoid reading. He received a statement of Special Educational Needs relating to literacy and numeracy skills; attention and concentration; social skills; behaviour; and self-esteem. He has significant difficulty with attention and finds it difficult to listen without interrupting and will often call out in class. With prompts, he was able engage for up to 20 minutes, but very easily distracted and struggled to re-focus. His mother requested that he be formally assessed for Attention Deficit Hyperactivity Disorder (ADHD). In school, he reported finding lessons too long and to feeling like he was "not good at anything".

When in the right frame of mind, he was able to work hard and accept support; although there were times when he struggled to accept help and his learning was on his terms or he refused to engage all together.

Prior to being accommodated, he was permanently excluded from his mainstream school for stealing a mobile phone and was without an identified education provision for the new school term. While in mainstream school he reported feeling like an outsider and being teased by his peers. On entering residential care, he was provided with home tuition in Maths and English for 2 hours per week, as on-site education was not available. As a result, he had not been in full time or mainstream education for a period of 2 years.

Drug/Alcohol History

Client D grew up in an environment where alcohol and cannabis were used regularly by both family and friends. He reported he had smoked cannabis, magic mushroom tea, and 'puff'. He said he had taken pills, but did not elaborate on this, and that he had once tried cocaine. While in the last placement he was alleged to have contacted a drug dealer in the local area. He also reported drinking alcohol (spirits, Beer and Cider) regularly and would approach others to buy alcohol on his behalf.

Medical/Psychiatric History

Client D presented with significant situational anxiety, which interfered with the educational and social application of himself. He was reported to suffer from persistent low mood and ideas of low self-worth and had told staff at his previous placement that he wanted to kill himself and that he had considered opening the car door at speed while travelling. Client D said he wanted help with his thoughts and feelings as he had difficulty controlling his behaviour when emotionally aroused. He reported there were times he had difficulty recalling the events of his violent episodes, stating that when he reached a certain point, 'all he saw was black'. Staff observations suggested that at such times his eyes were noticed to be glazed and piercing, his forehead creased, and had difficulty hearing others.

Client D took part in an assessment for Attention Deficit and Hyperactivity Disorder – ADHD. The outcome of this assessment indicated he experienced significant difficulties with attention, concentration, hyperactivity and impulsivity. However, when interested and stimulated, he could focus his attention and filter out distracting information. His Responsible Clinician thought that his ADHD type symptoms, challenging behaviours, high levels of anxiety and constant state of arousal appeared to be more typical of a Developmental Trauma Disorder.

He was prescribed the selective serotonin reuptake inhibitor (SSRI) Sertraline to help level out his mood and manage some of his ADHD type symptoms. His compliance with his medication was inconsistent.

Forensic History

Client D does not currently have any criminal convictions. He has demonstrated delinquent behaviours from a young age, including, smashing windows, setting bins on fire, stealing a car and setting fire to it, vandalism (spray painting trains), physical fights with peers, and taking a pen knife to school.

At the age of 11 years, he was arrested and placed on Bail for an alleged racist attack. He was accused of spitting on an Asian females' face. Following investigations there was little evidence to support the allegation, and the charges were dropped. At 12 yrs. of age Client D was arrested for assault and robbery. He was reported to have 'beat up' a man and stole his i-phone. As a result, he was placed on police bail pending investigations and subsequently made subject to an Anti-Social behaviour agreement.

At the age of 13 Client D physically assaulted the manager at his care home, he reported he was protecting another resident. He was subsequently placed on bail while the police carried out their investigation. This resulted in the breakdown of his placement and his referral to specialist forensic residential services. Client D does

not have an Index offence as such but has demonstrated an escalation in his violent, aggressive, sexualised and delinquent/ criminal behaviours which started from a young age.

Risk Assessment

Client D's risk of sexual offence recidivism was assessed using the Estimate of Risk of Adolescent Sexual Offence Recidivism V 2.0 – ERASOR (Worling & Curwin, 2001). The outcome of his risk assessment was also used to inform his formulation and identify treatment needs. The ERASOR is an empirically guided checklist aimed at guiding evaluators towards an estimate of the short-term risk (next 12 months) of a sexual recidivism for young people aged 12-18 years of age. The tool comprises of 25 risk items across 5 categories.

Due to Client D's observed distress when directly questioned about sexual matters he was not asked to participate in his ERASOR assessment. Items were informed from his referral information, incident reports, his case file, his pre-intervention psychometric assessment and other collateral information. ERASOR Interviews were also conducted with his Head Teacher at school and his Key Residential Worker.

The outcome of Client D's ERASOR indicated he presented with a moderate level of concern with respect to his potential to re-offend

sexually, as 16 out of a possible 25 high-risk factors were present, 3 were possibly or partially present, and 6 were rated as not present (a list of all the ERASOR items, along with evidence for ratings are presented in Appendix 10).

On considering his past sexually harmful behaviour it was considered likely that his potential range of victims would be diverse, including younger children, peers or adults known to him, particularly male members of staff he felt close to. Given Client D's high level of impulsivity, learning and emotional regulation difficulties it seemed likely his sexually harmful behaviour had been opportunistic in nature; although it had not been possible to ascertain whether there had been some element of planning involved

Formulation

An integrative psychological formulation was developed using the 5-p's model (Weerasekera, 1996) which used Client D's *presenting factors, predisposing factors, precipitating factors, perpetuating factors, and protective factors* to both summarise and attempt to explain his difficulties.

The framework was considered to have utility as it allows practitioners to think about their clients in terms of their biological, psychological and social factors, linking a clinical problem to its origins, development and maintenance, thus conceptualising the overall experiences of an individual. The model also aims to help the

practitioner to develop a hypothesis to help explain their clients presenting problems via the links between the different features of a client's presentation, to develop individualised and targeted interventions aimed at promoting change.

Presenting Difficulties

Due to Client D's early life experiences and cognitive impairments, he developed psychological vulnerabilities which affected his social, emotional, and moral development. When emotionally aroused, he found it difficult to focus his attention and manage himself adaptively. Client D tended to externalise his difficult feelings by threatening, bullying and intimidating others; swearing, damaging property, slamming doors and being verbally, physically and sexually aggressive. He invaded people's personal space and would 'square up' to them and has attempted to provoke others to retaliate. The context he was in heavily influenced his level of emotional arousal and behaviour, and his ability to effectively self-regulate was very limited. Client D was confused about his feelings towards males and tended to target and become aggressive and sexualised towards male members of his care team when he experienced heightened levels of arousal.

Client D presented with low self-efficacy, he lacked confidence in his ability to achieve his goals and maintain safe behaviour. This was demonstrated by his unpredictable behaviour, his persistent low mood, and apparent hopelessness or apathy after he had displayed

challenging behaviours. Client D had engaged in inappropriate and sexualised behaviour from a young age, towards adults, peers, and his sisters. He was described as 'easily led' and considered vulnerable from sexual exploitation as a result of his limited sexual knowledge and understanding of appropriate socio-sexual boundaries.

Predisposing Factors

Client D's early childhood was spent in a chaotic household where he experienced inconsistent parenting and poor boundary setting. His early relationships precluded the nurturing and predictable environment important for the development of self-regulation and adaptive coping. He experienced neglectful and frightening parenting and was exposed to violence within his mother's relationships and as a victim himself, from his father and his mother's subsequent partner. His prolonged exposure to such incidents had significantly contributed towards his Developmental Trauma Disorder (Van der Kolk, 2005), which profoundly affected his level of functioning in many areas. Client D was socially anxious and isolated from a very young age and was vulnerable to the influences and modelling of family members, pro-criminal attitudes and anti-social behaviours related to the use of violence, drugs, and alcohol. His early life experiences impacted on how he saw himself, others and the world. Such beliefs included feeling worthless and unwanted, that others were likely to hurt or abuse him, could not take care of him or

protect him from harm, could not meet his emotional and physical needs and were unreliable and unable to support him emotionally.

Client D's early life experiences were instrumental in the development of his feelings of powerlessness, distrust and suspiciousness of others, low self-confidence and self-esteem, poor coping and problem-solving skills and difficulties with self-soothing. These difficulties led him to employ maladaptive methods of coping with his difficult emotions and negative view of himself. These included drugs, alcohol, violence towards others, destruction of property, self-harm and engaging in problematic and harmful sexual behaviours.

Precipitating Factors

Client D's difficulties with communication, concentration, attention, changes to his routine, responding to new challenges and low tolerance to boredom increased his anxieties and heightened his levels of tension. Due to his high levels of arousal and difficulty tolerating and internally reducing his negative emotional states, these precipitating factors have resulted in sudden outbursts of anger, which due to his poor inhibitory control, cause him to lash out and rapidly become physically aggressive and sexually abusive.

Client D's aggressive and abusive behaviours were most likely triggered when he perceived others as being critical of him, rejecting or abandoning him, triggering his core beliefs that he is worthless and that others are out to get him, cannot be relied upon, and

cannot be trusted. Client D's aggressive and abusive behaviours are triggered when he perceives others intentions as controlling, or when he is attempting to avoid situations where he feels powerless, vulnerable, fearful or threatened by others, or needing to protect himself. In such circumstances, his aggressive/abusive behaviours provide him with a temporary sense of power and control.

Client D's limited cognitive ability and Developmental Trauma Disorder are likely to have contributed to his difficulties with distress tolerance and his extreme negative response to perceived trauma-related stimuli. As suggested by Briere and Lanktree (2011) Client D's physical and sexual aggression towards others may represent coping responses to trauma, which they refer to as 'tension reduction behaviours (Briere, 1996, 2002). Client D's engagement in physical aggression and harmful sexual behaviour being a means by which he can distract, soothe, avoid or reduce his on-going or triggered trauma-related dysphoria.

Perpetuating Factors.

Client D's problems are likely to have been maintained by his low self-confidence and self-esteem, negative beliefs about himself, insecure attachments and his many fears. His lack of openness on sexual matters; his questionable level of sexual knowledge; limited understanding of appropriate social and sexual boundaries; intimacy deficits; attitudes supportive of violence and sexual offending are also likely to be maintaining factors. His hyper-vigilance, hostile

attribution bias, difficulties with affect-regulation and asserting himself appropriately have made it difficult for him to maintain an emotional equilibrium, resulting in high levels of arousal and anxiety, which were further exacerbated by his low distress tolerance.

Due to his problem-solving deficits, Client D learnt he could get his needs met by being aggressive towards others. Whether this was for material gain (e.g. stealing a mobile phone), to get what he wanted (e.g. sexual gratification, to alleviate negative affect and provide a sense of power and control), to avoid trauma related dysphoria, or for (perceived) self-protection. Such outcomes reinforced and increased the likelihood of these behaviours reoccurring.

Protective Factors

Observations of Client D suggested he could be friendly, thoughtful, polite, and at times willing to help others. He demonstrated some ability to express general empathy for others and to see things from other people's perspectives and was reported to respond well to praise and rewards. When in the right frame of mind, he demonstrated an ability to work hard and to accept support from others. He was observed to respond well and to develop positive relationships with those members of his care team who had shown a genuine interest in him and had devoted time to working with him. On occasion, he could be open and provide his care team with his general thoughts and feelings. He was observed to respond positively to highly structured, stable, nurturing, and low arousal

environments and responding well to a calm authoritative and patient communication style. He had also taken responsibility for some of the harmful sexual behaviours he perpetrated. He has managed to maintain contact with his parents and older sisters through regular telephone calls and visits.

Treatment Needs Analysis

Client D's assessment, psychometric measures, risk assessment, (particularly the dynamic risk factors identified as being present in his ERASOR), and formulation identified several treatment targets, these are summarised in Table 3.3.

Due to Client D's difficulties regulating his emotions, he engaged in frequent displays of verbal and physical aggression, often resulting in property damage and assaultive behaviours towards staff and peers. As a result, and given his large size, his peers reported finding him intimidating, and were rejecting of him, making it difficult for him to establish and maintain any interpersonal relationships with his peers. It was considered imperative by his multi-disciplinary team that he improve his capacity for self-regulation and his ability to form and maintain appropriate positive relationships with his peers to prevent him from becoming socially isolated, withdrawn and emotionally lonely. The intervention work undertaken in the current case study focused on the Emotional Awareness area of his identified treatment needs.

Table 3.3. Client D's Identified Treatment Needs

<p>Emotional Awareness</p>	<p>A therapeutic program consisting of 12 one-hour weekly sessions designed for young males who may have experienced early life abuse and neglect and who have gone on to act out in a sexually harmful way. The focus is on expanding the young person's capacity to regulate and tolerate their emotions while providing a predictable and safe environment to increase his emotional awareness and literacy. The intervention aims to see individual improvements and supports opportunities for growth in the areas of cognition, attunement, and identity and self-concept in relation to emotional awareness and regulation. Within the 12-week programme, Client D will learn an array of techniques to support emotional regulation and identify personally effective strategies to establish a sense of safety and competency within himself. This programme of work will also aim to introduce him gently to the placements therapeutic group work programs which incrementally expand and build on this first step for recovery from developmental trauma.</p>
<p>Therapeutic Life Story Work.</p>	<p>The aims of this work would be to assist him to structure his memories visually and to allow him to start to process the associated thoughts and feelings. The work will also help him to share some of his more difficult feelings such as his fear of rejection, hopelessness, feelings of inferiority and worthlessness. The work will also provide him with a framework of understanding concerning the likely aetiology of his harmful sexual behaviour.</p>
<p>Sex and Relationships Education and Social Sexual Boundaries</p>	<p>To improve his understanding of appropriate sexual behaviour, focusing on specific areas of need such as how to form and maintain intimate and non-intimate relationships, personal space boundaries, sexuality, and consent. Teaching him rules for understanding social cues; use social stories in written or comic strip form on what to expect in certain situations and why; and then relating this learning to some of his own examples of past and present social situations would be of benefit, as will exploring the 'grey' areas where the rules are less clear. Client D's attitudes and beliefs about sex and relationships and the possible influence of pornography on these should be explored. Given Client D's potential vulnerability enhancing his knowledge regarding sexual exploitation and how to keep himself safe will be important to cover.</p>

Table 3.3. Client D's Identified Treatment Needs Cont.

<p>Social Competency Group</p>	<p>A groupwork programme which has been specifically developed to address social deficits found to be characteristic of many young people who display sexually harmful behaviour. Introducing both the Good Lives Model (Ward, Mann & Gannon, 2007) and the Cognitive Behavioural Therapy - CBT (Beck, 2011) model of working, the group provides the young people with the motivation and opportunity to advance their social skills through developing a greater self-awareness, positive self-esteem and resiliency, perspective taking skills, problem-solving and consequential thinking and improve conflict resolution skills. The group will allow Client D to consider, identify and evaluate how his beliefs impact upon and continue to affect his behavioural and emotional responses before this is specifically targeted within an offence context in the offence focused group. It is a weekly rolling programme, with a minimum of 12 weeks and a maximum of 24 weeks. Each session runs for 1.5 hours.</p>
<p>Independence</p>	<p>To provide him with more opportunities to take positive control over aspects of his life, which includes decisions about his future so that his need to take control in an unhealthy manner is reduced. This would include life skills as well as steps to gradually reduce his supervision and monitoring.</p>
<p>Offence Focused Group</p>	<p>To undertake an intervention focused on Harmful Sexual Behaviour. The aim of this would be to increase his insight into the triggers to his harmful sexual behaviour. He will need to be assisted to explore and challenge his thinking regarding his harmful sexual behaviour, as well as other contexts of sexual harm. A combination of group work and individual therapy is likely to produce the best outcomes for Client D. Group work provides a context where young people can work openly alongside their peers who have similar issues and can help develop his skills and confidence in interacting with his peers. Individual therapy allows for deeper exploration of more personal information such as the content of sexual fantasy. For Client D, exposing his feelings in front of others is likely to be quite difficult therefore it is imperative that this managed carefully by the facilitators undertaking the group work element of his treatment. Modules of work</p>

Table 3.3. Client D's Identified Treatment Needs Cont.

<p>Offence Focused Group Cont.</p>	<p>include: Relationships; Sexual Exploitation; Self-Regulation; Victim Empathy; Sex & the Law; Pre-conditions using Finkelhor's (1984) concrete and visual model to provide a framework of understanding as to why people engage in harmful sexual behaviours and to make connections with own experiences. There are a number of bolt-on modules, for example, Passive and Active thinking (which covers attribution of responsibility) which can be added to each individual's programme, according to their individual needs. It is likely that Client D would benefit from completing all of these given the complexity of his treatment needs. The programme is comprehensive and employs various approaches to assist the group members to engage in intense levels of work relating to their own sexually harmful behaviour. It also incorporates sessions dedicated to the continuing development of each individual's 'Good Life' plan (Ward, 2003).</p>
<p>Relapse Prevention</p>	<p>To be supported to develop a comprehensive relapse prevention plan, which includes identification of his risky thoughts, feelings, behaviours, and situations, as well as strategies and skills he can implement to avoid the negative pathway towards harmful sexual behaviour, to help him achieve a successful life. This can be achieved using the Good Lives principles (Ward, Mann & Gannon, 2007) to develop a prosocial plan of how his needs can be met in the future and identifying anything else that would need to be put in place to help him achieve these goals.</p>

Therefore, until Client D's emotional and behaviour difficulties stabilised, it was decided that therapeutic interventions in the first instance be conducted on a one to one basis rather than through group work. In addition, as suggested by Cloitre et al. (2010), it was considered important that he undertake an intervention aimed at improving his affect-identification and emotion regulation to help improve his ability to cope and engage with the trauma and offence focused work he would undertake later on in his therapeutic treatment programme.

Intervention

Programme Description and Suitability

It has been suggested that deficits in emotion regulation and self-soothing are associated with dynamic risk of sexual offending and recidivism (Beech & Ward, 2004; Mann, Hanson and Thornton, 2010; Ross, 2007; Thornton, 2002). The literature on emotion regulation in adolescents identifies the quality, intensity and management of emotional states as more important than the investigation of experienced emotions (Zeman, Cassano, Perry-Parrish & Stegall, 2006). Teaching and promoting emotional awareness in young people can strengthen the neural pathways associated with pro-social behaviours. In Addition, by engaging in repetitive activities aimed at improving and promoting young people's perspective-taking abilities, their habitual responses to problem-solving, and overall coping with

difficult situations has also been shown to have improved (Davidson, Putnam & Larson, 2000).

The experience of fear can significantly impact on people's behaviour, resulting in freeze response, a fight response directed towards that which has evoked the emotion, or induce a flight response in an attempt to escape the fear-inducing circumstance (Cannon 1932; Jansen, Van Nguyen, Karpitskiy, Mettenleiter & Loewy, 1995).

Traumatized individuals who have grown up in chaotic environments are more likely to exhibit chronic symptoms of "stress" and "anxiety" (Perry, Pollard, Blakley, Baker, Vigilante, 1995), thus creating the sense of a "destructive identity", where states become traits (Perry et al., 1995). A vast amount of literature on learning theory, human physiology and neuropsychology, suggests that as a result of the excessive use of neurocircuits in charge of responding to threat, the often-fearsome brain habituates to perceived threats, even where there is none. This self-perpetuating bio-psycho-social cycle is difficult to break, making them hypervigilant and more responsive to perceived threats, resulting in increased sensitivity and easily trigger freeze fight, flight response in the presence of relatively minor stimulation. However, evidence suggests that a multi-faceted approach to treating trauma-related emotional regulation deficits can be beneficial and effective (Cook, Spinazzola, Ford, Lanktree, Blaustein, Cloitre, DeRosa, Hubbard, Kagan, Liataud, Mallah, 2005).

The individual sessions were constructed from The Attachment and Self-Regulation and Competence – ‘ARC’ treatment framework (Blaustein & Kinniburgh, 2010). The focus was on expanding Client D capacity to regulate and tolerate his emotions while providing him with a predictable and safe environment to increase his emotional awareness and literacy. The intervention supported opportunities for growth in the areas of cognition, attunement, and identity and self-concept in relation to emotional awareness and regulation. Within the 12-week programme, Client D was provided with techniques to support emotional regulation and to identify personally effective strategies to establish a sense of safety and competency within himself.

The approach was mostly psycho-educational in focus incorporating teaching on the fight, flight, freeze response associated with increased arousal and how due to past adverse experiences this alarm might be easily triggered or be overactive in some young people. This was to help Client D recognise what triggers his alarm so that he could start to differentiate real danger from false alarms.

Other topic areas included helping him to identify, differentiate, describe, measure and monitor his feelings, and to improve his understanding of how feelings can be affected by different events both positive and negative, and how to manage these feelings in adaptive ways. Using the Communication in Print Software Resource feelings cards were created depicting a range of emotional

expressions to help Client D in this work and to help him also recognise the of emotions of others.

Worksheets containing body maps were designed to help Client D identify where in the body he felt his emotions, and their associated physiological sensations. A simple cognitive behaviour therapy 'Hot Cross Bun' visual model (Padesky & Mooney, 1990) was also incorporated into the session with the aim of helping Client D to understand how his thoughts, feelings and bodily sensations influence his behaviour. Some exercises encouraging mentalisation (Allen & Fonagy, 2006) were also incorporated into the programme. This was with the aim of improving Client D's ability to understand and interpret mental states in himself and others. Mindfulness has also been shown to improve healthy self-regulation and reductions in perceived stress amongst adolescent offenders (Howells, Tennant, Day & Elmer, 2011) and to improve symptoms of anxiety, depression, and somatic distress while also improving self-esteem (Biegel, Brown, Shapiro & Schubert, 2009). Therefore, mindfulness and relaxation techniques were also incorporated into the end of session to help Client D focus his awareness on his body and to help him achieve a sense of calm and relaxation at the end of sessions with the aim of reducing any distress by having a calming and positive effect on his body and emotions.

The intervention was delivered over a period of twelve weeks and was provided on a one to one basis. Sessions ran for 1 hour each week. Client D was also provided with visual representations, such

as laminated cue cards to act as prompts and to remind him of the skills and strategies he had acquired across the course of this therapeutic Intervention. The sessions were structured as follows:

Sessions 1 - 4

Start by engaging him in a rhythmic activity (e.g. rhythmic ball throwing, or tapping, beat boxing or rap) to help him regulate his emotional state and to help him focus on the session.

Therapeutic Board Game, 'The Ungame' (Zackich, 1972). A non-competitive learning and communication board game, which "fosters listening skills as well as self-expression". Psychoeducation about affect identification resource (Blaustein & Kinniburgh, 2010, Chapter 8, pgs. 122 to 123). Everyone has feelings. Feelings come from Somewhere. It's not always easy to know what we feel. There are cues that can tell us what we are feeling. It's important to be a feeling detective. Activity 1, 2 and 3 from the Feelings Cards Exercise Sheet (Appendix 12).

Resources: Soft Juggling balls. Feelings Cards, Feelings Thermometer, Body Map, flipchart and pens. Stress ball. About my feelings worksheet. What are they feeling? Worksheet. Tuning into feelings worksheet. Where do I feel (emotions body map with emotions key)? Noticing my Feelings Diary worksheet. Checking my pulse. Progressive muscle relaxation exercise. Feelings Cards Exercises Sheet.

Sessions 5 – 8.

Start by engaging him in a rhythmic activity (e.g. rhythmic ball throwing, or tapping, beat boxing or rap) to help him regulate his emotional state and to help him focus on the session.

Psychoeducation on understanding feelings/triggers - The body's alarm system and the trauma response and triggers. To understand the impact of the trauma response on their current emotional reactions (Blaustein & Kinniburgh, 2010, Chapter 8, pgs. 123 - 126). This includes understanding the normative danger response (fight or flight). To be able to link the danger response to increased arousal. The overactive alarm (the fight or flight response, when it goes off too often due to chronic or extreme exposure to danger). Triggers, how triggers manifest and building his recognition of his triggers. Activity 4 and 5 from the Feelings Cards Exercise Sheet (Appendix 12) .

To be able to recognise that he can feel more than one emotion at a time and to be able to differentiate, identify and express these emotions and rate the intensity of these, using feelings cards, feelings thermometer, and to identify where these are felt in his body using body maps.

Resources: Soft Juggling balls. Feelings Cards. Feelings Thermometer. Body Map with emotions key. The Body Alarm System worksheet. My Body's Alarm System worksheet. My False Alarm

Goes off When.... Worksheet. Identifying Triggers worksheet. My Non-verbal cues worksheet. Flip chart and pens. Stress ball. Feelings Cards Exercises Sheet.

Sessions 9-12

Start by engaging him in a rhythmic activity (e.g. rhythmic ball throwing, or tapping, beat boxing or rap) to help him regulate his emotional state and to help him focus on the session.

Psychoeducation on Managing feelings comfortably and effectively (Blaustein & Kinniburgh, 2010, Chapter 9, pgs. 141-145).

Normalising and teaching the concept of energy. Linking energy with feelings. Understanding "comfort zone", and that some energy levels feel more comfortable than others. Understanding the role of context and how it will affect how effective our energy level is.

Building a sense of control over affect regulation. Creating Feelings Toolboxes (e.g. tools aimed at promoting effective affect regulation, such as deep breathing, a picture of a safe space, progressive muscle relaxation, grounding exercises, pleasant smells, physical exercise, activities that can be engaged in, and positive things to think about.

Resources: Soft Juggling balls. Feelings Cards. Feelings Thermometer. Body Map. Shoe box. Magazines/craft/writing materials. Progressive muscle relaxation script. Grounding cue cards. Breathing exercises. Coping strategy cue cards. Scratch and sniff

stickers. Strategies for self-soothing. Positive affirmations jar and cue cards.

Presentation and Engagement

In his first session Client D engaged well with the material. Using the Ungame was a good ice breaker and allowed a more serious exchange of thoughts, feelings and ideas. He worked hard to provide answers and his demeanour suggested he wanted to do well. His responding appeared open and appropriate. During the psychometric assessment Client D expressed being a fan of Rap music and would spontaneously construct raps commentating on what we were covering in the session. These were repetitive and rhythmic in nature. Such rhythmic activities have been demonstrated to assist children with developmental trauma, to move from high emotional states to calmer more cognitive states (Perry, 2014). Therefore, in collaboration with Client D it was agreed that to help him relax and be better able to focus that at the start each session he would engage in a rhythmic exercise, e.g. perform a rap or take part in a rhythmic ball throwing activity, during which he could express his current feelings and emotional experiences over the previous week. After these exercises, he would be encouraged to use his feelings cards to label the emotions he had experienced over the week, rating their intensity, low = 1, to high= 5 via a visual 'feelings thermometer'.

There were many times where Client D would arrive to the session in a highly aroused, deregulated or distressed state. Employing these rhythmic techniques early in the session often proved helpful in reducing his arousal and helping him to re-regulate and focus on the intervention.

In the early stage of the work Client D was often observed as struggling to respond when asked to identify his current emotions, in contrast he was always quick and better able to relay his thoughts, suggesting a better awareness of these. To help him identify his emotions he was first asked to label what he was thinking about. Once he had labelled his thoughts, he would then find it much easier to identify the associated feelings, a method of working that appeared to be effective throughout the intervention. Again, in the early stages of the intervention Client D had difficulty identifying the emotion of anxiety in himself and others and appeared to have a very limited vocabulary when describing the emotion 'Anger', which meant he would often describe the intensity of his anger as either being very low, or extremely high with little or no labelling of the incremental stages in between. To help develop his emotional vocabulary (e.g. naming five or six anger related emotions with more subtle changes in their range of intensity) we explored the situations that might lead him to become irritated, frustrated, or angry and where in the body these emotions might be felt at their different intensities. As the intervention progressed Client D's affect identification skills were observed to improve. He became better at

differentiating his feelings and recognising it was possible to feel a range of emotions at any one time.

Due to his constant high state of arousal, Client D had more difficulty engaging in the written work (completion of worksheets) and in the mindfulness and relaxation exercises and was observed finding it quite difficult to calm himself and remain in a seated position. To help him we first employed some diaphragmatic and deep breathing exercises which have been shown to produce a calming effect on the body and the autonomic nervous system (Briere & Scott, 2014). He was willing to engage in progressive muscle relaxation exercises (Bernstein & Borkovec, 1973; McCallie, Blum & Hood, 2006) which have been shown to reduce anxiety in a range of medical, and psychological conditions (Jorm, Christensen, Griffiths, Parslow, Rodgers & Blewitt, 2004). He appeared to find these most beneficial in helping him achieve a relaxed state and in relieving his levels of tension and anxiety.

Due to his persistent low mood and negative beliefs about himself, Client D found it difficult engaging in the 'creating a toolbox' activities, in particular the self-esteem building exercises (e.g. taking a jar and filling it with positive affirmations about himself, which he can draw from to pick him up when he is feeling down). At first, he struggled to identify any positive qualities in himself. To help him with this work he was set the task of speaking to those people close to him (e.g. family, staff, friends) to ascertain what they thought his

positive qualities were, to then write these down and bring these with him next session. The following week Client D was able to fill his jar with the positive comments he had collected. He reported being surprised about the number of positive qualities people had identified within him and had prompted him to write a rap about how the exercise had made him feel proud and worthwhile.

Responsivity Issues

Due to Client D's learning difficulties, the intervention was structured in accordance with the Responsivity Principle (Andrews, 1995; 2012; Andrews & Bonta, 2010; Bonta & Andrews, 2007). Almost all the material was supported either with visual prompts, drawings, photos, symbols, objects, and story boards, and various combinations of these to help make concepts more concrete, and to help structure his thinking. To increase accessibility to the programme and to promote and maintain his interest, various kinaesthetic methods were employed, such as play doh, panic buttons, coloured sand, building blocks, movement and arts and crafts. Where information was presented using text he was given additional processing time and his understanding checked by asking him to repeat back in his own words the information presented. To facilitate his engagement by maintaining his interest the sessions were active, employing mixed methods of delivery and divided down into four or five segments. For example, after engaging in a rhythmic exercise to help him self-regulate (5 mins), the first section might focus on helping him to describe, and measure his current feelings (15 mins), and then to

draw these on a body map, describing how they were localised in his body (15 mins). The next section would be spent in an interactive activity to help consolidate the learning (15 mins). Then the final 10 minutes was spent on a mindfulness or relaxation exercise.

The evidence-based literature suggests that employing multi-modal methods to deliver the same learning point, helps young people with limited cognitive abilities to integrate information and to generalise concepts, while also reinforcing the learning, improving its chances of being stored into long-term memory (Jensen, 2000, 2005; Mayer, 2001, Mayer & Moreno, 2003).

Results

Treatment Outcomes

Client D's progress against his identified treatment needs and the learning objectives of the intervention were monitored throughout the intervention. Change was measured by observations during sessions, individual therapy notes, a comparison between his pre and post-intervention psychometric assessments, where treatment effectiveness was measured by a reported reduction or elimination of his presenting problems post intervention. Also included were staff observations of his behaviour at home and in school, as well as his own self-report at the post-intervention stage.

As the intervention was not directly targeting his harmful sexual behaviour and his reporting on the Trauma scale was well within the normal range; it was considered not appropriate to re-administer the measures for sexual knowledge, attitudes and beliefs related to his harmful sexual behaviour, and Trauma. Therefore, at the post intervention stage Client D completed the three psychosocial measures, the PRI, IRI and CABS, and two mental health measures, the Resiliency Scales and the ASEBA. The results of these are presented below. An overview of Client D's pre-and post-psychometric scores are provided in Appendix 11.

Client D's score on the Personal Reactivity Inventory Social Desirability measure (Greenwald & Satow, 1970) fell within the 'questionable range' both pre-and post-intervention, suggesting he continued to present himself in a socially desirable light.

Client D's Scores on the *Perspective Taking* and *Empathic Concern* subscales of the Interpersonal Reactivity Index (IRI) (Davis, 1980) demonstrated he had made a positive shift post-intervention. He was observed to have increased his ability to see things from others perspective, and to feel and express empathy for others. His scores on the Personal Distress subscale continued to fall within the average range.

Client D's overall score on the Children's Assertiveness Scale – CABS (Michelson & Wood, 1982) post-intervention reduced from 'High' to 'Above Average', mainly due to his reduced reporting on the *Over*

Assertive subscale, which dropped from Above Average to Low Average. This suggested that although he continued to have a propensity to be over assertive in his responding, his tendency to be aggressive was significantly reduced. Staff observations at home and school supported this view.

Post-intervention Client D's scores on the Resiliency Scales for Children and Adolescents (Prince-Embury, 2005) indicated improvements on both the *Resource Index* (from Low to Average) and *Vulnerability Index* (from Above Average to Average). This suggested Client D perceived himself as having more resources to manage his life circumstances and experiencing fewer difficulties with emotional regulation.

Client D's responding on the *Sense of Mastery* scale had improved from the pre-intervention stage but continued to be lower than that of his peers. This positive shift suggests that although he is finding it easier to interact with and enjoy cause and effect relationships within the environment, there is still room for improvement. Positively his scores on the *Optimism* subscale were also observed to have improved at the post-intervention stage suggesting he was more optimistic about his life. Although still lower compared to his peers, Client D's score on the *Self-Efficacy* subscale had demonstrated a positive shift. This suggests he found it easier to believe in his abilities to solve problems and master his environment at the post-intervention stage. His scores on the *Adaptability* subscale were also

improved, suggesting he was now as able as his peers to receive criticism and learn from his mistakes.

Client D's scores on the Sense of Relatedness scale and Support, Comfort, and Tolerance subscales all demonstrated positive shifts post-intervention. These changes suggested he experienced feeling more connected to individuals in a social context and found it less difficult to develop his relationships with others. His scores on the three subscales suggested he felt he could be himself around others; that he felt he could express his thoughts safely, even at those time when they might differ from those of others. They also suggested that he was now as able as his peers to be in the presence of others without experiencing discomfort or anxiety. His score on the Trust subscale remained in the 'Below Average,' range post-intervention, which suggested that when experiencing adversity, he believed there was no one he could turn to.

His scores on the *Emotional Reactivity Scale*, *Sensitivity* and *Recovery* subscales continued to fall in the average range post-intervention. However, his scores on the *Impairment* subscale increased from 'Average' to 'High', suggesting he found it significantly harder to maintain his emotional equilibrium when upset compared to his peers.

Post-intervention Client D continued to report having none of the problems measured by the Achenbach System of Empirically Based

Assessment -ASEBA scales (Achenbach, 2002). His cross-informant (Teachers ratings, Keyworkers ratings and his own self report, were compared and similarities and differences in perspective noted) scores on the *Attention* subscale remained unchanged; the same was not observed for his teachers scores on the *Attention Deficit/Hyperactivity Problems* subscale, which had made a positive shift from the clinically significant to the borderline clinical range. His cross-informant scores on the *Externalising* subscale of the ASEBA suggested this continued to be a clinically significant area of difficulty for him post-intervention. His key-worker scores on the *Rule-Breaking Behaviour* subscale reached the clinically significant level, demonstrating significant elevations in lying or cheating and thinking about sex.

More positively, scores from his teacher on the *Oppositional Defiant* and *Conduct Problems* subscales reduced from the clinically significant to the borderline clinical range. Observations made by staff at school suggested Client D's propensity to argue and to be disobedient had reduced. His propensity to destroy things belonging to others, to get into fights and threaten others, to be cruel, bullying or mean to others was also observed to be somewhat reduced. However, his cross-informant scores on the *Aggressive Behaviour* Subscale remained unchanged post-intervention.

Client D's cross-informant scores on the *Internalising* subscale suggested he continued to internalise responses to situations at a

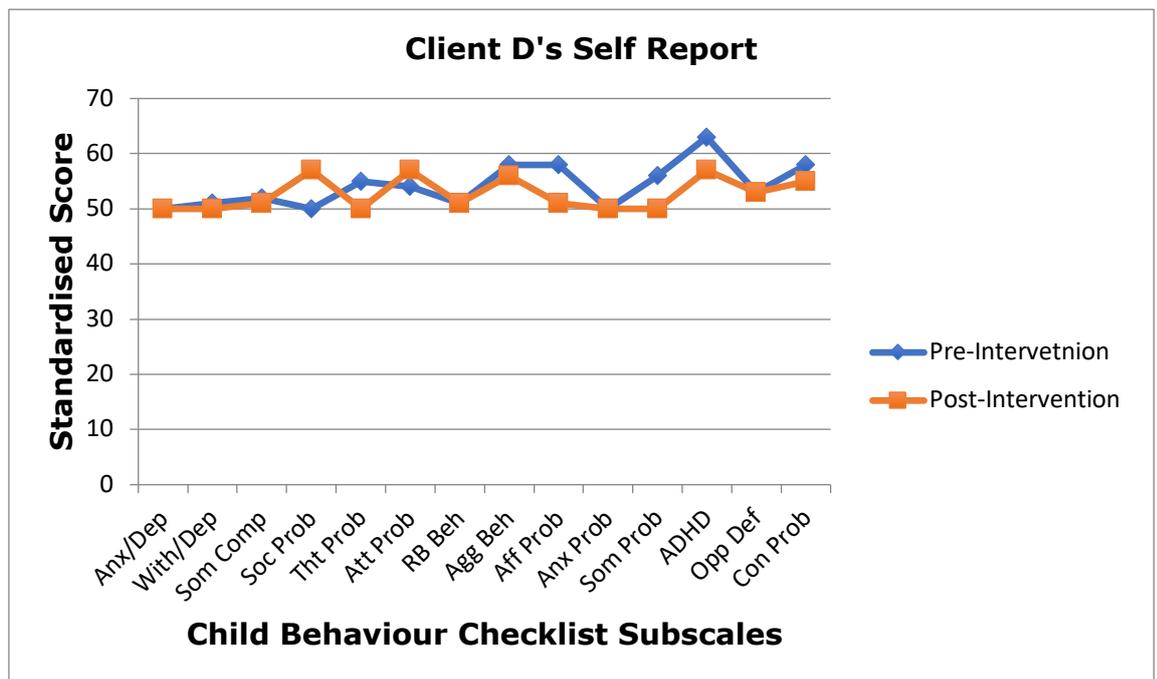
clinically significant level post-intervention. His cross-informant post-intervention outcomes on the *Thought Problems*, *Anxiety as a result of being Depressed*, *Somatic Problems*, *Anxiety Problems* and *Affective Problems* subscales remained unchanged. Although he was observed to be less fearful of thinking or doing something bad, and talked less about killing himself, he was also observed to be more willing to show his more vulnerable side at home, and to complain more of feeling worthless, inferior and unloved when at school. More positively when in his home setting his *Withdrawn behaviour* was observed to have greatly reduced (a shift from the clinically significant, to the normal range) at the post-intervention stage.

In the school setting his scores on the *Social Problems* subscale increased from the borderline clinical to the clinically significant level post-intervention. Observations suggested he was now easily jealous of peers, felt others were out to get him and he accidentally got hurt and was teased a lot. Both his cross-informant scores on the *Somatic Complaints* subscale had changed post-intervention. In the school setting his somatic complaints were observed to have increased from normal to the borderline clinical range. Items endorsed included that he was often tired for no reason, and often reported rashes/other skin problems. This negative shift may reflect the increased cognitive demand and emotional load Client D experienced when in school, which coupled with his interpersonal difficulties and difficult peer relationships resulted in increased negative affect states. In contrast, his key-worker scores indicated a

significant reduction in somatic complaints (from the clinically significant to average range) post-intervention. Which might suggest he experienced a greater sense of well-being when at home.

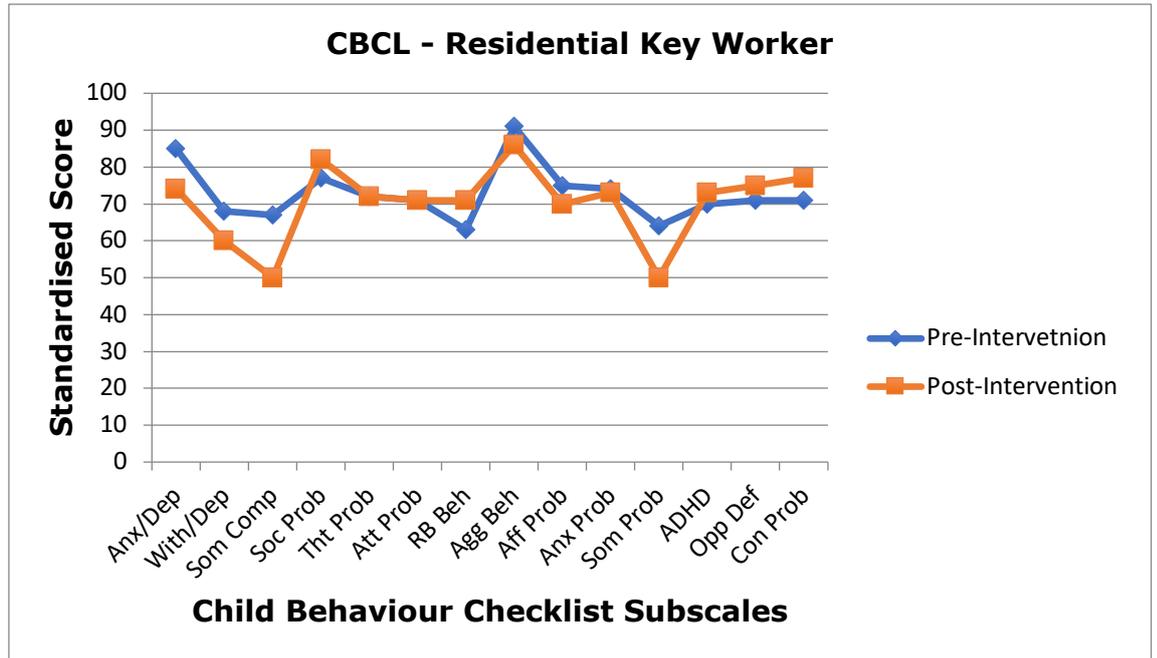
When the three ASEBA forms were compared post-intervention, they demonstrated an average level of agreement between the three respondents. Line graphs detailing pre-and post-intervention scores for each respondent for all the ASEBA scales are presented in Figures 3.1, 3.2 and 3.3.

Figure 3.1. Client D's Standardised Pre-and Post-Intervention Scores for each of the ASEBA Scales.



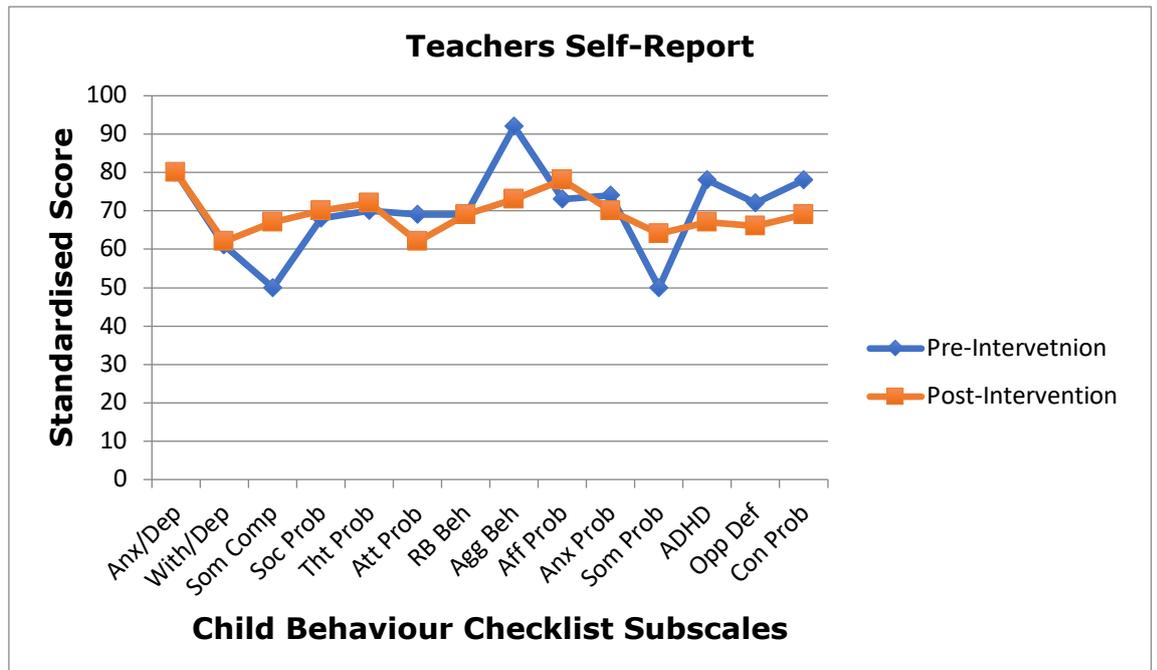
Subscale scores 65-69 = Borderline Clinical Range, 70+ = Clinical Range

Figure 3.2. Residential Key Worker's Standardised Pre-and Post-Intervention Scores for each of the ASEBA Scales.



Subscale scores 65-69 = Borderline Clinical Range, 70+ = Clinical Range

Figure 3.3. Teacher's Standardised Pre-and Post-Intervention Scores for each of the ASEBA Scales.



Subscale scores 65-69 = Borderline Clinical Range, 70+ = Clinical Range

Over the duration of the programme I observed a reduction in Client symptoms of stress, anxiety, and depression, as well as an increase in his adaptive and social skills. He increased the time he could remain in session, and by the mid waypoint was remaining in the session for the full hour. He gradually began to exhibit less distress and his disruptive and dysfunctional behaviours appeared somewhat reduced. Staff observations suggested his emotional vocabulary had expanded, and that he had improved his ability to recognise emotions in himself and others, and to be able to rate the intensity of his emotions more accurately. He was also observed to be engaging with his peers more and was starting to attempt to form some initial, tentative friendships.

Follow up

After the group was completed a follow up session was arranged to feedback his end of intervention report, and to review his mood, and interpersonal functioning, and to monitor/promote his continued use of his emotional regulation skills. In this meeting Client D reported the he wanted to start the Social Competency group work programme as he felt more motivated to engage in therapies and thought he would be better able to self-regulate, so not to be disruptive to the group process. This was a positive move as he had previously refused to attend this modality of therapy in the past. It was also represented a positive sign that he was now motivated to engage in his identified treatment needs and therapeutic treatment programme. Discussions were held with Client D's multidisciplinary

team to facilitate the gains he had made in this, his first completed intervention. The resulted in a referral being made for Client D to join the Social Competency group.

Discussion

The integrated theories of sexual offending (Marshall & Barbaree, 1990; Ward & Beech, 2006) discussed in the introduction have provided an explanation as to how Client D's harmful sexual behaviours may have developed and their purpose. His presenting problems and assessment appear to provide some support to these theories, in particular how his adverse early life experiences and developmental trauma disorder have negatively impacted on his attachments, his social and self-regulation skills, problem-solving deficits and low self-esteem. Observations of Client D suggested that increased arousal; negative affect, emotional dysregulation and low mood were contributory factors in his harmful sexual behaviour. His history and the outcome of his pre-intervention assessment would seem to suggest his difficulties have been exacerbated by biological factors such as his ADHD type symptoms, and the onset of puberty which may have served to increase his preoccupation with sexual thoughts and fuelled his levels of arousal (Marshall & Barbaree, 1990).

Client D's history, learning difficulties and pre-treatment assessment also provide some support towards the counterfeit deviance

hypothesis presented by Hingsburger, Griffiths and Quinsey (1991). Client D's assessment suggested he lacked appropriate and comprehensive sexual knowledge and had an impaired understanding of socio-sexual boundaries and the rules and social norms of society.

His restrictive living environment since age 13 and lack of appropriate education may have resulted in poor courtship skills resulting in overt and often aggressive sexualised behaviours when attempting to court others. His difficulties understanding, trusting, relating and feeling connected to others in social situations have further limited his ability to establish appropriate relationships with others.

A limitation of the current study was that although positive change was seen across several his treatment targets, it was not possible to know if the individual intervention presented here was solely responsible for this change. At the time of treatment, Client D was also having one to one speech-language therapy and was a member of the communications skills group which aimed to promote the internalising of social rules and improving his emotional vocabulary (e.g. his emotional expression and identification skills) and linking his feelings to everyday situations. A further limitation was the relatively short time between his baseline assessment and post-treatment follow up (3 months). Further reviews at the 6 and 12-month stages would ascertain longer effects of treatment and if an observed change was sustained.

Many of the standardised assessment measures used in this case were based on self-report. Although these have been criticised as being highly susceptible to impression management (van de Mortel, 2008) and demand characteristics (Nichols & Maner, 2008) they were considered useful as they took relatively little time to complete (accounting for the influence of Client D's limited ability to attend and concentrate), they were cost effective as they required little training in their use and were easily scored and interpreted. Using self-report allowed for Client D's perception of his problems and associated beliefs to be taken into account, where these differed from clinician-rated assessments was also considered to be of value.

However, it was noted that some of the outcomes appeared to conflict with what was known of Client D and his history and from what staff had observed. His responding on the social desirability sub-scale of the PRI fell within the questionable range, which suggested he may not have been fully open and honest in his responding which means some degree of caution should be taken when interpreting the results of the psychosocial measures.

When attempting to identify a comprehensive sexual knowledge measure containing items more relevant to risk of harmful sexual behaviour for adolescents with limited cognitive ability, it was noted that there was a significant lack of tools available. Particularly with regard to the breadth and depth of items available and constructed using language and concepts aimed at facilitating understanding for

adolescents with limited cognitive abilities. There also appears to be a lack of tools including items on technology-assisted harmful sexual behaviour, which is becoming increasingly relevant in research aimed at understanding these types of offences in adolescents.

On my review of existing sexual knowledge tools, the Knowledge Test component of the Assessment of Sexual Knowledge – ASK (Butler, Leighton & Galea, 2003) was selected. This was primarily because the tool was aimed at people aged 16 years plus who had limited cognitive abilities. The tool also has a supportive picture book (to provide context to questions and facilitate understanding). Another possible limitation of Client D's assessment was his reaction to the Sexual Knowledge measure. It was quite lengthy, and Client D had difficulty attending to the questions for more than 7-8 minutes at time. Throughout its administration, Client D expressed his feelings of discomfort, disgust and embarrassment. At times was observed to be having difficulty containing his arousal (finding the images too sexually explicit), and on completion of the questionnaire he reported that in a desire to complete the measure quickly he had guessed ('I just put anything down') for the answers he was unsure about, which had the knock-on effect of blurring the accuracy of his responding. Therefore, his scores on this measure may not be a true reflection of his current level of sexual knowledge. These events highlighted the need for appropriate and comprehensive sexual knowledge measures aimed at young people with IDD who engage in harmful sexual

behaviours. Measures that are supported with images designed with children and adolescents in mind.

To build on the skills developed in his Emotional Awareness Intervention and from the Communication Skills group, Client D was referred to the Social Competency Groupwork programme. Which will further improve his social and emotional competency skills. The group will also help Client D to further develop and internalise appropriate pro-social attitudes and beliefs and develop his capacity for taking responsibility and making changes. Should further consolidation of these skills be required, he may complete up to 3 differentiated versions of the program.

Should Client D continue to improve in his affect regulation and coping, it is also recommended that he engage in Trauma Life Narrative work on a one to one basis, to help him structure his memories visually and to build a coherent life narrative that will allow him to start to process the associated thoughts and feelings. The work will also help him to share some of his more difficult feelings such as his fear of rejection, hopelessness, feelings of inferiority and worthlessness. The work should be tailored in a way that he can access so it will provide him with a framework of understanding concerning the likely aetiology of his harmful sexual behaviour. This could run alongside his attendance of the Social Competency group.

Once Client D has completed the Social Competency group a referral to the offence specific adapted group work programme is recommended. Employing a Rational and Emotive Behavioural Therapy – REBT (Ellis & Bernard, 2006) framework, the aim of the adapted offence focused group is to increase Client D’s insight into those risk factors related to his harmful sexual behaviour, and to develop skills to enhance resilience factors. The adapted programme is designed for those young people whose cognitive or behavioural difficulties would preclude them from the mainstream offence focused group work Programme. The same modules are offered but have been differentiated to suit young people with IDD. These recommendations along with living in a highly structured, consistent and caring environment will provide Client D with the opportunity of a safe future.

Chapter 4.
**Critique of The Sexual Knowledge Test and Quiz Components
of The Assessment of Sexual Knowledge (ASK) Psychometric
Measure.**

Abstract

The Sexual Knowledge Test and Quick Knowledge Quiz sections of the 'Assessment of Sexual Knowledge' (ASK) psychometric measure is reviewed and evaluated in relation to other assessments on this topic.

The four sections of the ASK were developed to be used either together or as separate stand-alone assessments. The four sections of the ASK test book are: (A) The Sexual Knowledge Test, which contains 124 items supported by a numbered picture book. (B) A Quick Sexual Knowledge Quiz which comprises of 25 items for screening and pre/post testing. (C) A 40 item Assessment of Sexual Attitudes and Beliefs and (D) A 20 item Problematic Socio-Sexual Behaviours Checklist.

Results indicate that the Sexual Knowledge Test can provide valid and reliable information on the sexual knowledge of adults with an IQ of 40 or over. The test-re-test agreement on the sexual knowledge test questionnaire ranged from 60% to 100%, with a mean of 83% across the 124 items, whereas the 'quick' 15-minute Sexual

Knowledge Quiz demonstrated only test-retest reliability of 27%. This indicates that the Knowledge Test component should be re-administered pre-and post-intervention to assess treatment change rather than the Quiz.

The Knowledge Test component of the ASK is considered to be a useful well-designed tool for people with Intellectual Developmental Disorders (IDD), with some good psychometric principles. However, it would appear there is still some scope for improvement of the Quick Quiz component. In practice, the Knowledge Test is a good clinical tool which can be used with adults, older teenagers (16+ years), and adults with IDD to reliably establish their sexual knowledge.

Introduction

The Assessment of Sexual Knowledge (ASK) was initially developed by Butler, Leighton and Galea (2003) in response to research suggesting individuals with IDD had “limited sexual knowledge and unsafe sexual practices” (Galea, Butler, Iacono & Leighton, 2004). Its development was also in response to the relative paucity and limitations of existing tools aimed at measuring sexual knowledge in individuals with IDD, who had reached the age of sexual consent (16+ years).

An administration manual was published by Butler, Leighton and Galea (2003) via the Department of Health & Human Services in Melbourne, State of Victoria, Australia. The tool has been used successfully to measure sexual knowledge in adult (18+ years) sex offenders with IDD (Burrett, 2010), adults (18 to 52 Years) with IDD placed in specialist community residential services, and adults (18 to 57 Years) with IDD residing independently in the community (Butler, Leighton & Galea, 2003).

The ASK test book comprises of four separate components:

(A) The Sexual Knowledge Test containing 124 items, divided into 15 sections, each measuring a specific aspect of sexual knowledge. (B) A Quick Sexual Knowledge Quiz which has 22 (yes/no) items and three short answer items designed to provide a general overview of the individual’s sexual knowledge for pre-and post-testing/screening.

(C) A 40 item Sexual Attitudes and Beliefs Test across 6 topic areas which seeks to establish the individual's attitudes towards sexual matters and to identify any significant or concerning cultural or environmental factors. These are used to contextualise the individual's level of sexual knowledge. (D) A 20 item Problematic Socio-Sexual Behaviours Checklist to examine the individual's difficulties in this area. This is completed by a professional worker and can be used as a tool to refer the individual to specialist services (Galea, Butler, Icono & Leighton, 2004).

The ASK assessment tool also comes with a numbered picture book containing black and white line drawings for use with items in the (A) sexual knowledge test and the sexual attitudes and beliefs assessment. Some of these images are sexually explicit and the authors warn they should be used with discretion. Each of the four components can be used in isolation or together if a more comprehensive assessment of sexual knowledge is required (Galea, Butler, Icono & Leighton, 2004).

The items contained within each of the ASK's components were selected by the developers of the ASK based on their review of existing sexual knowledge tools, the literature, and by consulting a panel of experts in sex and relationships and IDD (e.g. psychologists and case managers). The authors state the intended purpose of the ASK was to:

- Identify the human relations and sex education needs of people with intellectual developmental disorders (Sections A & B).
- Assist professionals to discriminate between behaviours arising from deficits in sexual knowledge and those arising from sexual deviancy in individuals with intellectual developmental disorders (Sections A & D).
- Identify beliefs and attitudes that may cause individuals with intellectual developmental disorders to be at risk of sexual victimisation, sexual deviancy or of sexual harmful behaviour (Section C).
- To assist the research in sex and relationships (Sections A, B, C & D).

This critique will focus on the development of the psychometric properties of The Knowledge Test and Quick Quiz Sections A & B of the ASK only and the reliability and validity of these components in measuring sexual knowledge in individuals with IDD and harmful sexual behaviour. A critique of these components was considered important in the development of a sexual knowledge test for young people (aged 12 to 17 years) with Intellectual Developmental Disorder (IDD) and harmful sexual behaviours and for young people without one or both these problems (see Chapter 5).

Furthermore, only the Sexual Knowledge Test (A) of the ASK has been applied to adults with IDD and harmful sexual behaviours

(Burrett, 2010). Therefore, Sections (C) and (D) on attitudes and problematic behaviours were not included in the critique.

Background to the Development of the ASK

The literature consistently demonstrates that individuals with IDD have limited sexual knowledge (Galea, Butler, Iacono & Leighton, 2004; Isler, Tas, Beytut & Conk, 2009; Siebelink, de Jong, Taal & Roelvink, 2006), and at a lower level than their typically functioning peers (Jahoda & Pownall, 2014; McCabe, 1999). Studies examining sexual knowledge in individuals with IDD also suggest that these individuals are afforded less opportunity to learn about sexuality (Cheng & Udry, 2002; Murphy & O'Callaghan, 2004). Some authors have suggested that restrictive living environments, lack of sexual knowledge, poor social and heterosexual skills, a poor understanding of the laws of society and social norms, harmful sexual experiences and limited opportunities for appropriate sexual expression and to establish sexual relationships might be why some individuals with IDD go onto sexually offend (Craig, Stringer & Moss, 2006; Griffiths, Hingsburger, Hoath & Ioannou, 2013; Hingsburger, Griffiths & Quinsey, 1991).

It has been proposed that individuals with IDD perpetrating more 'nuisance' type offences such as indecent exposure may do so as an inappropriate expression of their sexual feelings rather than because of sexually deviant tendencies (Day, 1994). There is a general

consensus that individuals with IDD engaging in sexually inappropriate behaviours need to have a comprehensive needs assessment (that addresses both static and dynamic factors) so that individualised treatment programs can be provided, in which socio-sexual issues form an integral part (Griffiths, Hingsburger, Hoath & Ioannou, 2013). Having adequate and appropriate sexual knowledge is also an important factor when protecting against sexual vulnerability and victimisation, the literature has constantly demonstrated that individuals with IDD are more likely to be a victim of sexual abuse than their non-disabled peers (Browne & McManus, 2010; Byrne, 2017; Jones, Bellis, Wood, Hughes, McCoy, Eckley & Officer, 2012; Spencer, Devereux, Wallace, Sundrum, Shenov, Bacchus & Logan, 2005; Sullivan & Knutson, 2000).

Sexual knowledge, sexual attitudes and sex education have been the focus of several studies and assessments over the last 30 years. However, much of the tools designed to assess sexual knowledge have been developed and standardised on individuals without IDD (e.g. the Multiphasic Sex Inventory – MSI, Nichols & Molinder, 1984) and therefore it is not clear the extent to which these tools can be used effectively with individuals with IDD (Craig, Stringer & Moss, 2006). Sexual knowledge assessment tools designed specifically for use with individuals with IDD are few and have often not been developed using sex offenders with IDD.

McCabe, Cummins and Deeks (1999), developed psychometric scales of sexuality. During their research, they found that individuals with mild IDD (50 – 69 IQ) tended to give brief responses to the questions posed. This led them to design an interview schedule (with some supporting pictures), which allowed some overlap and provided an easy to difficult graduation. In a bid to minimise acquiescence they kept items simple and allowed for a variety of acceptable responses of different lengths. Their research led them to develop the Sex Ken-ID, a 248-item instrument spread across 12 subscales (See Appendix 13 for sub-scale details). The tool was developed to be broad enough to inform and construct appropriate sex education programs, and to be used as a pre-and post-measure to help evaluate the effectiveness of sex education programmes with individuals 15 years plus, who have IDD. The SexKen-ID proved to have good psychometric properties and good internal consistency, which was stable over time with offending and non-offending populations, with IDD (McCabe Cummins & Deeks, 1999, Szollos & McCabe, 1995). While the SexKen-ID is a fully comprehensive test of sexuality, some of the limitations of the instrument are the time it takes to administer (approximately 1 hour) and that it does not contain items relevant to sexually abusive behaviours (Edwards, 2000).

More recent tools include the Social Sexual Knowledge and Attitudes Assessment Tool – SSKAT, which was originally developed by Wish, McCombs and Edmonson, (1980) but later revised by Griffiths and Lunsky (2003) to the SSKAAT-R. In their revision, the authors asked

40 professionals using the original SSKAT for their feedback regarding the strengths and weaknesses of measure and what they would like to see change. The authors incorporated most of the topics covered by the original SSKAT in their revision but from the feedback provided excluded several items on alcohol and drug use and risks and hazards in the community. Additional items were added regarding HIV/AIDS, sexual health, appropriate and inappropriate touch, age discrimination, menopause and additional sexual activities. In addition, changes were made to the language and content to reflect current terminology and current sexual concerns. More open-ended questions were added to reduce acquiescence to yes/no responses and to reduce guessing.

Supporting pictures were also placed into an easel file and separate cards produced that could be sorted and pointed to (Watson, 2002). Griffiths and Lunsky (2003) developed the SSKAAT-R to be used specifically with individuals with developmental delay and those with limited language capabilities. The purpose of the tool is to determine the socio-sexual knowledge and attitudes of people aged 15 years and up with developmental disabilities. The authors also designed the tool to provide a comprehensive socio-sexual assessment as part of an overall assessment for individuals who may have difficulties with their behaviour in this domain. They proposed the measure could also provide a pre-educational baseline and to inform content when developing person-centred socio-sexual programs, and as a

post-intervention measure to evaluate program effectiveness and positive change.

The SSKAAT-R measure comprises of 189 knowledge items and 22 attitude items spread across seven subscales (see Appendix 13 for sub-scale details). The measure has demonstrated good internal consistency (Cronbach's alpha, .81 to .92), high test-retest reliability (.78 to .96) and high inter-rater reliability (.89 to .96). The tool has been used successfully as a measure of sexual knowledge with both offending and non-offending IDD populations (Lockhart, Guerin, Shanhan, & Coyle, 2010; Michie, Lindsay, Martin & Grieve, 2006). Criticisms of the measure have been the difference in the number of questions dependent on whether the respondent is male or female (Watson, 2002). Females can potentially achieve higher scores making the comparisons between the two sexes problematic. Scoring the measure can be quite difficult (Watson, 2002) and can be lengthy (approximately 1 hour to score).

With such criticisms in mind Butler, Leighton and Galea (2003) developed the Assessment of Sexual Knowledge (ASK). The authors evaluated their initial list of agreed topic areas for the ASK against the SSKAT (Wish, McCombs & Edmonson, 1980), the Human Relations and Sexuality Knowledge and Awareness Assessment (Family Planning Victoria, 1997), Not a Child Anymore (Fraser 1987) and the SexKen-ID (McCabe & Cummins, 1994) to determine the scope and limitations of these tools. In a pilot study, the authors also

approached 20 professionals working with people with IDD and asked them to review the ASK for face validity, wording and general appropriateness for the communication needs of adults with IDD. Sixteen responses resulted in several suggested changes in language and sentence structure, which were incorporated into the measure. It was then tested on a sample of 96 adults (54 males and 42 females), in which 75% were reported to have mild/borderline IDD and 21.9% moderate IDD. The ASK aimed to provide reliable information on the sexual knowledge of people with an IQ ranging between 35-75.

Other than psychometric properties, the authors found that participants had limited knowledge in the areas of safe sex practices, STI's, contraception, and sexual health screening. The authors concluded that their findings suggest that either participants were not provided with appropriate sex education programs, that these subjects were not being taught, or the information participants had been presented with on sex and relationships had not been understood or retained.

Reliability and Validity of the Sexual Knowledge Test and Quiz

Content Validity

As a first step in their item analysis Butler, Leighton and Galea (2003) conducted a pilot study of the draft Knowledge Test (consisting of 121 items under 15 sections) with 10 individuals with

IDD selected randomly from the clinical caseload of the project consultant. Participant age ranged from 17 to 47 years (M= 28 years). A review following administration of the draft Knowledge Test suggested some items were difficult to comprehend or failed to access the full range of the participant's knowledge. The authors amended the measure to include a prompt, "Anything else?" so administrators could encourage respondents to provide more than one response. As a result of the pilot study 20 of the 121 items were removed and modifications made to approximately a quarter of the remaining items.

The 15-minute Quick Knowledge Quiz was also administered to all participants of the pilot study. As a result, two minor amendments were made to two items, and the number of questions reduced to ensure the test could be completed within 15 minutes.

Face Validity

To assess face validity the authors compiled a questionnaire addressing the Knowledge Test and Quiz content, format, and usability. The questionnaire was provided to twenty professionals with experience in the areas of sex and relationships. Using a 5-point Likert scale (1 = poor to 5 = Excellent) respondents were asked to rate each section for its quality of items, breadth of the questions, level of difficulty administering the assessment, appropriateness of the vocabulary, suitability for persons with IDD, and the accuracy of answers provided to items.

Sixteen questionnaires were returned. The ratings provided for the Knowledge Test component are given in Appendix 14. The overall rating for quality was above 4 (very good). The highest scores were achieved on Parts of the Body (4.63) and Masturbation (4.69) sections. For breadth, the body parts (4.75) and sexual health (4.60) sections achieved the highest ratings and the public and private (3.94), menopause (3.75) and safe sex (3.81) sections achieved the lowest ratings. For ease of administration, the overall rating was very good to excellent; the lowest score achieved was on the menopause items (4.13). With regards to vocabulary, the highest rating was achieved for the masturbation section (4.69), and the lowest for the safe sex (3.69) sections. For accuracy of responses, body parts obtained the highest overall rating (4.63), and the safe sex section (3.69) achieved the lowest rating. Overall the highest ratings on the Knowledge Test component were given for the body parts and masturbation sections, while the lowest rated sections were menopause and safe sex.

As a result of the face validity evaluation two further items were deleted, five items inserted, and eight items modified. The authors do not provide details of which items were omitted, modified or added but state the modifications involved rewording (e.g. appropriateness of wording, syntax and content for individuals with intellectual developmental disorders), substituting the question or suggested answer, the inclusion or removal of colloquial terms and providing additional items giving a correct response.

The overall face validity ratings for the Quick Knowledge Quiz were, for quality and breadth of questions (4.44 and 4.5 respectively), ease of administration (4.5), appropriate language (4.38) and accuracy of answers (4.31).

Scoring

Responses for the Knowledge Test component are scored 0 for incorrect, 1 for partially correct (where applicable) and 2 for correct. Some of the items in the measure require more than one response to receive as a score of 2. These items are followed by a specific prompt e.g. "anything else?" to stimulate additional responses. If the respondent provides a partial response to such items, then they are scored 1 (Galea, Butler, Iacono & Leighton, 2004). At the end of the assessment responses are compared to those detailed in the test book, and a total section score is noted in the scoring box at the end of each section, except for section 15 (see Appendix 13 for details of the 15 sections). Section 15 measures two aspects of legal issues (Rights and Illegal Behaviours). Six items in the section are added together to obtain a score for the legal rights section and another six items are added to provide a score for the illegal behaviours section. Once all the sections have been totalled these are then transferred to the knowledge profile sheet, which provides an overview of the respondent's sexual knowledge. The maximum score for the Knowledge Test measure is 248.

Interpretation of Results

The Knowledge Test is a structured clinical assessment requiring clinical interpretation. It does not have a normative sample for comparing scores for diagnostic purposes. The assessor is reminded when interpreting the measure, they should consider how gender, social economic status and cultural influences might have influenced the individuals responding. This is particularly important when considering educative programmes or management strategies, as these will need to accommodate such influences.

Time to Administer

The Knowledge Test is lengthy and takes between 45 minutes and 1 hour (approximately) to administer, depending on the administrator's knowledge of the tool and the characteristics of the respondent. The developers recommend this be done in one sitting, but to allow for breaks where required. Hence, a 'quick' 15-minute Quiz was developed.

Test-retest Reliability

To assess inter-rater reliability the authors recruited 96 adults (54 male and 42 female) with IDD ranging from 18 to 57 years of age (M=31.5 years).

Of the sample 75% were reported to have mild/borderline IDD and 21.9% moderate IDD.

Participants either lived in the family home (47.4%), in a staff community residential unit (38.3%), independently with a partner (7.4%). The remaining 7.4% resided in other types of accommodation (e.g. care, hostel or a secure setting). The study employed six examiners, all with experience of working with individuals with IDD. All were trained in the administration procedure of the Knowledge I component.

All participants completed the Knowledge Test and Quick Knowledge Quiz on two separate occasions. The interval between administrations ranged between one and two weeks. The same examiner completed both administrations. Test re-test reliability was established by comparing the results at time 1 with the results at time 2. Percentage agreement was determined by dividing the number of times the score obtained on an item in the first assessment matched that obtained from the second assessment. This number was then divided by the total number of participants who answered that item on both occasions multiplied by 100. The Knowledge Test re-test agreement ranged from 60%-100% (M= 83%) across all 124 items. These values are presented in Appendix 15.

The results of the test-retest suggested that participant's responses remained stable over time for the Sexual Knowledge Test, but for the Quick Knowledge Quiz, test-retest was only 27%. On the Knowledge Test the poorest level of agreement was observed in the public and

private parts and places (69%) with the other knowledge test sections achieving between 78%-91%. The authors suggest the lower level of agreement on this section may have been due to the greater degree of variability as a result of prompts being used to elicit additional information from participants. They add that while the use of prompts is likely to increase variability in response between assessments they are an important addition to tools aimed at assessing individuals with IDD who often have memory difficulties.

The Quick Knowledge Quiz's overall poor test-retest reliability (27%) suggests that this component of the ASK requires further development.

Inter-Rater Reliability

Inter-rater reliability is a measure of consistency. In the case of the Knowledge Test it was applied to evaluate the consistency of scores applied by two examiners across individual items of the measure. For approximately a third of participants ($n=33$) a second examiner was present during testing. The first examiner would be responsible for the administration of the knowledge test and recorded participant's responses in the usual way. The second examiner remained silent but independently scored the participant's responses in a separate answer book.

Inter-rater agreement was determined by the degree of agreement between the two raters for each item. The authors divided the total

number of agreements and disagreements and then multiplied these by 100 to obtain the percentage agreement between the two raters. Percentage agreement ranged from 67% to 100% across items at time 1, and from 82% to 100% at time 2. The inter-rater reliability mean score at time 1 (92%) and at time 2 (95%) demonstrated a high level of consistency between raters (see Appendix 16). The Inter-rater reliability of the Quick Knowledge Quiz was established in the same way as above and was found to be 73%.

Relationship between the Knowledge Test and Quiz

Components

The 15-minute Quick Knowledge Quiz demonstrated good agreement with the 45-minute Knowledge test. Fourteen of the 16 section totals of the Knowledge Test were significantly and positively correlated with the Quick Knowledge Quiz (Person correlations ranged from .34 to .63). Non-significant correlations were obtained on the Quick Knowledge Quiz and the Menstruation and Menopause sections of the Knowledge Test. This indicated little overlap in the constructs tested by these sections and the Quick Knowledge Quiz.

Limitations of the Knowledge Test and Quiz Components

The main limitation is that the 'normed data' is based on a bias sample of adults with borderline to mild IDD (57% and 75%) and other participants showing moderate IDD (43% and 25%). This limits the application of the Sexual Knowledge test to those individuals whose level of IDD falls within this range.

The Sexual Knowledge Test component of the ASK has demonstrated some good psychometric properties and has undergone extensive research and testing in its development. However, a literature search for studies using the Sexual Knowledge Test empirically as an assessment measure (apart from two articles by the ASK developers) returned just one result. In Burrett's study, the author successfully used the tool as a pre-and post-intervention measure in that it could detect treatment change in four adult male sex offenders (Burrett, 2010). Although the Galea et al. (2004) study incorporated some individuals with IDD who had taken part in offender treatment programs or had displayed inappropriate sexual behaviour, additional empirical research is needed to inform the tool's effectiveness across different populations of individuals with IDD. Additional studies could also be used to see if the results obtained by Galea et al. (2004) can be independently replicated to rule out any bias in their findings.

A weakness of both the Sexual Knowledge Test and Quick Knowledge Quiz is that they are psychometric measures that require clinical interpretation. There is currently no normative data provided by the developers on which practitioners can make comparisons. Having a normative dataset allows the practitioner to compare an individual's scores to those obtained by a much larger group of similar individuals. This comparison allows the practitioner to judge where the individual's level of knowledge is compared to his peers and therefore provide meaning to the scores. For example, being able to compare your test takers score with the overall mean score obtained

from a similar regional or national sample of test-takers will give the practitioner a way to judge the individual's relative strength in that knowledge area (Oppenheim, 2000). The practitioner can then assume, for example, with relative confidence that the test taker has lower sexual knowledge on the parts of the body subscale compared to his peers and therefore this may need to form part of an educative program to address this gap. It is not clear from the literature as to why the authors did not generate a normative data set or if one is under construction.

A problem acknowledged by the authors was the difficulties in testing the concurrent validity for the four ASK components. The reasons cited by the authors were that other sexual knowledge and attitude assessment tools, such as the SSKAT and the Sex Ken-ID, were out dated and had limited information on reliability and validity. However, since the inception of the ASK, the SSKAAT-R has been developed and has demonstrated good reliability and content validity (correlated with the SKAAT) and may provide the means by which concurrent validity of the ASK can now be tested.

More recently another criticism that has been directed at the ASK is the complexity of the language used in some of the items. In their study exploring clinician's use of sexual knowledge assessment tools with individuals with IDD, Thompson, Stancliffe, Broom and Wilson (2016) asked clinicians how useful they found the ASK. Responses included that the language used was far too complex for individuals

with IDD to understand, despite the fact that items had been adapted for use with such individuals (Thompson et al., 2016).

Clinicians also expressed concern that some questions within the assessment tool could be interpreted in different ways. The authors concluded that further refinements might need to be made to the tool regarding greater accessibility for individuals with more severe IDD (Thompson et al., 2016).

When the author of this thesis used the tool clinically, it was noted that some of the supporting pictures, although line drawings, were sexually explicit (e.g. those detailing, oral, anal and vaginal sexual intercourse). While it is recognised that for individuals with IDD ambiguity in pictorial depictions needs to be avoided at all costs, it was of concern that for some individuals such images might trigger a trauma response. As mentioned previously it is well documented that individuals with IDD are more likely to have been a victim of sexual abuse than their non-disabled peers (Jones et al., 2012; Spencer et al., 2005). Although the authors do provide a warning to this effect, it is imperative that a full review of the person's case history be conducted beforehand so that procedures can be put in place for the individual to access support should there be such an outcome.

Conclusion

Results indicate that the Sexual Knowledge Test component of ASK can provide valid and reliable information on the sexual knowledge of adults with an IQ of 40 or over. The test re-test agreement on the Sexual Knowledge Test ranged from 60% to 100%, with a mean of 83% across the 124 items. The results of the test-retest reliability indicated that participant responses remained stable over time, suggesting the Knowledge Test could be used to reliably establish an individual's current level of sexual knowledge. It could also help to inform interventions aimed at increasing sexual knowledge and allow practitioners to tailor programmes to individual needs. This was not observed for the Quick Knowledge Quiz which demonstrated low test-retest reliability (27%).

This indicates that the Knowledge Test component should be re-administered pre-and post-intervention to assess treatment change rather than the Quick Knowledge Quiz.

The Sexual Knowledge Test component of the ASK is considered to be a useful well-designed tool for people with IDD, with some good psychometric principles. However, it would appear there is still some scope for improvement of the Quick Knowledge Quiz component. In practice, the Knowledge Test is a good clinical tool which can be used with adults, with older teenagers (16+ years), and adults with IDD to reliably establish their sexual knowledge baseline. Item scores can

also help to inform the content of educative programs aimed at increasing sexual knowledge for individuals with IDD, and to then measure the effectiveness of these programs.

Chapter 5.

To Evaluate an Adapted Sexual Knowledge Measure for its Ability To Measure Sexual Knowledge Accurately Across IDD and Non-IDD Adolescent Populations.

Abstract

A questionnaire adapted from the Assessment of Sexual Knowledge – ASK (Butler, Leighton & Galea, 2003) was tested for its ability to accurately measure sexual knowledge in 153 adolescent males aged 12-17 with and without intellectual developmental disorders (IDD) and their counterparts who display harmful sexual behaviour (HSB) (see Chapter 6). As never before, the questionnaire was examined with regards to its content validity, internal consistency/split half reliability and stability over time. Statistical analysis revealed content validity for the individual items (I-CVI) was established for 74 out of 76 items (range .50 to .80), with most items receiving a rating of .80 or above. Content validity (S-CVI/Ave) was established for all sections on the measure (range .87 to 1.00) with most items receiving a rating of .90 or above. The internal consistency of the measure ranged from questionable (.60) to excellent (.94) and the split half reliability ranged from good (.70) to excellent (.94). Test re-test data suggested the measure demonstrated good (.87, $p=0.02$) to excellent (.99, $p=.000$) stability over time. The findings from this initial study suggest the psychometric properties of the adapted questionnaire are promising.

Introduction

The literature surrounding the assessment and treatment of sexual offenders has consistently demonstrated that objective measures such as psychometric tests and questionnaires can provide a more accurate and reliable assessment of these individuals than more subjective methods, such as clinical interviews (British Psychological Society, 2016). In addition, the use of psychometric tests may also provide 'normed' samples to offer a statistical comparison of individuals within a certain group and offer an important measure of change pre-and post-intervention (Craig & Lindsay, 2010). While there is no shortage of psychometric assessment tools available for offending populations without intellectual developmental disorders (IDD), in stark contrast there is a paucity of such measures available for offending populations with IDD. As noted by Lindsay (2002) this relative lack of empirically tested psychometric tools for individuals with IDD has impeded the accurate assessment and treatment provision aimed at positive change in this population (Craig & Lindsay, 2010).

When developing or adapting assessment tools aimed at individuals with IDD it is important to use simple language and concepts to facilitate the individuals understanding (Clare, 1993; Kolton, Boer & Boer, 2001; Lindsay, 2002; Lindsay & Taylor, 2009). Respondents with IDD are more likely to have executive function deficits, memory deficits, speech, language and communication deficits (Blasingame et

al., 2015) and difficulty comprehending more complex language. Therefore, psychometric measures or questionnaires adapted or developed for use with individuals with IDD need to be constructed using short sentences (Kolton, Boer & Boer, 2001), avoid using the passive voice and negatives (D'Eath et al., 2005), and should contain visual reinforcement using signs, symbols, drawings or images to facilitate communicate and convey meaning (Clare, 1993; O'Callaghan, 2004).

When assessing sexual knowledge in adolescents with IDD it is important to use age-appropriate language and to build in tactics to validate the assumptions you may have about what the person is communicating. Certain words may have several potential meanings, or the young person may not have a clear understanding of their meaning. Individuals with IDD tend to acquiesce (respond to much of questions in the affirmative), and not respond truthfully due to a desire to please the interviewer and provide what they think is the desired response (Cummins, 1997). Additional types of response bias often seen in individuals with IDD are the tendency to nay-say (respond mainly in the negative) or to select the last option stated (D'Eath, McCormack, Blitz, Fay & Kelly, 2005). Individuals with IDD have also demonstrated an increased vulnerability to a suggestible response to leading questions (Clare, 1993), and therefore, where possible open-ended questions should be used. With these factors in mind, Butler, Leighton and Galea (2003) developed the Assessment of Sexual Knowledge (ASK) in response to the research highlighting

the unsafe sexual behaviours and limited sexual knowledge among adults with IDD, and the limitations of existing tools (Galea, Butler, Iacono and Leighton, 2004). The authors along with a reference group consisting of 12 professionals working with individuals with IDD evaluated an initial list of agreed topic areas for the ASK against the SSKAT (Wish, McCombs & Edmonson, 1980), the Human Relations and Sexuality Knowledge and Awareness Assessment (Family Planning Victoria, 1997), Not a child anymore (Fraser 1987) and the SexKen-ID (McCabe & Cummins, 1999) to determine the scope and limitations of existing sexual knowledge assessment tools.

It was agreed that to cover all the listed topics that the ASK would be developed in a format that consisted of four components which could be used separately or in a variety of combinations, depending on the requirements of the user. The four components of the ASK were established as, a knowledge test; a quick knowledge quiz; an attitudinal assessment; a problematic socio-sexual behaviours checklist. The authors approached 20 professionals working with people with intellectual development disorders and asked them to review their draft measure for face validity, (e.g. to rate the quality, breadth and depth of questions, appropriateness of vocabulary and whether the language was suitable for individuals with IDD). This resulted in several items being added and deleted, and modifications being made to some items regarding language and sentence structure.

To determine the reliability of the knowledge test, attitudes and quick knowledge quiz components of the ASK it was tested on 96 adults with mild to moderate IDD, results indicated that the tool was able to provide reliable information about the sexual knowledge of people with IDD. The high test-retest reliabilities of the knowledge test and attitudes components of the tool indicated these could be used to assess an individual's sexual knowledge and attitudes pre-intervention to enable the work to be tailored to the individuals needs and then administered post intervention to assess for treatment change.

Measures aimed at assessing sexual knowledge in young people with IDD who have sexually harmed need to be sensitive to the types of sexually harmful behaviour perpetrated by these individuals.

Assessing an adolescent's level of socio sexual knowledge related to their risk of sexual reoffending is essential to inform risk management strategies and to identify treatment interventions.

Therefore, the development of reliable and valid assessment tools for this population is imperative for effective assessment, treatment and post treatment evaluation.

Aims of Study

Due to the lack of empirically tested assessment tools for use with adolescents with IDD, the current study aimed to adapt the Knowledge Test component of the Assessment of Sexual Knowledge (ASK) for use with adolescents who display harmful sexual behaviour

with and without IDD. For the first time, four psychometric properties of the adapted measure will be examined to answer the following questions. A) What is the content validity of the questionnaire with reference to its aims. B) What is the internal consistency, and split-half reliability of the questionnaire, and C) What is the test-retest reliability of the measure, does it demonstrate stability over time.

Method

Participants

The test sample consisted of 153 adolescent males aged 12-17 years based within the UK (Mean age = 14.97, SD = 1.57), spread into four groups.

Group A) adolescents who (were assessed by a mental health professional to) fit the diagnosis of intellectual development disorder with no known history of harmful sexual behaviour = 'No HSB IDD' ($n=42$, Mean age = 14.29, SD = 1.72).

Group B) adolescents who (were assessed by a mental health professional to) fit the diagnosis of intellectual development disorder, with a history of harmful sexual behaviour = 'HSB IDD' ($n=27$, Mean age = 15.30, SD = 1.39).

Group C) adolescents without intellectual developmental disorders and no known history of harmful sexual behaviour = 'No HSB No IDD' ($n=41$, Mean age = 15.12, SD = 1.41).

Group D) adolescents without intellectual developmental disorders with a history of harmful sexual behaviour - 'HSB No IDD' ($n=43$, Mean age = 15.28, SD=1.53).

Of the 69 participants in the two IDD group's, 39.1% were classed mild IDD, 42% were classed moderate IDD, and 18.8% were classed severe IDD.

The ethnicity of the samples was mostly White British; 77.8% ($n=119$), this was split across the groups as follows: No HSB IDD, 40.5% ($n=17$), HSB IDD 100% ($n=27$), No HSB No IDD, 92.7% ($n=38$) and HSB No IDD, 86% ($n=37$). The remainder of the sample ($n=34$, 22.2%) was Non-White/Mixed. The splits across groups were; 0% ($n=0$), 59.5% ($n=25$), 7.3% ($n=3$), and 14% ($n=6$) respectively.

Offence data for the two HSB Groups ($n=70$) is provided in Chapter 6.

Design and Procedure

Establishing Content Validity

The author along with the other members of the Learning Disability Working Group (LDWG) conducted a review of existing measures assessing sexual knowledge in individuals with IDD. The LDWG is a multi-agency group of specialist clinical and forensic psychologists from specialist organisations involved in the assessment and treatment of young people with and without IDD who display problematic or harmful sexual behaviour. Meeting once a quarter, the group's focus is to investigate, review, and adapt reliable tools to assess risk and treatment outcomes for young people with IDD and problematic or harmful sexual behaviour. The aetiology of the group, its recruitment methods, member details, and the organisations they represent can be found in Appendix 17.

The review identified that many of the current tools assessing sexual knowledge in individuals were either too basic, out-dated or needed updating to reflect current terminology. Also, those that had been normed had done so on either adult, institutional or Non-IDD populations and contained a large proportion of items not considered to be relevant to risk of harmful sexual behaviour, e.g. Menstruation, Menopause, Contraception, etc. The outcome of the review suggested that the established Assessment of Sexual Knowledge – ASK (Butler et al., 2003) would be most suitable for adaptation for adolescents with IDD and was therefore taken as a starting point.

The ASK was developed as a structured assessment interview, which aims to provide practitioners with a tool to assess the sexual knowledge and attitudes of individuals with IDD aged 16+. The ASK has several components, a knowledge test, a problematic socio-sexual behaviours checklist, an attitudinal assessment and a quick knowledge quiz, the latter of which can be used as a screening or pre-and post-intervention assessment. A picture book consisting of black and white line drawings illustrating male and female anatomy, social interactions, explicit sexual behaviours, etc., is used in conjunction with the questionnaire to assist in clarifying questions and situations that are difficult to describe verbally to individuals with communication difficulties. The Knowledge Test contains 124 items split into 15 sections (1) Parts of the Body; (2) Public and Private Parts and Places; (3) Puberty; (4) Menstruation; (5) Menopause; (6) Masturbation, (7) Relationships (8) Protective Behaviours (9) Sexuality (10) Safe Sex Practices (11) Contraception; (12) Pregnancy and Birth; (13) Sexual health – Screening tests; (14) Sexually transmitted infections; (15) Legal issues regarding sexuality.

Permission to adapt the original ASK was sought and granted by the owners of the copyright, the Secretary to the Department of Health and Human Services, Melbourne, State of Victoria, Australia. The current study concerns the adaptation of the Knowledge Test questionnaire and accompanying picture book, so it is suitable for use with adolescents with and without IDD. Utilising both the structure and themes of an established measure like the ASK was

considered useful, as it would also provide support to the adapted measures content validity.

Members of the LDWG also consulted with professionals within their respective organisations who were currently assessing and delivering interventions on sexual knowledge with young people displaying harmful sexual behaviour. These discussions helped to refine those sections and items in the ASK, considered by professionals to be useful in providing an in-depth examination of sexual knowledge related to a risk of harmful sexual behaviour. The ability of items to inform treatment needs in sex and relationships with a view to providing education, which promotes healthy sexual behaviours, and relationships were also considered in these discussions. In addition, eight teachers/professionals currently involved in the delivery of Sex and Relationships Education in both mainstream and special secondary schools were also invited to comment and review the measure during the development phase. This was to establish if the proposed questions and supporting pictures were consistent with Sex and Relationships education currently taught in UK schools.

During the development stage, several issues were identified. The length of the Knowledge Test (e.g. 124 items) and the challenge this might present to young people with limited attention and concentration skills. Therefore, items considered by professionals to be less related to risk, e.g. Menstruation, Menopause, Contraception, Pregnancy and Birth, Sexually Transmitted Infections and Sexual

Health Screening Tests, were removed. Some items related to contraception and sexually transmitted infections were re-worded and relocated to the Safe Sex section of the new measure.

In addition to reflect the age, cognitive ability and rigidity of thought of the target audience some included items were reworded, e.g. *"Is it against the law for an adult to have sex with or touch their brothers or sisters in a sexy way?"* was reworded to, *"If a person has sex with, or touches their brothers or sisters in a sexual way, could the person get into trouble with the police?"* Additional items on okay and not okay touching, and media related offending were also included, e.g. *"If John shares naked pictures of Mary with his friend Brian, could John get into trouble with the police?"* Other items were reworded to reflect UK laws and colloquialisms.

Feedback from professionals and teachers suggested that some the line drawings accompanying the original questionnaire were "too grown up" and needed to be of younger people. Some depicting sexual behaviours were considered too explicit/ arousing or inappropriate for use with adolescents. Therefore, in collaboration with these individuals, a new supporting picture book was created. Images were selected and adapted from the "Picture Yourself" (Craft & Dixon, 1992) and "Picture Yourself 2" (Dixon, 2006) Social and Sex Education Resource for People with Learning Disabilities. Two images from the original ASK picture book were also adapted for inclusion in the new picture book. Once professionals, teachers and experts, had

established the initial content validity of the draft questionnaire it was then reviewed by two qualified Speech Language Therapists currently working with children and young people. Each provided advice on the linguistic structure of each question to make it more accessible to young people with IDD.

The questionnaire was piloted on 3 young people (two with IDD and one without IDD) within the organisations of two members of the LDWG. Both were community-based settings. The feedback from both the young person and the administrator was used to make further amendments to the picture book, administration procedure, item-wording, range of example answers to help guide scoring. This version was then circulated to all the members of the LDWG for further discussion and amendment before arriving at the final draft version to be wider piloted as part of the study detailed in Chapter Six.

The final working draft of the questionnaire was named the Assessment of Sexual Knowledge in Adolescents –ASKA and contained 76 items across 9 sections; (1) Parts of the Body; (2) Public and Private Parts and Places; (3) Puberty; (4) Masturbation; (5) Relationships; (6) Social Sexual Boundaries; (7) Sexuality; (8) Safe Sex Practices; (9) Sex and the Law (Appendix 18).

The questionnaire was administered, and the data collected via the procedure detailed in Chapter Five. The content validity of the

measure was calculated using the Content Validity Index (CVI). This was used to calculate the content validity for the individual items (I-CVI) and then for each section (S-CVI) of the adapted measure against two predetermined aims. Cronbach's alpha (Cronbach, 1951) was used to test the internal consistency for each section of the adapted measure. The split-half reliability (equivalency of items) was also calculated for each section. A Spearman's rank correlation coefficient was used to examine the test-retest reliability of the measure on a small sub-set of participants. The test-retest sample consisted of nine adolescent males aged 12-17 years based within the UK (Mean age =14.56, SD =1.667), spread into two groups, No HSB IDD ($n=7$) and HSB No IDD ($n=2$).

Ethics

The ethical considerations relating to this study are detailed in Chapter Six.

Results

Face Validity

To evaluate the content validity (DeVon, Block, Moyle-Wright, Ernst, Hayden, Lazzara, Savoy & Kostas-Polston, 2007) of the ASKA, 12 professionals were selected based on their expert knowledge of working with young people with and without intellectual developmental disorders (IDD) who display harmful sexual behaviour (HSB). Each professional was provided with a copy of the measure,

the accompanying picture book and an evaluation form (Appendix 19). Professionals were asked to complete the evaluation form with the ASKA questionnaire and picture book to hand. After reading each item under each section, professionals were asked to rate the relevance of the item to that section heading (underlying construct) keeping the following objectives in mind.

Objective 1: To provide an in-depth examination of sexual knowledge related to the risk of harmful sexual behaviour in adolescents with and without learning disabilities, with a view to informing treatment in sex and relationship matters.

Objective 2: to measure sexual knowledge in adolescents with a view to providing education which promotes healthy sexual behaviour and relationships.

Professionals were asked to rate each item on a four-point scale (from 1 = *not relevant* to 4 = *very relevant*). Ten professionals returned completed evaluation forms and their ratings entered into a spreadsheet. The content validity index for the individual items (I-CVI) was calculated as follows. The I-CVI is the proportion of agreement of the relevancy of each item, which is between 0 and 1 (Lynn, 1986; Waltz & Bausell, 1981). Items receiving a score of 3 or 4 were counted as being relevant and items receiving a score of 1 or 2 were counted as non-relevant the proportion of scores was then calculated. Lynn (1986) recommended that where there were "five

or fewer experts, all must agree on the content validity for their rating for it to be considered a reasonable representation of the universe of possible ratings” (p.383) e.g. the overall item rating should be 1. However, for a scale to be considered as having excellent content validity where there are six or more evaluators this standard can be relaxed to no lower than .78 (Polit & Beck, 2006). Items rated below .78 should either be re-worded or if below .70 eliminated.

The Content Validity Index for individual items (I-CVI) ranged from .50 to 1.00. Most items received an I-CVI rating of .80 or above. Two items received an overall, I-CVI rating lower than .78 for Aim 1, and one item for Aim 2. These are presented in Table 5.1.

Table 5.1. Items receiving an overall I-CVI expert rating of less than .78 in relation to Aims.

Aim	ASKA Section Number	Item Number	Item	Overall I-CVI rating (n=9)
1 and 2	1	2	<i>What are these called? [point to the HANDS]</i>	.50
1	8	61	<i>How would peter know if he had a sexually transmitted infection?</i>	.70

The content validity for each section was calculated by averaging the I-CVI’s for all the items within each section (S-CVI/Ave). A total S-CVI/Ave score of .80 or higher is considered an indication of good

content validity (Hungler & Polit, 1999). The S-CVI/Ave for each section ranged from .87 to .98 for Aim 1 and .93 to 1.00 for Aim 2. Most items for both Aims received an S-CVI/Ave rating of .90 or above (see Table 5.2). These results indicate the content validity of each section of the questionnaire was supported.

Table 5.2. S-CVI/Ave scores for ASKA sections for Aims 1 and 2

Section Number	Description	Overall S-CVI rating (n=10)	
		Aim 1	Aim 2
1	Parts of the Body	.87	.93
2	Public and Private Parts and Places	.98	.98
3	Puberty	.93	1.00
4	Masturbation	.93	1.00
5	Relationships	.97	.97
6	Social-Sexual Boundaries	.98	.98
7	Sexuality	.90	1.00
8	Safe Sex Practices	.78	.98
9	Sex and the Law	.99	.99

Reliability

Internal Consistency of the ASKA was assessed by calculating the Cronbach's alpha coefficient for each section of the questionnaire. Cronbach's alpha tests to see how closely related (correlated) a set of items are under each section are to each other. If the individual section items are shown to be highly correlated, then they are deemed to be measuring the same construct. According to Gliem and Gliem (2003) the Cronbach's alpha's reliability coefficient can range from 0 to 1. The closer the coefficient is to 1 the greater the

internal consistency of the items in the scale. George and Mallery (2003) suggest an alpha of .80 (good internal consistency) is generally what scale developers should aim for but Nunnally (1993) and Kline (1999) have indicated .7 is an acceptable reliability coefficient. The following benchmarks provided by George and Mallery (2003) is generally adopted when interpreting resulting Cronbach's alpha values. $\alpha > .90$ – Excellent, $\alpha > .80$ – Good, $\alpha > .70$ – Acceptable, $\alpha > .60$ – Questionable, $\alpha > .50$ – Poor, and $\alpha < .50$ – Unacceptable. The alpha value is dependent on the number of test items in a scale; too few can result in low alpha values. However, it should be noted that it is possible to get a large alpha value as a result of having many items on a scale and not necessarily because the measure is reliable (Field, 2009). Therefore, caution needs to be taken when interpreting alpha values.

Split half reliability was also used to test the reliability of the measure. Items within each section of the questionnaire were divided into odd and even questions and their scores of the 153 participants compared. If the ASKA was reliable the scores from the two halves should correlate highly, the larger the correlation value the higher the reliability of the measure (Field, 2009).

Table 5.3 summarises the alpha coefficients and split half reliability for each of the nine ASKA sections for the total sample (n=153). The internal consistency of the individual sections of the questionnaire ranged from questionable (.60) for the Puberty section

to excellent (.94) for the Sexuality section. The split half reliability of the ASKA questionnaire ranged from good (.70) to excellent (.94).

Table 5.3. Cronbach's Alpha Values and Split-half Reliability Values for the Individual Sections on the ASKA

Section (n=153)	No. of Items	α	α If item deleted	Split-half reliability (Equivalency of items)
<i>Parts of the Body</i>	13	.88	Why Does a man have testicles? .881	.90
<i>Public and Private Places</i>	6	.80		.85
<i>Puberty</i>	6	.60	Point to the adults. .626	.70
<i>Masturbation</i>	6	.72	Where is it okay for a boy to do this? .744 Where is okay for a girl to do this? .740	.77
<i>Relationships</i>	7	.67	What kind of relationship do these people have? .689	.77
<i>Social-Sexual Boundaries</i>	8	.64	What is happening here? (handshake) .644	.73
<i>Sexuality</i>	10	.90	Where do people usually have sexual intercourse? .904	.94
<i>Safe Sex Practices</i>	5	.81	In which of these pictures could a woman get pregnant .817	.85
<i>Sex and the Law</i>	15	.79		.83

Another way to test the reliability and stability of a test is to administer the measure to the same group of individuals in the same way, on two different occasions, hours or days apart (Portney & Watkins, 2000). It is important the intervening period is long enough to prevent learning or recall. If the measure is reliable then it should produce similar scores for both points in time (Field, 2009). If the correlation between the two separate administrations is high (greater than .07) then the measure is said to have good test-retest reliability (Nunnally & Bernstein, 1994).

Due to participants leaving services or participants and practitioners refusal to complete a second administration of the measure, the number of participants included in the test-retest data was limited. A total of nine participants were administered the test twice to inform the test-retest reliability of the measure. No HSB IDD ($n=7$) and No IDD HSB ($n=2$). The spread of age was across the target age range of 12-17 years, (12 years, $n=1$, 13 years, $n=2$, 14 years, $n=1$, 15 years, $n=1$, 16 years $n=1$ and 17 years, $n=1$).

Test-retest Reliability

The same administrator administered the questionnaire in the same way on both occasions. The break between tests ranged from three to four weeks (depending on availability of the administrator) as this was deemed long enough for the young person not to recall information from the assessment at time one, and short enough for participants to not have gained large amounts of additional sexual

knowledge by time 2. As the data was not normally distributed across each scale the non-parametric Spearman's rank correlation coefficient was used to assess the consistency of responses between the first administration (Time 1) with those from the second administration (Time 2). The recommended minimum standard of .70 was used to determine the test-retest reliability of the measure.

Table 5.4. summarises the test-retest reliability for the ASKA for the test sample ($n=9$). Test-retest coefficients indicated good reliability of .80 or higher, suggesting the ASKA demonstrated good (.87, $p=.002$) to excellent stability (.99, $p=.000$) over time.

Table 5.4. Test- Retest Reliability (Stability of the measure over time)

Scale ($n=9$)	No. of items	$p < .05$	Correlation coefficient for section totals in the ASKA
<i>Parts of the Body</i>	13	.000	.93
<i>Public and Private Places</i>	6	.001	.89
<i>Puberty</i>	6	.001	.89
<i>Masturbation</i>	6	.002	.88
<i>Relationships</i>	7	.000	.97
<i>Social-Sexual Boundaries</i>	8	.001	.92
<i>Sexuality</i>	10	.000	.96
<i>Safe Sex Practices</i>	5	.000	.94
<i>Sex and the Law</i>	15	.000	.97
<i>ASKA Questionnaire</i>		.000	.99
<i>Total Score</i>	76		

Discussion

The aim of the current study was to adapt the Knowledge Test component of the Assessment of Sexual Knowledge – ASK (Butler, et al., 2003) for use with adolescents who display harmful sexual behaviour with and without IDD. Four psychometric properties of the adapted measure were examined to answer the following questions.

A) What is the content validity of the questionnaire with reference to it aims. B) What is the internal consistency, and split-half reliability of the questionnaire, and C) What is the test-retest reliability of the measure, does it demonstrate stability over time.

Face Validity

Assessing the face validity of the measure was considered useful as it provides information regarding the operationalisation of the measure with the target population (Parsian & Dunning, 2009). Face validity can be defined as “whether or not the items sampled for inclusion on the tool adequately represent the domain of content addressed by the instrument,” (Waltz, Strickland, & Lenz, 2005, p. 155). This was addressed in the current study by asking twelve professionals with expert knowledge of young people with IDD and harmful sexual behaviour to rate the items in the ASKA in terms of their relevance to the following objectives:

Objective 1: To provide an in-depth examination of sexual knowledge related to the risk of harmful sexual behaviour in adolescents with

and without learning disabilities, with a view to informing treatment in sex and relationship matters.

Objective 2: to measure sexual knowledge in adolescents with a view to providing education, which promotes healthy sexual behaviour and relationships.

Most items received an I-CVI score of .80 or above demonstrating the items adequately represented the domain of sexual knowledge with regards to the two aims. Two items were identified as having low content validity, "What are these called? (Point to the hands)," and "How would Peter know if he had a sexually transmitted infection?" The rationale for the inclusion of the first item was that it was thought to be a good way of easing the young person into the format and style of questioning of the assessment. It was also to check the young person's general understanding of parts of the body, and therefore thought to have some value. However, it remains clear the item does not meet either of the questionnaires aims and therefore according to Lynn (1986) is invalid and should be eliminated from the scale. The latter item received an overall rating of .70 missing the .78 cut off. There may be some merit in revising this item, so it better addresses the aims of the measure, rather than removing it. This item forms part of the Safe Sex Practices section, which is the smallest section comprising of just 5 items. Eliminating the item may have a detrimental effect on the internal consistency of

the Safe Sex Practice section. Therefore, the revision of the item is preferred.

Calculations using the scale content validity average score (S-CVI) for each section of the ASKA demonstrated the sections adequately represented the domain of sexual knowledge for both aims.

Internal Consistency

The Split-half reliability analysis of the ASKA was shown to range from good to excellent for each section of the measure. Indicating the items within each section were contributing equally to the construct (Sexual Knowledge) being measured. Examination of the individual sections of the ASKA indicated that the internal consistency of the ASKA ranged from questionable to excellent. The lowest alpha coefficients were observed for the Puberty (.60), Relationships (.67) and Social Sexual Boundaries (.64) sections. A further review of the data indicated participants in the two No IDD groups (Groups C and D) aged 15 years and above had scored very highly with little variance in score across these 3 sections, resulting in a ceiling effect for approximately 37% of the overall sample. No ceiling effects were observed in the two IDD samples (Groups A and B). This suggests that the current measure may not be reliable for use with older adolescents without IDD. For seven sections improvements could be made to the alpha coefficient if certain items were deleted. However most of the gains were very small, and therefore due to the information to be gained by their continued inclusion it was

considered more beneficial to leave these items in. However, for some sections deletion or amalgamation of items was considered the better approach, improving the reliability for these sections. For example, removing "Point to the adults," and "What kind of relationship do these people have? (friends)," would not negatively impact on the clinical data as this was also being provided by other items in the scale. In addition, removing the two items identified in the Masturbation section, and replacing these with one amalgamated item e.g. "Where is it okay to do this?" was considered beneficial rather than eliminate both items altogether.

Test re-test

Difficulties obtaining participants for the test re-test (external consistency test) of the measure resulted in a relatively small sample size of 9 participants. It is therefore important to bear in mind that the results obtained, although good, may be skewed and not representative of the larger sample. Running the test-retest again when a much larger sample is available will provide a more accurate test of the measures stability over time. The problem of variability between administrators was addressed by having the same administrator administer the questionnaire at both time one and time two. The results demonstrated that the test obtained high test-retest reliability and that results remained stable over time. However, even with the high correlations observed across the scales none reached a perfect agreement (1.00) correlation. This suggested some change in score between time one and time two. As suggested by Galea, et

al. (2004) this variation in score may have been due to some scale items requiring two answers to obtain the maximum score of 2. At time one maybe one answer was provided, and the corresponding prompt failed to produce another, resulting a partially correct score of 1. At time two when the same question was asked with the corresponding prompt, the required number of responses needed to gain the maximum score of 2 was provided. It is also possible that participant's may have remembered some of the items from time one and perform better or that new knowledge had been acquired between administrations (Galea, et al., 2004) producing a similar effect.

Several limitations in the current study have already been mentioned in this section. One problem, which was also identified by Galea, et al. (2004) was testing concurrent validity as currently other tools measuring sexual knowledge in individuals with IDD have be developed on adult populations, are dated and provide little information with regards to their reliability and validity.

To further strengthen the accuracy of the ASKA, it is recommended that further research be undertaken to explore it's use with females and more culturally diverse IDD adolescent populations, across different settings (e.g. specialist secure forensic settings for adolescents with IDD). In addition, it would be useful to test the questionnaire as to its suitability to measure knowledge acquisition as a result of sex education treatment in adolescents with IDD. As

highlighted in the literature providing sex education that is accessible, realistic and has meaning to individuals with IDD can be problematic (Addison, 2006; Boehning, 2006; Gougeon, 2009). The ASKA might be able to identify where sex education interventions may not be addressing the needs of this population with a view of improving programme effectiveness.

Conclusion

The psychometric properties examined in the current study suggest that the ASKA has potential to be a good tool to measure sexual knowledge in adolescents aged 12-17 years with IDD. However due to observed ceiling effects across some scales it may not be as good at measuring sexual knowledge in adolescents aged 15 years without IDD and therefore should be used with caution in non-IDD adolescent populations.

Chapter 6.

Assessing Sexual Knowledge in Adolescents with And Without Intellectual Developmental Disorders: Is Sexual Knowledge Related to Harmful Sexual Behaviour?

Abstract

The purpose of the current study was to explore whether there were differences in sexual knowledge in adolescents with and without intellectual developmental disorders (IDD) and their counterparts who display harmful sexual behaviour (HSB). Scores obtained on a questionnaire adapted from the Assessment of Sexual Knowledge – ASK (Butler, Leighton & Galea, 2003) was used to compare sexual knowledge in a total of 140 adolescent males split across four groups. (A) No HSB IDD ($n=29$); (B) HSB IDD ($n=27$); (C) No HSB No IDD ($n=41$); (D) HSB No IDD ($n=43$). Data on whether participants had viewed sexually explicit material or not was also collected. Data was also collected on the incidence of sexual victimisation for those adolescents in the HSB groups. Significant differences between groups were observed for level of sexual knowledge, viewing sexually explicit material and sexual victimisation. The study highlighted that although the adolescents with IDD consistently demonstrated lower sexual knowledge than their counterparts without IDD, the HSB IDD group demonstrated significantly higher knowledge on Parts of the Body, Sexuality, Sex

and the Law and Total Knowledge Score, than their No HSB counterparts with IDD.

These findings may go some way to question the Counterfeit Deviance Hypothesis. In the HSB groups, adolescents with IDD experienced significantly higher rates of sexual victimisation than No IDD adolescents. Significant differences in the viewing of sexually explicit material between groups were also observed. In the IDD groups, adolescents with HSB were found to be twelve times more likely to have viewed sexually explicit material than those without HSB. In the No IDD groups adolescents with HSB were three times more likely to have viewed sexually explicit material than those without HSB.

Introduction

Accurate, effective and comprehensive sex and relationships education is an essential component in the development of every adolescent (McDaniels & Fleming, 2016) and can reduce the likelihood of adolescents engaging in risky sexual behaviours (Bearinger, Sieving, Ferguson & Sharma, 2007; Jemmott & Jemmott, 1990; Ryan, Franzetta & Manlove, 2007) and help to protect against sexual victimisation (Acton, 2015; Keywood, 2003; Nettelbeck & Wilson, 2002; Sinclair, Unruh, Lindstrom, & Scanlon, 2015). Sexual knowledge provides adolescents with a good foundation from which to understand their sexual development, which as they develop and grow, will also influence their social, emotional and psychological well-being (Lou and Chen, 2009).

The literature examining sexual knowledge in adolescents with IDD suggests young people with IDD may have poor sexual knowledge (Isler, Tas, Beytut & Conk, 2009; Jahoda & Pownall, 2014; Lunsky, Frijters, Griffiths, Watson & Williston, 2007). It has been suggested that they are afforded less opportunity to learn about sexual matters (Cheng & Udry, 2002; McCabe, 1999; Murphy & O'Callaghan, 2004) and have fewer opportunities to develop appropriate sexual expression (O'Callaghan, 2001) than their typically functioning peers. Where sex education programs are provided, observations suggest the nature of approach can often be indirect, vague, euphemistic (referring to 'the birds and the bees'), delivered from a scientific

perspective, such as describing the function of sex organs rather than from a pleasure, emotional or relational perspective (Addison, 2006; Boehning, 2006; Gougeon, 2009). Given that individuals with IDD have difficulty with learning and retaining information (National Institute for Health and Care Excellence guidance, 2015), such approaches often result in programmes that are difficult to access and lack meaning, and therefore fail to meet the sex and relationships educational needs of adolescents with IDD (Gougeon, 2009).

The Development of Sexual Knowledge

The literature exploring the relationship between age and sexual knowledge in children and adolescents to date has been equivocal. Several studies have found a positive relationship between age and sexual knowledge, in that older adolescents were found to score higher on tests of sexual knowledge compared to younger adolescents (Siti Nor, Wong, Rozumah, Maroamo, Rumaya & Mansor, 2010; Gordon, Schroeder, & Abrams, 1990; Gould & Mazzeo, 1982; Lou & Chen, 2009). It has been suggested that this relationship is due to the older adolescents having a more mature cognitive development and life experiences (Lou and Chen, 2009). Older adolescents may also have been provided with more detailed sex education, and therefore have more resources to better comprehend sexual knowledge, than younger adolescents (Siti Nor et al., 2010). However, other studies exploring sexual knowledge in children and adolescents have not found a positive relationship between age and

sexual knowledge (Hockenberry-Eaton & Richman, DiIorio, Rivero, & Maibach, 1996; Whittaker, Brown, Beckett & Gerhold, 2006). One possible explanation for the absence of a positive relationship between sexual knowledge and age in these two studies may be the relatively small age range of the samples studied (13-15 yrs. and 14-16 yrs. respectively).

Sexual Knowledge and Sexual Offending

Inadequate or inaccurate sexual knowledge has been identified as being a problem area for adult sex offenders (Woodward, 1980; Cumming & Buell, 1997) and leading to misconceptions regarding appropriate sexual behavior, or a distorted understanding of human sexuality (Abel, Becker & Cunningham-Rathner, 1984; Able, Gore, Holland, Camp, Becker & Rathner, 1989). Therefore, by engaging in appropriate sex education interventions these individuals make the transition from deviant to healthy sexual behaviour (Cumming & Buell, 1997).

In their review of the existing literature, Timms and Goreczny (2002) highlighted that a lack of suitable sex education was found to be a common characteristic in adolescents who sexually offend. However, in a later meta-analysis of 82 recidivism studies (1,620 findings from 29,450 sexual offenders) examining the characteristics of both adult and adolescent persistent sex offenders, Hanson and Morton-Bourgon (2005) found low sexual knowledge not to be a significant predictor of sexual recidivism in either population. Their findings indicated that

major predictors of sexual recidivism were the same for both adult and adolescent sexual offenders. These were sexual deviancy (e.g. sexual preoccupation); sexual attitudes (e.g. pro-offending attitudes), intimacy deficits, (e.g. conflicts in intimate relationships, emotional identification with children) and antisocial orientation (e.g. general problems with self-regulation). These findings suggest that for mainstream sexual offenders, low sexual knowledge alone, may not be a primary contributory factor as to why these individuals sexually offend.

In an earlier study conducted by Racey, Lopez and Schneider (2000) the authors compared the sexual knowledge of 36 adolescents convicted of a sexual offence (aged 13-18 yrs.) either incarcerated or in the community, to 38 adolescents convicted of non-sexual offences (incarcerated/community controls). Their findings demonstrated no significant differences in sexual knowledge between the two groups, suggesting that low sexual knowledge might not be a risk factor as to why some young people go on to sexually offend. A later study by van Outsem, Beckett, Bullens, Vermeiren, Van Horn and Doreleijers (2006) offered support to these findings. In their study van Outsem et al. (2006) compared scores obtained on the sexual knowledge scale of the Multiphasic Sex Inventory Juvenile Male Form (MSI J) (Nicols & Molinder, 1984) across three groups of adolescents; non-offenders (secondary school pupils), sex offenders; and non-sexual violent offenders, between the ages of 12 -21 yrs. Scores obtained on the MSI indicated there were no significant differences in

sexual knowledge score between the three groups. The authors concluded that low sexual knowledge did not play an important role in the development or perpetration of harmful sexual behaviour in adolescents.

However, in a similar study around the same time, differences between levels of sexual knowledge of adolescents who sexually offend and their non-offending peers were observed. Again, using the Sexual Knowledge scale of the Multiphasic Sex Inventory Juvenile Male Form (MSI J) (Nicols & Molinder, 1984), Whittaker, Brown, Beckett and Gerhold (2006) compared the sexual knowledge of 'adolescent child molesters' with adolescent non-offenders. Although they did not directly compare IDD and non-IDD child molesters with the non-offenders, 29% of the offending sample was described by referrers to have a mild to moderate 'learning disability'. The authors found that the adolescent child molesters achieved lower total mean knowledge scores compared to their non-offending peers. However, given the study design, it is not possible to determine if those offenders described as having a learning disability had lower total knowledge scores than those functioning within the normal range, and therefore whether this was a significant contributory factor in the observed overall lower sexual knowledge scores for the offending group.

Although the evidence is equivocal whether low sexual knowledge plays a role in the development and continuance of sexually harmful

behaviour in mainstream adult and adolescents who sexually offend, several studies exploring risk factors in those that sexually offend with IDD have suggested that a lack of socio-sexual knowledge may be a primary contributory factor in this population (Barron, Hassiotis & Banes, 2002; Griffiths, Hingsburger, Hoath & Ioannou, 2013; Griffiths & Lunsky, 2003; Lunsky, Frijters, Griffiths, Watson & Williston, 2007). However, the evidence base supporting this hypothesis is sparse.

In recent years, researchers have begun to explore the relationship between sexual knowledge and sexual offending in individuals with IDD more directly. Although relatively limited, most of these studies have attempted to explore the validity of aspects of the 'Counterfeit Deviance Hypothesis' (Griffiths et al., 2013; Hingsburger, Griffiths & Quinsey, 1991). The 'Counterfeit Deviance Hypothesis' is a theory which attempts to explain how sexually inappropriate behaviours might have developed in a subgroup of individuals with IDD. The hypothesis suggests sexual offences are precipitated in some individuals with IDD by factors such as restrictive living environments, lack of sexual knowledge, poor social and heterosexual skills, a poor understanding of the laws of society and social norms, and limited opportunities for appropriate sexual expression, and to establish sexual relationships. Therefore, individuals with IDD who have sexually offended should have lower levels of socio-sexual knowledge than those who do not.

Studies exploring the relationship between sexual offending and low sexual knowledge in adults have disputed that sexual offenders with IDD have lower levels of socio-sexual knowledge compared to non-sexual offenders, and non-offenders with IDD (Lockhart, Guerin and Coyle, 2010; Michie, Lindsay, Martin, & Grieve, 2006, Talbot & Langdon, 2006).

In their revision of the Bender Sexual Knowledge Questionnaire (Bender, Aitman, Biggs & Haug, 1983) Talbot and Langdon (2006) found little support for the lack of sexual knowledge component of the Counterfeit deviance hypothesis. Their study compared sexual knowledge scores on each of the subscales on the questionnaire, across groups of adult sex offenders (treated and non-treated) and non-offenders with IDD. Their findings suggested that the sex offenders had greater knowledge of parts of the body, sexual intercourse and sexuality compared to their non-offending peers. They reported finding no significant differences in sexual knowledge between the treated and non-treated sex offenders, although they did note that treated groups did tend to score higher. The authors took the lack of difference in their findings to suggest limited sexual knowledge may not be a factor associated with why some adults with IDD might sexually offend.

To date there are no known studies exploring whether a lack of sexual knowledge (as suggested by the Counterfeit Deviance

Hypothesis) is a factor as to why some adolescents with IDD engage in harmful sexual behaviour.

Blasingame, Creeden and Rich (2015) suggest that poor education on sexual matters can prove to be problematic for adolescents with IDD, who often have less social exposure and sexual knowledge compared to their non-disabled peers. The authors suggest the sexual behaviours of these adolescents are more likely to develop based on their experience of sexual victimisation or by using pornography as a means of sexual education.

Sexual Victimization

Sexual knowledge is an important factor when protecting against sexual vulnerability and victimisation. In more recent times the literature has constantly demonstrated that children and adolescents with IDD are more likely to experience sexual victimisation than their non-disabled peers (Horner-Johnson & Drum, 2006; Jones, Bellis, Wood, Hughes, McCoy & Eckley, 2012; Spencer, Devereux, Wallace, Sundrum, Shenov, Bacchus, & Logan, 2005).

Individuals with IDD are at an increased risk of, sexual victimisation. Factors contributing to their increased vulnerability include: needing to rely on others for care and support, which might extend to personal and intimate care, limiting their control over who touches their bodies (Withers & Morris, 2012). Such experiences may lead to confusion over personal boundaries increasing their risk of sexual

exploitation. Individuals with IDD are often more isolated from the rest of the community, which can increase the likelihood abuse will occur and that it will be less likely to be detected. Having inadequate knowledge on social-sexual boundaries may limit their ability to recognise abusive situations and behaviours, that they are illegal and that they have a right to say no, increasing their vulnerability to abuse (Withers & Morris, 2012).

A study conducted by Sullivan and Knutson (2000) suggested sexual victimisation rates in adolescents with disabilities was up to four times more than that seen in their non-disabled peers. Research with adolescents who have sexually harmed/committed sexual offences with IDD has also found an increased likelihood of victimisation within this population (Blasingame, 2005; Nankervis, Hudson, Smith, & Phillips, 2000). It has been proposed that for some adolescents with IDD (as with other populations) these abusive sexual experiences may interfere with healthy sexual development, of which one consequence might be problematic sexual or offending behaviour (Blasingame, Creeden & Rich, 2015).

In a retrospective study of adult male offenders with IDD, Lindsay, Law, Quinn, Smart and Smith (2001) found that sexual victimisation in childhood was significantly more prevalent in adult sex offenders (38%) than adult non-sexual offenders (12.7%). In a later study, Lindsay, Steptoe and Haut (2011) observed similar differentials in rates of historic sexual victimisation between adult sexual (32.6%)

and non-sexual offenders (16%). The authors considered these findings as offering some support to the hypothesis that individuals with IDD might be more likely to replicate their experiences, and less able to understand that these were abusive and not be repeated with others.

In their recent revisit of the Counterfeit Deviance Hypothesis Griffiths et al. (2013) suggest that these findings lend credence to the counterfeit deviance hypotheses, in that individuals with IDD experience increased rates of sexual victimisation, exposure to, and experience with deviant sexual behaviour than typical populations. Griffiths et al. (2013) suggest that in accordance with the cycle of abuse theory, past sexual victimisation could be a modelling factor, influencing future sexual behaviour in some sex offenders with IDD. The authors propose that these negative sexual experiences, along with limited knowledge on what society considers to be appropriate and legal sexual behaviours, may result in the values held by society regarding sexual matters not being assimilated, and therefore these individuals may lack the standards in which to judge their own or others behaviour.

However, it should be noted that many individuals with and without IDD, with low sexual knowledge and a history of sexual victimisation, do not go on to sexually offend, suggesting other important factors are also involved in the pathway to sexual offending.

Sexual Knowledge and Exposure to Sexually Explicit Material

There is consensus in the literature that there has been a significant increase in the number of young people who are coming into contact with sexually explicit material online, either intentionally or accidentally (Mitchell, Wolak, & Finkelhor, 2007). There is also agreement that these young people can learn sexual behaviours from such encounters (Alexy, Burgess & Prentky, 2009; Haggstrom-Nordin, Sandberg, Hanson, & Tyden, 2006; Haggstrom-Nordin, Tyden, Hanson, & Larsson, 2009; Hunter, Figueredo, & Malamuth, 2010).

There is also some evidence to suggest that adolescents believe pornography can provide a source of sexual education and improve sexual knowledge (Haggstrom-Nordin et al., 2006, p. 391) whilst also providing a means by which they can satisfy their sexual curiosity, and help to establish their sexual identity (Boies, Knudson & Young, 2004; O'Sullivan, 2014; Stonard, Bowen, Lawrence, & Price, 2014). For the current study, pornography is defined as, a picture, movie, or video showing naked people or sex, made to get a person sexually excited. There is also some evidence to suggest that a considerable proportion of adolescents who watch pornography want to try out what they have viewed online (Flood, 2009; Häggström-Nordin et al, 2005; Martellozzo et al, 2016), particularly older male adolescents, for example, those aged 15–16 yrs. compared to adolescents aged 11–12 yrs. (Martellozzo et al., 2016).

In their meta-analysis of pornography consumption and actual acts of sexual aggression in the general population, Wright, Tokunaga and Kraus (2016) found on average adolescents and adults who consumed pornography were more likely to hold attitudes supportive of sexually aggressive behaviours, and to engage in such behaviours, compared to those individuals who do not consume pornography, or consume it less frequently.

In a separate self-report, longitudinal study of 1577 American adolescents, Ybarra, Mitchell, Hamburger, Diener-West and Leaf (2011) found that adolescents who were regularly exposed to violent pornography were up to six times more likely to report engaging in sexually aggressive behaviour than those adolescents not exposed. In contrast, in their self-report study exploring the association between online pornography behaviours and risky sexual behaviours in 6054 adolescents aged 16-20 years, Luder, Pittet, Berchtold, Akre, Michaud and Suris (2010) found no such association. The authors concluded that pornography use was not associated with risky sexual behaviours in this population. A finding that was consistent regardless of whether the individual was willingly or accidentally exposed.

In their study exploring the relationship between developmental factors and deviant sexual preferences in adult rapists, Beauregard, Lusser and Proulx (2004), found the use of pornography during childhood and adolescence was related to the development of deviant

sexual preferences in adult rapists. To date research into pornography use and its relationship to harmful sexual behaviour in adolescents is scarce. Those relatively few studies comparing pornography use amongst adolescents who have sexually offended and those who have not got a reported history of this type of behaviour, and non-sexual offenders, have found that adolescent sex offenders tend to be exposed to more explicit and violent pornography before the age of 10 years (Leguizamo, 2000), and have a tendency to view more pornography than adolescent non-sex offenders, during both childhood and adolescence (Burton, Liebowitz and Howard, 2010). In their meta-analysis of 59 independent studies comparing adolescent males who have sexually offended with adolescent male non-sex offenders, Seto and Lalumiere (2010) were able to offer some support to this finding. Their analysis suggested that sex offenders were significantly more likely to have had early exposure to sex or pornography than non-sex offenders. The authors took this finding to suggest there may be a link between viewing sexually explicit material in childhood and adolescence, and atypical sexual interests, and sexually aggressive/harmful behaviour.

More recently Hollis and Belton (2017) conducted a study exploring the behaviours, background and characteristics of male children and adolescents whose harmful behaviour was all technology-assisted (TA-HSB, $n= 21$) (e.g. had used the internet and/or any image-creating/sharing or communication device to perpetuate harmful sexual behaviour); whose harmful sexual behaviour was all offline

(Offline only HSB, $n=35$); and those who engage in both (Dual HSB, $n=35$). Their findings indicated that developmentally inappropriate use of pornography (e.g. by young people under the age of 13) appeared to be more closely related to offline HSB than other forms of TA-HSB, and was identified as a trigger for offline HSB in more than half (56%) of the dual cases. The authors reported that for these individual's pornography use started on average at the same time as the onset of their HSB (on average at nine years of age) and was reported to have been the trigger to their HSB. In contrast, the authors found that other forms of TA-HSB were likely to follow after offline HSB and to occur on average three years later. However, developmental inappropriate use of pornography was the most common type of TA-HSB engaged in (61%) for individuals within the TA-HSB group.

Adolescents in the TA-HSB group appeared to come from more stable backgrounds and experienced more positive parental relationships and have lower levels of trauma and were on average three years older at the onset of their HSB than adolescents in the other two groups. Whereas adolescents in both the dual HSB and offline HSB only groups appeared to have similar backgrounds and characteristics, suggesting that their HSB may have developed in similar ways. Another interesting finding of Hollis and Belton's study was that fewer adolescents within the TA-HSB group had been diagnosed with learning difficulties or a learning disability compared to those in the offline or dual HSB groups (5 % compared to 26%

and 7%, respectively). Significantly more of the TA-HSB group could be defined as 'intelligent or as being a high achiever' (57% compared with 14% and 23% respectively) (Hillis and Belton, 2017; Section 3, Demographic Characteristics). However, the authors did not make any suggestions as to why these differences were observed.

While there are studies proposing a link between viewing sexually explicit material and harmful sexual behaviours in adolescents, to date, there appears to be a lack of studies exploring this link in adolescents with IDD. Therefore, it is not clear, if exposure rates are similar to those of typical adolescents. This current study aims to consider whether exposure rates to sexually explicit material are different between adolescents who have sexually harmed with and without IDD.

Assessment Tools

The paucity of empirical studies investigating the relationship between harmful sexual behaviour and sexual knowledge in adolescents with IDD may be due to a significant lack of reliable and valid assessment tools for use with this population (O'Callaghan, 2001). Almost all the currently available sexual knowledge assessment tools have been developed using adult populations (e.g. The Assessment of Sexual Knowledge - ASK, Butler et al., 2003; the Socio-Sexual Knowledge and Attitudes Assessment Tool-Revised - SSKAAT-R, Griffiths & Lunsky, 2001; Sexual Attitudes and Knowledge

-SAK; Heighway & Webster, 2007; the General Sexual Knowledge Questionnaire - GSKQ, Talbot & Langdon, 2006).

Adolescents with IDD and harmful sexual behaviour responding to assessments not tailored to their level of cognitive functioning can hinder the individuals understanding of the assessment and may invalidate their responses, seriously compromising the correct identification of treatment targets. Developing reliable and valid assessment tools for this population is imperative for effective assessment, treatment, and post-treatment evaluation.

Accurately assessing a young person's sexual knowledge with tools which are age appropriate can help to highlight the young person's lack of knowledge and understanding, their distorted beliefs around sex and any problems/apprehension which may exist (Department of Health, Home Office and Department for Education and Employment, 1999). Assessment will in turn help to identify age-appropriate treatment targets aimed at increasing the individual's skills in establishing and maintaining healthy sexual relationships, while also reducing their risk of harmful sexual behaviour.

When assessing socio-sexual knowledge in adolescents with IDD and harmful sexual behaviour with a view to treatment, Blasingame et al. (2015) stress the importance of first ascertaining if the young person has a sufficient knowledge base, or whether a sex education intervention is needed. They suggest that it is essential to establish

the young person's understanding of concepts such as public and private parts and places, appropriate social-sexual behaviours/social norms, and their ability to distinguish between appropriate and inappropriate sexual partners and behaviours.

Other important factors to consider are the young person's exposure to sexually explicit material, history of sexual victimisation, and their history of harmful sexual behaviour, as these experiences may be influential in the young person's responding and therefore need to be considered when identifying a starting point for intervention.

The proposed study aims to inform the evidence base and service provision for young people with IDD and harmful sexual behaviour. Sexual knowledge, the viewing of sexually explicit material and their relationship to harmful sexual behaviour will be explored across different adolescent populations. Incidence of sexual victimisation will also be explored amongst adolescents who commit harmful sexual behaviour.

Aims and Hypothesis

Aim 1: To explore whether there are differences in sexual knowledge in adolescents with and without IDD and their counterparts who display harmful sexual behaviour (HSB).

Aim 2: To explore whether the history of sexual victimisation is higher in the IDD group compared to No IDD group in those that commit HSB.

Aim 3: To explore whether there is a link between HSB and viewing sexually explicit material (i.e. pornography) in adolescents with and without IDD.

The following hypotheses were therefore made:

Hypothesis one: Older adolescents will have better sexual knowledge than younger adolescents.

Hypothesis two: There will be differences in sexual knowledge for adolescents with IDD in comparison to those without IDD.

Hypothesis three: There will be differences in sexual knowledge for adolescents who display harmful sexual behaviour in comparison to those that don't.

Hypothesis four: For those individuals that commit HSB there will be differences in rates of sexual victimisation for adolescents with IDD in comparison to those without IDD.

Hypothesis five: There will be differences in viewing sexually explicit material between those who commit HSB and those that don't for; a) those with IDD; b) those without IDD.

Method

Participants

The sample consisted of 140 adolescent males aged 12-17 years based within the UK (Mean age = 15.06, SD = 1.51) placed into 4 groups.

- Group A (No HSB IDD) = 29 adolescents who (were assessed by a mental health professional to) fit the diagnosis of both mild (34.5%) and moderate (65.5%) intellectual developmental disorders, and no known history of harmful sexual behaviour ($n=29$, Mean age = 14.41, SD = 1.62).
- Group B (HSB IDD) = 27 adolescents who (were assessed by a mental health professional to) fit the diagnosis of both mild (63%) and moderate (37%) intellectual developmental disorders, with a history of harmful sexual behaviour ($n=27$, Mean age = 15.30, SD = 1.39).
- Group C (No HSB No IDD) = 41 adolescents without a known intellectual developmental disorder and no known history of harmful sexual behaviour ($n=41$, Mean age = 15.12, SD = 1.41).

- Group D (HSB No IDD) = 43 adolescents without a known intellectual developmental disorder with a history of harmful sexual behaviour ($n=43$, Mean age = 15.28, $SD=1.53$).

Each group had the same age range of participants, 12-17 years. No significant difference in mean age was observed across the four groups ($H(3)=6.415$, $p=0.093$, n.s.).

Participants in the No HSB IDD were significantly more Non-White/Mixed ($X^2(3) = 33.097$, $p=0.000$) than the other 3 groups, with 48.3% ($n=14$) being White British/European, and 51.7% ($n=15$) being Non-White/Mixed. Participants in the other 3 groups were less ethnically diverse with 86% or more being classed as White British/European.

HSB Groups

Participants within the two HSB groups ($n=70$) either had a history of contact ($n=64$), or non-contact ($n=6$) harmful sexual behaviour (participants with both contact and non-contact harmful sexual behaviour were placed within the contact group). Contact behaviours included penetration (either by a body part or object) rape, sexual touching (non-penetrative), sexually touching or having intercourse with an animal. Non-contact behaviors included, indecent exposure, voyeurism, grooming, electronic media related offences and coercing somebody else to do sexual things.

A similar amount of participants from both HSB groups had taken part in sex education as part of an intervention, 51.9 % in the HSB IDD group, and 55.8% in the HSB No IDD group. A similar rate was observed for participants in both groups who had not undertaken sex education as part of an intervention, 48.1% and 44.2% respectively. Therefore, whether participants did or did not receive sex education as treatment, was not considered to be a confounding variable ($\chi^2(1) = 0.105, p=.746, n.s.$). However, the duration, content and method of delivery of such interventions could not be determined in the current study. Despite efforts to collect this level of information.

Recruitment

Participants in the two No HSB groups were recruited from two mainstream and three special secondary schools based in the UK. All male pupils meeting the inclusion criteria were provided with a study information pack by the teacher responsible for that schools Sex and Relationships Education Programme to take home to their parent(s)/ legal guardian(s). Within the pack the relevant information sheet (Appendix 22) provided an outline of the study, why the young person had been asked to participate, and what would be expected of him should he participate.

Participants in the two HSB groups were recruited from UK specialist community-based services working with adolescent males with and without intellectual developmental disorders (IDD) who display harmful sexual behaviour (HSB). Several organisations were provided with information on the study. Practitioners were asked to identify

individuals they believed suitable for participation in the study and where appropriate to provide an information pack to the potential participant's legal guardian (either parents, guardians or the local authority in the case of a 'Looked After Child') outlining the study and what would be expected of the young person should they take part in the research.

Obtaining participants for the study proved problematic due to the resistance from some parents/guardians and clinicians within the participating organisation's/schools to participate. This was most likely due to the sensitivity of the study subject matter; therefore, the reasons and nature of any sampling bias can only be speculated.

Design

A between-subjects design was employed. The four groups of participants were compared, and the data was analysed using SPSS.

Statistical Analysis: To establish if variables were normally distributed, each variable's skew and kurtosis values were divided by their standard errors to produce z-scores. Where these z-score values fell outside the parameters for a normal distribution of ± 1.96 , the significance values of the Kolmogorov-Smirnov tests of normality were scrutinised. Where this value was $\leq .05$ non-parametric tests of statistical analysis were performed. None of the variables of interest met the assumptions of parametric data.

Chi Square and Fishers Exact were used to explore associations between groups on variables of interest, such as the viewing of sexually explicit material and sexual victimisation. Kruskal-Wallis and Mann-Witney U and tests were used to determine if there were significant differences between groups on the sexual knowledge questionnaire section scores and Total Knowledge score.

Measure

Sexual Knowledge was measured using a questionnaire adapted from the Knowledge Test component of the Assessment of Sexual Knowledge – ASK (Butler, et al., 2003), see Chapter Five. The questionnaire (Appendix 18) termed the 'Assessment of Sexual Knowledge in Adolescents' or 'ASKA', comprised of 76 knowledge items across nine sections: (1) Parts of the Body; (2) Public and Private Parts and Places; (3) Puberty; (4) Masturbation; (5) Relationships; (6) Social Sexual Boundaries; (7) Sexuality; (8) Safe Sex Practices; (9) Sex and the Law. Items were scored 0 for incorrect, 1 for partially correct (where applicable) and 2 for correct. Some of the items in the measure required more than one response to receive a score of 2. Each of these items was accompanied by a specific prompt such as "Anything Else?" to elicit further responses. If the respondent provided a partial response to such items, then they were scored 1 (partially correct). The maximum score for the adapted measure was 152. A picture book consisting of black and white line drawings illustrating male and female anatomy, social interactions, explicit sexual behaviours, etc., was used alongside the

questionnaire. As suggested by Galea, et al. (2004) using pictures can help clarify questions and situations which might be difficult to describe verbally to individuals with communication difficulties.

For the purposes of the current study an additional section (Section 10) was added to the end of the questionnaire. This was to collect self-report information regarding the young persons' acquisition of sex and relationships knowledge and exposure to sexually explicit material (e.g. viewing pornography). This section did not form a component part of the of the ASKA questionnaire.

Procedures

All administrators had previous experience working with young people with intellectual development disorders. All were trained in the use of the measure and provided with a written instruction pack by the primary researcher prior data collection. Participants in the two HSB groups were administered the questionnaire on a one to one basis by a member of their usual care team e.g. their therapist or psychologist. The primary researcher administered the questionnaire to participants of the two No HSB groups (schools-based population). Again, this was done one to one. The questionnaire took between 20 and 35 minutes to complete (depending on the individual's cognitive ability, mood and rapport with the examiner).

The staff member administering the questionnaire was also asked to complete a data capture form (Appendix 20) designed for the

purposes of this study to elicit demographic information, previous sexual knowledge/education information (e.g. hours and content) and intellectual functioning for all participants. A different version of the form was used to elicit additional information with regards to type of harmful sexual behaviour (e.g. contact or non-contact behaviours, see participants section for more detail) and experience of sexual victimisation for the two HSB groups. Sexual victimisation was defined as contact of a sexual nature including being subjected to activities involving non-body contact (e.g. electronic media offences such as sexting, grooming, exhibitionism, etc.) and activities involving physical contact, such as sexual touching, anal, oral and vaginal sex.

Ethics

Ethical approval was sought and granted by the NHS Health Research Authority NRES Committee East Midlands in July 2014 (Appendix 21). Ethical approval was also sought and granted from the Research and Development (R&D) Director of the specialist community-based research sites.

The nature of the research and what was required of participants should they choose to take part was explained using an information sheet (Appendix 22). Participants were informed their entry into the study was voluntary and that they could withdraw from the research at any point without their treatment, care or education being effected. The information sheet explained to participants that their

answers would be anonymised and kept strictly confidential.

Participants were also informed that if at any time they experienced difficult feelings while completing the questionnaire they could take a break or terminate their participation in research and access support from either the person administering the questionnaire, or an identified member of staff.

Participants in the IDD groups had the study documentation read out to them section by section, providing sufficient time for individuals to comprehend and process the information being relayed. The young person's understanding was checked by asking them to repeat back their interpretation of what had been said to them. Once it was clear the participant had understood the purpose of the study and what was required of them they were then asked for their assent to take part.

Potential participants under 16 years of age or 18 years of age with IDD required written consent from their legal guardian(s) prior to participation. For potential participants of the two HSB groups, initial contact was made by telephone to the person(s) who had legal guardianship over the child, by a member of the young person's care team. If interest in taking part was indicated, then an information pack containing an information sheet and a consent form (Appendix 23) was then sent to the guardian's address.

For potential participants in the No HSB groups, pupils meeting the inclusion criteria had an information pack (including the information sheet and consent form) sent home with an accompanying letter from the teacher responsible for the schools SRE programme. The letter briefly outlined the purpose of the contact and the schools support of the study. The pack was addressed to the young person's parent(s)/legal guardian(s). The information sheet explained the purpose of the study and why the young person has been asked to participate, and what would be expected of him should he participate. The information sheet also requested that the parent(s)/legal guardian(s) sign and return the consent form (opt in) if they were happy for the young person to participate in the study. The young person was only approached after their legal guardian had provided written consent.

Eligible participants aged 16 and over without IDD who had been deemed by their clinician/teacher to have capacity to give informed written consent were provided with an information sheet and considered able to provide their own consent if they wished to take part in the study.

Study data was anonymised onto an electronic database using an allocated participant number. A confidential participant identification list (PIL) was kept of the young people's names and corresponding participant numbers so that data could be identified should a participant wish to later withdraw their data from the study. The PIL,

completed consent/assent forms, questionnaires and data capture sheets were treated as confidential documents and kept together in a locked draw in accordance with the Data Protection Act (1998). Only the Primary Researcher had access to this data. Other individuals involved with the study (e.g. co-investigators) had access to password-protected databases containing anonymised participant data.

Results

Sexual Knowledge and Age

To test hypothesis one, 'older adolescents will have better sexual knowledge than younger adolescents', participants were split into two groups, 12 to 15 and 16 to 17 years, using the age of consent as a dividing line.

On comparing the mean total knowledge score across groups both No IDD groups (HSB and No HSB) demonstrated a significant difference in knowledge score with age category, with the 16-17 years group having more knowledge than the 12-15 years group. However, a significant difference in knowledge was not observed for either of the IDD groups (HSB and No HSB). This was due to the large variance in both IDD groups. However, the IDD groups combined showed a trend for the older 16-17 years boys score to be higher than the 12-15 years boys ($f=3.64$, $p = 0.062$), see Table 6.1. below. Therefore, hypothesis one was accepted.

Table 6.1. Sexual Knowledge with Age ($n=140$)

Group	ASKA Mean Total Knowledge Score		
	Age Group 12-15 yrs.	Age Group 16-17 yrs.	Statistic <i>f</i>
HSB No IDD (D) $n=43$	137.30 (12.75) $n=20$	144.30 (6.99) $n=23$	5.17*
No HSB No IDD (C), $n=41$	141.00 (9.03) $n=23$	147.33 (2.30) $n=18$	8.39**
TOTAL No IDD Groups C & D	139.28 (10.94) $n=43$	145.63 (5.61) $n=41$	11.06**
HSB IDD (B) $n=27$	115.62 (14.47) $n=13$	126.79 (22.36) $n=14$	2.33
No HSB IDD (A) $n=29$	106.35 (20.46) $n=20$	112.78 (29.56) $n=9$	0.463
TOTAL IDD Groups A & B	110.00 (18.66) $n=33$	121.30 (25.73) $n=23$	3.64

() = standard deviation; ** $P < 0.01$; * $p < 0.05$

Sexual Knowledge and IDD

To answer hypotheses two a Kruskal-Wallis test was used to explore whether there were differences in sexual knowledge across the four groups. The test revealed a significant difference across the groups on all sections of the ASKA questionnaire including Total Knowledge score ($p=0.00$) see Table 6.2. On the basis the Kruskal-Wallis test was significant, each group was compared to the other to explore which pairs of groups were significantly different.

Post hoc comparisons between IDD and No IDD in those who did not commit HSB indicated that the IDD (Group A) scored significantly lower than the No IDD (Group C) across all sections of the ASKA questionnaire including Total Knowledge Score (see Table 6.3.).

Post hoc comparisons between IDD and No IDD in those committing HSB indicated that the IDD (Group B) scored significantly lower than the No IDD (Group D) across all sections of the ASKA questionnaire, including Total Knowledge Score (see Table 6.3.).

Taken together these results indicate that Hypothesis two is accepted. Participants in both IDD groups (HSB & No HSB) demonstrated significantly lower scores across all sections of the ASKA questionnaire, including Total Knowledge Score compared to their counterparts without IDD (HSB & no HSB).

Sexual Knowledge and HSB

To answer hypotheses three a Kruskal-Wallis test was used to explore whether there were differences in sexual knowledge across the four groups. The test revealed a significant difference across the groups on all sections of the ASKA questionnaire including Total Knowledge score ($p=0.00$) see Table 6.2. On the basis the Kruskal-Wallis test was significant, each group was compared to the other to explore which pairs of groups were significantly different.

Post hoc comparisons between those who commit HSB and those that do not indicated there were no significant differences between the two No IDD groups (C & D) on the ASKA questionnaire for section scores and Total Knowledge Score; with the exception of Puberty, where the No HSB No IDD (Group C) scored significantly higher ($p<0.01$) than the HSB No IDD (Group D), see Table 6.4.

Table 6.2. Descriptive and Inferential Statistics for Sexual Knowledge Scores as Measured by the ASKA (n=140)

	No HSB IDD (A)	HSB IDD (B)	No HSB No IDD (C)	HSB No IDD (D)	Test Kruskal Wallis
ASKA Section Mean Score					
<i>Parts of the Body (SD)</i>	20.03 (5.63)	22.89 (3.15)	25.39 (1.56)	25.26 (1.33)	H(3)=54.90, p=.000
<i>Actual range</i>	4-26	15-26	17-26	20-26	
<i>Possible range</i>	0-26				
<i>n=</i>	29	27	41	43	
<i>Public/private parts/places(SD)</i>	10.10 (2.91)	10.70 (1.79)	11.61 (0.63)	11.77 (0.48)	H(3)=19.91, p=.000
<i>Actual range</i>	0-12	6-12	10-12	10-12	
<i>Possible range</i>	0-12				
<i>n=</i>	29	27	41	43	
<i>Puberty (SD)</i>	9.62 (1.84)	10.07 (2.11)	11.66 (0.73)	11.16 (1.00)	H(3)=34.96, p=.000
<i>Actual range</i>	4-12	4-12	9-12	8-12	
<i>Possible range</i>	0-12				
<i>n=</i>	29	27	41	43	
<i>Masturbation (SD)</i>	11.79 (2.53)	9.26 (2.47)	11.17 (1.84)	10.90 (1.77)	H(3)=38.16, p=.000
<i>Actual range</i>	1-12	4-12	4-12	4-12	
<i>Possible range</i>	0-12				
<i>n=</i>	29	27	41	43	

<i>Relationships (SD)</i>	11.79 (2.53)	11.96 (2.19)	13.63 (0.73)	13.53 (0.93)	$H(3)=28.29,$
<i>Actual range</i>	4-14	7-14	11-14	11-14	$p=.000$
<i>Possible range</i>	0-14				
<i>n=</i>	29	27	41	43	
<i>Social Sexual Boundaries (SD)</i>	14.48 (2.15)	14.04 (2.83)	15.80 (0.46)	15.84 (0.37)	$H(3)=24.46,$
<i>Actual range</i>	8-16	7-16	14-16	15-16	$p=.000$
<i>Possible range</i>	0-16				
<i>n=</i>	29	27	41	43	
<i>Sexuality (SD)</i>	8.21 (4.63)	12.33 (4.67)	18.29 (2.51)	17.49 (3.01)	$H(3)=71.06,$
<i>Actual range</i>	0-18	4-20	9-20	9-20	$p=.000$
<i>Possible range</i>	0-20				
<i>n=</i>	29	27	41	43	
<i>Safe Sex Practices (SD)</i>	4.93 (3.16)	5.67 (3.32)	9.46 (0.90)	8.58 (2.37)	$H(3)=49.27,$
<i>Actual range</i>	0-10	0-10	8-10	2-10	$p=.000$
<i>Possible range</i>	0-10				
<i>n=</i>	29	27	41	43	
<i>Sex and the Law (SD)</i>	21.07 (4.18)	24.30 (3.51)	26.68 (2.09)	26.84 (2.84)	$H(3)=47.22,$
<i>Actual range</i>	6-26	18-30	20-30	19-30	$p=.000$
<i>Possible range</i>	0-30				
<i>n=</i>	29	27	41	43	
<i>Total Knowledge Score (SD)</i>	108.34 (23.30)	121.40 (19.47)	143.78 (7.56)	141.05 (10.56)	$H(3)=62.65,$
<i>Actual range</i>	69-144	74-152	114-151	105-152	$p=.000$
<i>Possible range</i>	0-152				
<i>n=</i>	29	27	41	43	

Table 6.3. Between Group's *Post Hoc* Analysis Exploring the Association Between IDD and Sexual Knowledge (ASKA) for HSB and No HSB Groups ($n=140$).

ASKA Section Mean Rank	No HSB Groups			HSB Groups		
	IDD (A) $n=29$	No IDD (C) $n=41$	Mann Whitney U Test	IDD (B) $n=27$	No IDD (D) $n=43$	Mann Whitney U Test
<i>Parts of the Body</i>	19.36	46.91	***	23.78	42.86	***
<i>Public and private parts and places</i>	28.21	40.66	**	26.93	40.88	***
<i>Puberty</i>	22.12	44.96	***	28.98	39.59	*
<i>Masturbation</i>	22.22	44.89	***	26.00	41.47	**
<i>Relationships</i>	25.60	42.50	***	25.80	41.59	***
<i>Social Sexual Boundaries</i>	28.47	40.48	**	25.76	41.62	***
<i>Sexuality</i>	16.43	48.99	***	22.13	43.90	***
<i>Safe Sex Practices</i>	19.53	46.79	***	24.72	42.27	***
<i>Sex and the Law</i>	18.33	47.65	***	26.37	41.23	**
Total Knowledge Score	16.66	48.83	***	22.37	43.74	***

No HSB and HSB GROUPS; *** $P<.001$; ** $P<0.01$; * $p<0.05$; No IDD demonstrated higher sexual knowledge than IDD in both No HSB and HSB Groups.

Post hoc comparisons between those who commit HSB and those who do not indicated significant differences between the two IDD groups (Groups A and B). The HSB IDD (Group B) scored significantly higher than the No HSB IDD (Group A) on Parts of the Body ($p < 0.05$), Sexuality ($p < 0.01$), Sex and the Law ($p < 0.01$), and on Total Knowledge Score ($p < 0.05$). No significant differences were observed between the two groups for scores on the Public and Private Parts and Places, Puberty, Masturbation, Relationships, Social Sexual Boundaries and Safe Sex Practices sections, see Table 6.4.

However, it was noted that the two IDD groups (Groups A & B) had different percentage splits for individuals with mild or moderate IDD, suggesting cognitive ability may have been a confounding factor in the results obtained here. To test if this was the case, *post hoc* comparisons were conducted between IDD category (mild and moderate), and a) Parts of the Body; b) Sexuality; c) Sex and the Law; and d) Total Knowledge score. All comparisons were found not to be significant as follows: a) $U = 373.00$, $Z = -.306$, $p = 0.760$, $r = 0.0017$, n.s.; b) $U = 304.00$, $Z = -1.440$, $p = 0.150$, $r = 0.038$, n.s.; c) $U = 273.50$, $Z = -1.956$, $p = 0.051$, $r = 0.069$, n.s., and d) $U = 310.50$, $Z = -1.329$, $p = 0.184$, $r = 0.032$, n.s.

Table 6.4. Between Groups *Post Hoc* Analysis Exploring the Association Between Harmful Sexual Behaviour (HSB) and Sexual Knowledge (ASKA) in IDD and No IDD Groups ($n=140$)

ASKA Section Mean Rank	IDD Groups			No IDD Groups		
	No HSB (A) $n=29$	HSB (B) $n=27$	Mann Whitney U Test	No HSB (C) $n=41$	HSB (D) $n=43$	Mann Whitney U Test
<i>Parts of the Body</i>	24.07	33.26	*	43.56	41.49	n.s.
<i>Public and private parts and places</i>	27.47	29.61	n.s.	40.01	44.87	n.s.
<i>Puberty</i>	26.00	31.19	n.s.	48.89	36.41	**
<i>Masturbation</i>	25.31	31.93	n.s.	45.59	39.56	n.s.
<i>Relationships</i>	28.29	28.72	n.s.	42.68	42.33	n.s.
<i>Social Sexual Boundaries</i>	29.50	27.43	n.s.	42.24	42.74	n.s.
<i>Sexuality</i>	22.14	35.33	**	46.34	38.84	n.s.
<i>Safe Sex Practices</i>	26.78	30.35	n.s.	44.94	40.17	n.s.
<i>Sex and the Law</i>	22.69	34.74	**	40.10	44.79	n.s.
Total Knowledge Score	24.40	32.91	*	45.05	40.07	n.s.

IDD GROUPS; * $P<0.05$, ** $P<0.01$, HSB group demonstrated higher sexual knowledge than No HSB group.

No IDD GROUPS; ** $P<0.01$, HSB group demonstrated higher sexual knowledge than No HSB group.

Taken together these results indicate hypothesis three is accepted, although mainly with reference to the IDD group.

HSB Groups and Sexual Victimization

To test hypothesis four a Fisher Exact test was used to explore whether there was an association between incidence of sexual victimization and those who commit HSB (Groups B & D). A significant association was indicated. Adolescents with HSB IDD (Group B) were significantly more likely to have been a victim of HSB than adolescents with HSB No IDD (Group D) see Table 6.5. Therefore, hypothesis four was accepted.

Table 6.5. Sexual victimization by HSB Sample Group ($n= 52$)

Victim of HSB	HSB IDD (B) $n=19$	HSB No IDD (D) $n= 33$	Test
Yes	78.9% ($n=15$)	45.5% ($n=15$)	Fishers Exact, $p=0.023$
No	21.1% ($n=4$)	54.5% ($n=18$)	
Missing	8	10	

Viewing Sexually Explicit Material

To test hypotheses five a Fisher Exact test was first performed to examine the association between viewing sexually explicit material across the 4 groups. The test indicated there was a significant association ($p=0.00$, Fishers exact test), see Table 6.6.

Table 6.6. Viewed Sexually Explicit Material by Sample Group
(*n*=140)

Viewed Sexually Explicit Material	No HSB IDD (A) <i>n</i>=29	HSB IDD (B) <i>n</i>=27	No HSB No IDD (C) <i>n</i>=41	HSB No IDD (D) <i>n</i>=43	Test
Yes	27.6% (<i>n</i> =8)	74.1% (<i>n</i> =20)	78% (<i>n</i> =32)	93% (<i>n</i> =40)	Fishers Exact, <i>P</i> =0.00
No	72.4% (<i>n</i> =21)	25.9% (<i>n</i> =7)	22% (<i>n</i> =9)	7% (<i>n</i> =3)	

A Chi Square test was performed to explore whether there was an association between viewing sexually explicit material and HSB in the IDD groups (Groups A & B). A significant association was indicated ($X^2(1) = 12.087, p = 0.001$). In the IDD groups adolescents with HSB were twelve times more likely (Chi-Square Likelihood Ratio = 12.567) to have viewed sexually explicit material than those without HSB.

A Chi Square test was performed to explore whether there was an association between viewing sexually explicit material and HSB in the No IDD groups (Groups C & D). A significant association was indicated ($X^2(1) = 3.843, p = 0.05$). In the No IDD groups adolescents with HSB were almost four times more likely (Chi-Square Likelihood Ratio = 3.983) to have viewed sexually explicit material than those without HSB. Therefore, hypothesis five was accepted.

Discussion

The findings demonstrated that older adolescents (16-17 yrs.) had more accurate sexual knowledge than younger adolescents (12-15

yrs.) across all groups. A finding that was consistent with previous studies (Siti Nor et al., 2010; Lou & Chen, 2009). As suggested by Lou and Chen (2009), this finding may also be due to likelihood of older adolescents having more life experiences and more mature cognitive ability to better understand sexual matters than their younger counterparts.

On further scrutiny of the data ceiling effects were observed for the Parts of the Body, Public and Private Parts and Places, Puberty, Social Sexual Boundaries and Relationships sections for participants in the No IDD groups. These were due to the relatively little variance in the high scores for adolescents aged 15 and above in these groups. This suggests that for these individuals the sexual knowledge measured by the ASKA had already been learned. As such, using the ASKA questionnaire to identify treatment needs in adolescents without IDD aged 15 years and above may prove unfruitful. Ceiling effects were not observed on any of the scales across the two age categories for the IDD groups.

The mean Total Knowledge score for those adolescents falling in the 16-17 yrs. category for both IDD groups were observed to be lower than those achieved by adolescents in the 12-15 yrs. category in both the No IDD groups. These findings imply that the acquisition of appropriate and accurate sexual knowledge takes longer for adolescents with IDD.

The reasons for the differences observed here can only be surmised, it may be as O'Callaghan (2001) suggested due to adolescents in the IDD groups having had less opportunities to learn about sexual matters than the participants in the No IDD groups. It might also imply that given the difficulties individuals with IDD have with learning and retaining information (NICE, 2015), where sex and relationships education was provided to adolescents with IDD, it may have been done so using modes that were too abstract or been delivered too infrequently to allow the learning to be consolidated.

Sexual Knowledge

Between-group comparisons indicated that participants in both IDD groups (HSB & No HSB) demonstrated significantly lower scores across all sections of the ASKA, including total knowledge score when compared to their counterparts without IDD (HSB & No HSB). This finding supports the literature in that individuals with IDD tend to have lower levels of sexual knowledge compared to their typically functioning peers (Jahoda & Pownall, 2014; McCabe, 1999; Murphy & O'Callaghan, 2004, O'Callaghan, 2001).

Between group comparisons between those who commit HSB and those that do not indicated that apart from the Puberty section, there were no other significant differences in sexual knowledge for the two No IDD groups (HSB and No HSB). This finding would suggest that for adolescents without IDD, level of sexual knowledge was neither a risk factor or a protective factor with regards to HSB.

The counterfeit deviance hypothesis suggests that some individuals with IDD may sexually offend due to restrictive living environments; lack of sexual knowledge; poor social and heterosexual skills; harmful sexual experiences; a poor understanding of the laws of society and social norms; and limited opportunities for appropriate sexual expression and to establish sexual relationships. If this is the case then we would expect participants in the HSB IDD group would demonstrate lower sexual knowledge than participants in the No HSB IDD group. However, the current study did not support this hypothesis.

Participants in the HSB IDD group scored significantly higher on three of the nine sections of the ASKA (Parts of the Body, Sexuality, Sex and the Law) and Total Knowledge Score. With the exception of Social Sexual Boundaries, the HSB IDD group were also observed to score higher than the No HSB IDD group on all other sections of the ASKA, although these did not reach significance. This finding is similar to those found in studies comparing the sexual knowledge scores between adult IDD sex offenders and IDD non-offenders (Michie et al., 2006; Talbot & Langdon, 2006) and might suggest that sexual knowledge may be a risk factor and not a protective factor for adolescents with IDD.

Although these findings appear not to support the lack of sexual knowledge component of the counterfeit deviance theory, it should be noted that certain other factors might have had a role in this

outcome. It is possible that the higher sexual knowledge scores demonstrated by the HSB IDD group might be as a result of receiving sex education as part of a post offence intervention as just over half (51.9%) of the HSB IDD group had received sex education 'treatment' before completing the ASKA. Previous research has identified significant positive change in levels of sexual knowledge following intervention (Kempton, 1993; Murphy, Sinclair, Hays, Offord, Langdon, Scott, Williams, Stagg, Tufnell, Lippold, Mercer & Langheit, 2004). Therefore, treatment may be an influential factor here.

Another explanation for the results achieved here might be as Lunsky et al. (2006) suggested, that the counterfeit deviance hypothesis may be more applicable to those individuals with IDD whose sexual offences are considered to be more minor or 'nuisance' type offences, such as indecent exposure, public masturbation, and sexual touching rather than to those IDD individuals perpetrating sexual offences more paraphilic in nature. It was not possible to test this idea in the current study due to the participants in both HSB groups having engaged in more serious and paraphilic harmful sexual behaviour.

The IDD groups differed on their percentage splits of Mild and Moderate IDD, when level of IDD was compared with scores on the Parts of the Body, Sexuality, Sex and the Law subscales, and the Total Knowledge score the results were not significant. Suggesting

level of IDD was not a confounding factor for the observed significant differences between the two groups. As found by Michie et al. (2006), this suggests for the IDD groups sexual knowledge has been “acquired and retained” (p. 227) to a greater degree for those adolescents with HSB than those without, irrespective of level of IDD. The differences in sexual knowledge observed between the two IDD groups might, as Michie et al. (2006) pointed out, be better explained by the very fact that the participants in the HSB IDD group by the nature of their harmful sexual behaviour had some experience of sexual contact with others, which may not be the case for participants in the No HSB IDD group. It is also highly unlikely that all of the sexual experiences of the HSB IDD group were completely arbitrary and therefore likely that some degree of “thought and attention to sexuality” (Michie et al., 2006, p. 277) had taken place prior to their harmful sexual behaviour.

Another plausible explanation is that the adolescents in the HSB IDD group may have experienced higher levels of sexual arousal during their development, which resulted in a selective attention towards sexual matters in general. Causing such information to be better retained through rehearsal and perhaps strengthened through the engagement in appropriate sexual behaviours like masturbation, all of which are likely to have had an educative effect (Michie et al., 2006; Lindsay & Taylor 2009).

Although not a significant finding, it could be relevant that the Social Sexual Boundaries section is the only section in which those with HSB scored more poorly in the IDD group. The interaction between a greater awareness of sexual matters, and a more limited understanding of boundaries could feasibly result in more sexually motivated transgressions and is an area that warrants further exploration. Further prospective research may go some way to shed some light on some of the explanations proposed here and may be a better approach than retrospective research.

Sexual Victimization

The findings demonstrated that within the HSB groups adolescents with IDD were significantly more likely to have a history of sexual victimisation compared to those in the No IDD groups, a finding consistent with previous studies (Blasingame, 2005; Nankervis, Hudson, Smith, & Phillips, 2000). The literature states that individuals with IDD have an increased vulnerability to being the victims of abuse (Horner-Johnson & Drum, 2006; Jones, Bellis, Wood, Hughes, McCoy & Eckley, 2012; Spencer, Devereux, Wallace, Sundrum, Shenov, Bacchus, & Logan, 2005). This increased vulnerability is due to a number of factors which include, impairments in intellectual functioning, difficulties in daily living, social and emotional isolation, and needing to rely on others for their care. Care which might extend to personal and intimate care, limiting their control over who touches their bodies. Such experiences are likely to lead to confusion around personal

boundaries and increase their risk of sexual exploitation (Withers & Morris, 2012). Although these factors were not measured in the current study, the supporting evidence base appears to be robust.

For the young people in the HSB IDD group such factors along with low levels of sexual knowledge, particularly in relation to social-sexual boundaries, may have left these young people at an increased risk of sexual victimisation compared to their typically functioning counterparts. As suggested by Withers and Morris (2012), their limited sexual knowledge may have negatively impacted on their understanding of the rules around socio-sexual boundaries, and the legal aspects of sexual behaviour towards others. They may therefore not have recognised that their sexual experiences were abusive and illegal and that they had a right to no.

Under the Counterfeit Deviance Theory, Griffiths et al. (2013) propose that people with IDD experience higher rates of sexual victimisation than typical populations, and that these negative sexual experiences coupled with limited socio-sexual knowledge, could be a modelling factor as to why some individuals with IDD engage in harmful sexual behaviour. It was not possible within the scope of the current study, to directly explore whether previous sexual victimisation was a modelling factor in the perpetration of harmful sexual behaviour for participants in either the IDD or No IDD HSB groups. However, participants in the HSB IDD were found to demonstrate lower levels of sexual knowledge and higher rates of

sexual victimisation than the HSB No IDD group suggesting that these factors may have been influential in the harmful sexual behaviour of this population and therefore may offer some support to the Counterfeit Deviance Hypothesis. Although not conclusive, the current findings may also offer some support to those proposed by Blasingame et al. (2015), that low socio-sexual knowledge and negative sexual experiences may interfere with the healthy sexual development of young people with IDD. As a result, these individuals may be more likely to replicate their negative sexual experiences, and less able to understand that these were abusive and not be repeated with others (Lindsay et al., 2011).

Viewed Sexually Explicit Material

The results of the current study also demonstrated a significant association between the viewing of sexuality explicit material and HSB in the IDD groups. The participants with HSB were found to be twelve times more likely to have viewed sexually explicit material than the those who had not engaged in HSB. A significant association between viewing sexually explicit material and HSB was also observed in the No IDD groups, but to a much lesser degree than in the IDD groups. These findings suggest viewing sexually explicit material may be linked with HSB in adolescents, but the strength of this association is greater for those adolescents with IDD.

It might be that there is a link between their own sexual victimisation and the motivation to seek out sexual information online. It is plausible that in cases where the monitoring is lax by caregivers that there is an increased vulnerability to them becoming a victim of sexual harm as well as increased opportunity to seek out sexually explicit material and sexually offend. Home environments where supervision and monitoring is lax may also be indicative of the presence of other vulnerability factors not accounted for within the scope of this study. This may be more apparent for the IDD group as when left unsupervised they may be less likely to go out with peers (due to limited social skills), and more likely occupy their time on the internet. It would be interesting to explore whether the usage of internet enabled devices is significantly different within an IDD group, i.e. in terms of their use of social media etc. to determine if the function of their internet use is more limited, rather than as an aid to social connectedness, which it could be argued is the case within a normal adolescent population.

Limitations

This study was primarily exploratory as to date no study has explored differences in sexual knowledge in adolescents with and without intellectual developmental disorders and their counterparts who display harmful sexual behaviour. Due to the nature of the study and the sensitivity of the subject matter, obtaining participants for the study proved problematic. Resistance was experienced from some parents/guardians and clinicians/teachers

within the participating organisations and schools. Due to ethical restrictions preventing the primary researcher making direct contact with potential participants this ultimately resulted in small sample sizes within each group. Small sample size does reduce statistical power and can inhibit the detection of significant differences between groups, a factor that may have influenced the results in the current study where no significant differences were indicated. The range of age and mix of demographic variables (e.g. geographical area, age, ethnicity, level of functioning, sexual victimisation, and offence type, etc.) was dictated by those young people agreeing to take part in the study. A further limitation that must also be considered is the possibility that some participants in the No IDD groups may have an unidentified IDD which could be a confounding factor.

It was not possible in the current study to examine differences in age at first exposure, duration, frequency, and severity of the sexually explicit material viewed across groups, and how these factors might have also impacted on those adolescents who engaged in harmful sexual behaviour. Therefore, limiting the scope of the findings related to viewing sexually explicit material presented here. Caution should always be taken when generalising the findings from one study to another due to the variations in the characteristics of the sample populations. Further research regarding sexual knowledge should take account of the types of HSB engaged in by the adolescents; experience of sexual victimisation; exposure to

sexually explicit material; as well as the extent and nature of any formal sex education received.

The non-offending samples in this study were recruited from schools which place an emphasis on comprehensive sexual education. In contrast, there was little information available about the nature of sex education the offending sample may or may not have received. It was therefore not possible to control for the type and quality of sex education received by participants, which may have influenced the total knowledge score across groups. Future research should be conducted to determine if the differences in sexual knowledge amongst adolescents with and without HSB and IDD presented here can be replicated. Such studies should also aim to investigate the extent to which any such differences observed may also be attributable to the quality and quantity of sex and relationships education provided across these groups.

Conclusion

In the empirical study a number of comparisons across groups were made for level of sexual knowledge, incidence of sexual victimisation and viewing of sexually explicit material.

1. Total Sexual Knowledge score was compared between older adolescents (aged 16 – 17 yrs.) and younger adolescents (aged 12-15 yrs.) using the age of consent as a dividing line. Older

adolescents were found to have significantly higher sexual knowledge scores than younger adolescents in both No IDD groups (Groups C & D). However, a significant difference in knowledge was not observed for either of the IDD groups (Groups A & B). However, the IDD groups combined showed a trend for the older adolescents (16-17 yrs.) score to be higher than that of the younger (12-15 yrs.) adolescents.

2. Sexual knowledge was compared between IDD and No IDD groups for those adolescents who did not commit harmful sexual behaviour. Group A (No HSB and IDD) showed significantly less sexual knowledge than group C (No HSB No IDD). Therefore, adolescents with IDD were found to have lower levels of sexual knowledge than adolescents without IDD in those with no history of harmful sexual behaviour.

3. Sexual knowledge was compared between IDD and No IDD groups for those adolescents who had been identified and referred to specialist services for harmful sexual behaviour. Group B (HSB and IDD) showed less sexual knowledge than group D (HSB and No IDD). Therefore, adolescents with IDD were found to have lower levels of sexual knowledge than adolescents without IDD in those with a history of harmful sexual behaviour.

4. Sexual knowledge was compared between those adolescents who commit HSB and those that do not in the absence of IDD. Group C (No HSB and No IDD) showed no significant difference in sexual knowledge compared to group D (HSB and No IDD). Thus, for adolescents without IDD sexual knowledge is neither a risk factor or a protective factor.

5. Sexual knowledge was compared between those adolescents with IDD who commit HSB and those who do not. Group A (No HSB and IDD) showed less sexual knowledge than group B (HSB and IDD), therefore the Counterfeit Deviance Hypothesis was not supported. This suggests sexual knowledge may be a risk factor and not a protective factor for adolescents with IDD, or that there may be another mediating factor. For example, the arousing nature of watching sexually explicit material and lacking coping skills or healthy sexual outlets, may coincide with an interest in obtaining accurate sexual knowledge.

6. A significant association was observed between incidence of sexual victimisation and those who commit HSB (Groups B & D). Adolescents with HSB and IDD (Group B) were found to be significantly more likely to have been a victim of HSB than adolescents with HSB No IDD (Group D).

7. A significant association between viewing sexually explicit material and HSB was observed in both the IDD and No IDD

groups. The strength of this association was found to be much greater for those adolescents with HSB and IDD (Group B). Suggesting that viewing sexually explicit material may be linked with HSB and may have a greater impact on adolescents with IDD.

The current study highlighted that although the adolescents with IDD consistently demonstrated lower sexual knowledge than their counterparts without IDD, the HSB IDD group demonstrated higher sexual knowledge and had viewed sexually explicit material at a higher rate than their No HSB IDD counterparts. Adolescents in the HSB IDD group were also found to experience higher rates of sexual victimisation than typically functioning adolescents with HSB. These findings might suggest that a lack of sexual knowledge may not be a contributory factor in why some young people with IDD go on to display harmful sexual behaviour and may go some way to question the lack of sexual knowledge component of the Counterfeit Deviance Hypothesis in this population. If there is a deficit related to sexual knowledge, it may be more specific, i.e. related to social-sexual boundaries and further research could explore more about the mechanisms of this and how it could be better assessed.

This study highlighted the usefulness of the ASKA questionnaire, as a clinical tool when assessing sexual knowledge in adolescents aged 12 to 17 yrs. with IDD, who may or may not have engaged in HSB. The questionnaire is fairly easy to administer and can be used by

clinicians to assess sexual knowledge in adolescents with IDD with a view to intervention. The questionnaire may also be used as a pre – post-treatment measure to evaluate the effectiveness of sex and relationship education interventions with this population. However, ceiling effects were observed across some sections of the ASKA for adolescents in the No IDD groups aged 15 years and above. Further scrutiny of the data suggested that for these adolescents those areas of sexual knowledge measured by the ASKA may have already been learned, and therefore using the ASKA questionnaire with this population may prove less fruitful.

Chapter 7.

Discussion

The five studies presented in this thesis examined psychological and criminogenic factors associated with individuals with intellectual development disorders (IDD) who sexually harm. As proposed by the Counterfeit Deviance Hypothesis (Griffiths, Hingsburger, Hoath and Ioannou; 2013; Hingsburger, Griffiths & Quinsey, 1991) a particular focus of this thesis was to answer the question whether limited sexual knowledge was a factor as to why some individuals with IDD go on to sexually harm. The outcome of the systematic review indicated some risk factors were more prevalent in individuals with IDD that sexually offend.

The specific focus of the systematic review, determining empirically if there were common risk factors seen in male sex offenders with IDD that could discriminate them from other male populations with and without IDD, was considered necessary if practitioners were to be responsive to both the ideographic and nomothetic treatment needs of sexual offenders with IDD. Identifying factors that discriminate individuals with IDD who sexually offend from those without IDD would lead to the development of more accurate assessment tools and more tailored and effective treatment provision for these individuals.

Risk factors found not to discriminate between sexual offenders with IDD and comparison groups were, a poor family background (Gilby et al., 1989; Hayes, 2009), rate of anger problems (Fortune et al., 2004), level of self-esteem (Gillis et al., 1998) and general hostility (Chung, 2002; Gillis et al., 1998).

Findings, on the whole, indicated that risk factors predicting sexual offence recidivism are similar to those identified in mainstream studies (Fitzgerald et al., 2011, Harris & Tough, 2004; Lindsay, Elliot & Austell, 2004). Compared to adolescents without IDD who sexually offend, adolescents with IDD were found to demonstrate less specificity for the gender of their victims and tended to target victims who were peers or under the age of 12 years. They were also more likely to have a reported history of being a victim of abuse (sexual, physical, emotional and neglect) compared to their Non-IDD counterparts (Fortune et al., 2004; Hayes, 2009). Sexual offenders with IDD presented with more social skills deficits and were rated by their parents as having more social problems within the clinical range than adolescent sexual offenders without IDD (Fortune et al., 2004).

Compared to their Non-IDD counterparts, adult sex offenders with IDD were more likely to have a prepubertal victim, a prepubertal male victim, a very young victim, and less likely to have a female victim (Rice et al., 2008). They were more likely to have been a victim of physical abuse during childhood (Hayes, 2009), and to

have committed less serious violent (non-sexual) offences (Rice et al., 2008), but were more likely to be diagnosed with aggressive behaviour than their non-IDD counterparts (Hayes, 2009).

Adult sexual offenders with IDD were observed to demonstrate less rule breaking behaviours than non-sexual offenders with IDD (Van den Bogaard et al., 2013), and were found more likely to hold offence supportive beliefs/attitudes.

Compared to their non-offending counterparts, sexual offenders with IDD were more likely to experience poorer relationships (Steptoe et al., 2006), to be impulsive (Van den Bogaard, et al., 2013), demonstrate interpersonal aggression and hostility towards women (Gillis et al., 1998) and engage in rule-breaking behaviour (Nardis, 1994).

Adult Sexual offenders with IDD were found to have higher levels of sexual knowledge compared to non-offenders with ID and similar levels of sexual knowledge compared to non-sexual offenders with IDD (Michie et al., 2006; Nardis, 1994). However, some degree of caution needs to be undertaken when generalising these findings as there were some methodological flaws. In the Nardis study, small sample sizes were employed (n=12) limiting the ability to detect differences between the sample and controls; their offending sample also consisted entirely of sexual offenders who had been diagnosed with paedophilia. In the two studies undertaken by Michie et al.

(2006) the sample consisted of a group of offenders who had committed sexual offences against children and adults. It is, therefore, possible that observed difference between the groups in these samples may also reflect differences in sexual knowledge levels between different types of sexual offender rather than in offenders with or without intellectual disability more generally. No studies measuring sexual knowledge in adolescents with or without intellectual disabilities were identified in the current review. Therefore, the systematic review was unable to answer the question of whether a lack of sexual knowledge is a risk factor in young offenders with IDD who sexually harm and was questionable for adult offenders with IDD who sexually harm.

Chapter three presented a case study illustrating the assessment, case formulation, treatment and outcome for an adolescent male with limited cognitive ability who had displayed harmful sexual behaviour. The integrated theories of sexual offending (Marshall & Barbaree, 1990; Ward & Beech, 2006) and the more specific Counterfeit Deviance hypothesis (Hingsburger, Griffiths & Quinsey, 1991), helped to provide some explanations as to the aetiology and purpose of the client's harmful sexual behaviour. In particular, how his adverse early life experiences and developmental trauma disorder negatively impacted on his attachments, affect identification skills, social and self-regulation skills, problem-solving deficits and low self-esteem.

The client's history, limited cognitive ability and pre-treatment assessment provided some support towards the Counterfeit Deviance Hypothesis (Hingsburger, Griffiths and Quinsey, 1991). Client D was found to lack appropriate and comprehensive sexual knowledge and had an impaired understanding of socio-sexual boundaries and the rules and social norms of society. His restrictive living environment (since age 13) and limited socio-sexual knowledge, limited social skills and difficulties understanding, trusting, relating and feeling connected to others alongside his limited affect regulation in social situations, are likely to have resulted in his poor social skills and overt and often aggressive sexualised behaviours when attempting to court others, giving some support to the findings of the systematic review.

The case study also outlined a one to one intervention aimed at helping the client understand the impact of his trauma response on his affect identification and current emotional reactions (Blaustein & Kinnibugh, 2010). The post-intervention assessment highlighted the client had made several positive shifts within his identified treatment targets. But, there was still room for improvement. Particularly with regards to his level of socio-sexual knowledge, his ability to self-regulate and his tendency to engage in aggressive and rule-breaking behaviours.

However, a major limitation of his assessment was the lack of tools available to accurately and comprehensively measure his level of

sexual knowledge in those areas more associated with risk of harmful sexual behaviour. On a review of the measures currently available the Knowledge Test component of the Assessment of Sexual Knowledge – ASK (Butler, Leighton & Galea, 2003) was selected. The measure had been designed for use with people with mild to moderate intellectual disabilities (IQ 50-70) aged 16 yrs. and over. Given Client D's borderline intellectual functioning (IQ 70) and history of harmful sexual behaviour, it was considered appropriate.

However, although comprehensive the measure was lengthy (124 items), requiring him to stay focused for over 35 mins, which was difficult given his behaviour and affect regulation difficulties. Also, the measure contained some items considered not related to risk (e.g. Menopause, Menstruation, Pregnancy and Birth, Sexual Health Screening Tests). Client D's reaction to the Sexual Knowledge measure, (his expressed discomfort, disgust and embarrassment), difficulty containing his sexual arousal (due to finding the supporting line drawings to explicit), prompted him to complete the measure quickly, and guessing the answers he was unsure about. Therefore, his scores on this measure were unable to reflect the true level of his sexual knowledge. These events highlighted the need for an appropriate, comprehensive, but targeted sexual knowledge measure aimed at young people with IDD, who engage in harmful sexual behaviours. Such measures should be supported with visual

imagery that is designed to contextualised/inform items but not to sexually arouse/disgust or embarrass the respondent.

It was as a result of Client 'D's reaction that the decision was made to develop a comprehensive sexual knowledge assessment tool for practitioners working with adolescents (aged 12-17) with IDD who display harmful sexual behaviour. Therefore, the decision to critique The Knowledge Test and Quick Knowledge Quiz components of the ASK was made with this aim in mind. The critique explored the development of ASK in relation to other available assessment tools aimed at assessing sexual knowledge in individuals with IDD. The Knowledge component of the tool assessed an individual's knowledge on parts of the body, sexual behaviour in public and private settings, puberty, menstruation, menopause, masturbation, relationships, protective behaviours, sexuality, safer sex practices, contraception, pregnancy and birth, sexual health and screening tests, sexually transmitted infections, and issues around legal rights and behaviours regarding sexuality.

During its development, the tool was found to have good content and face validity. Test-retest reliability was assessed on 96 individuals aged between 18 and 57 years with mild to moderate IDD. Comparisons on time one and time two data indicated that Test re-test agreement ranged from 60%-100% (M= 83%) across all 124 items measured. The poorest level of agreement was observed in the public and private parts and places (69%) with the other knowledge test sections achieving between 78%-91%. Inter-

rater agreement ranged from 67% to 100% across items at time 1, and from 82% to 100% at time 2. The inter-rater reliability mean score at time 1 (92%) and at time 2 (95%) demonstrated a high level of consistency between raters. The tool had been used successfully to measure sexual knowledge in non-offending populations (Galea, Butler, Iacono & Leighton, 2004). But had not been used particularly for research with individuals who sexually offend (with a literature search returning just one study).

Given the target population of the measure the knowledge test was supported by a numbered picture book containing black and white drawings to provide contextual information and to assist understanding, some of these were sexually explicit. While it is recognised that for individuals with IDD ambiguity in pictorial depictions needs to be avoided at all costs, it was of concern that for some individuals such images might also trigger a trauma response. As mentioned previously it is well documented that individuals with IDD are more likely to have been a victim of sexual abuse than their non-disabled peers (Jones et al., 2012; Spencer et al., 2005). Although the authors of the ASK do provide a warning to this effect.

Given the ASK demonstrated some good psychometric properties and had been developed on individuals with IDD, following the critique the decision was taken to adapt the Knowledge Test component of the ASK for adolescents with IDD. It was hoped the adapted tool could also be used to address the unanswered question

from the systematic review, as to whether there were differences in sexual knowledge between adolescents with or without IDD who display harmful sexual behaviour.

Chapters five and six presented the empirical research, which aimed to: A) address the paucity of reliable and valid sexual knowledge assessment tools developed for use with adolescents with IDD and harmful sexual behaviour; and, B) to explore whether level of sexual knowledge was related to harmful sexual behaviour in adolescents with IDD (Counterfeit Deviance Hypothesis).

Chapter Five, detailed the adaptation of the Knowledge Test of the ASK (Butler, Leighton & Galea, 2003) and the testing undertaken to establish if the tool could accurately measure sexual knowledge in adolescent males aged 12-17 with and without intellectual developmental disorders (IDD) and their counterparts who display harmful sexual behaviour (HSB) (see Chapter Six). The adapted questionnaire was examined with regards to its content validity, internal consistency/split-half reliability and stability over time.

Statistical analysis revealed content validity for the individual items (I-CVI) was established for 74 out of 76 items (range .50 to .80), with most items receiving a rating of .80 or above. Content validity (S-CVI/Ave) was established for all sections on the measure (range .87 to 1.00) with most items receiving a rating of .90 or above. The internal consistency of the measure ranged from

questionable (.60) to excellent (.94), and the split-half reliability ranged from good (.70) to excellent (.94). Test re-test data suggested the measure demonstrated good (.87, $p=002$) to excellent (.99, $p=.000$) stability over time. The findings from this initial study suggest the psychometric properties of the adapted questionnaire are promising.

However, a further review of the data indicated participants in the two No IDD groups aged 15 years and above had scored very highly with little variance in scores on the Puberty, Relationships and Socio-sexual boundaries sections, resulting in a ceiling effect for approximately 37% of the overall sample. This observed result suggested that the ASKA may not be reliable for use with older adolescents without IDD.

It was noted that if certain items were deleted small improvements could be made to the alpha coefficients for items within several sections of the ASKA. As the gains were very small, and to preserve the clinical utility of these items, it was considered more beneficial to leave the items in the questionnaire. A significant limitation of the study was testing the tools concurrent validity. This was difficult as there were no other tools available that had been developed on adolescents with IDD, and were comprehensive enough, not outdated, or that provided adequate information as to its reliability and validity.

Using the adapted questionnaire (The Assessment of Sexual Knowledge in Adolescents -ASKA) the aim of Chapter Six was to explore whether there were differences in sexual knowledge in adolescents with and without IDD and their counterparts who displayed harmful sexual behaviour. The aims were:

Aim 1: To explore whether there are differences in sexual knowledge in adolescents with and without IDD and their counterparts who display harmful sexual behaviour (HSB).

Aim 2: To explore whether the history of sexual victimisation is higher in the IDD group compared to No IDD group in those that commit HSB.

Aim 3: To explore whether there is a link between HSB and viewing sexually explicit material (i.e. pornography) in adolescents with and without IDD.

A total of 140 adolescent males split across four groups. (A) No HSB IDD (n=29); (B) HSB IDD (n=27); (C) No HSB No IDD (n=41); (D) HSB No IDD (n=43).

Data was also collected on the incidence of sexual victimisation for those adolescents in the HSB groups. In the empirical study, a number of comparisons across groups were made for level of sexual

knowledge, incidence of sexual victimisation and viewing of sexually explicit material.

1. Total Sexual Knowledge score was compared between older adolescents (aged 16 – 17 yrs.) and younger adolescents (aged 12-15 yrs.) using the age of consent as a dividing line. Older adolescents were found to have significantly higher sexual knowledge scores than younger adolescents in both No IDD groups (Groups C & D). However, a significant difference in knowledge was not observed for either of the IDD groups (Groups A & B). However, the IDD groups combined showed a trend for the older adolescents (16-17 yrs.) score to be higher than that of the younger (12-15 yrs.) adolescents.

2. Sexual knowledge was compared between IDD and No IDD groups for those adolescents who did not commit harmful sexual behaviour. Group A (No HSB and IDD) showed significantly less sexual knowledge than group C (No HSB No IDD). Therefore, adolescents with IDD were found to have lower levels of sexual knowledge than adolescents without IDD in those with no history of harmful sexual behaviour.

3. Sexual knowledge was compared between IDD and No IDD groups for those adolescents who had been identified and referred to specialist services for harmful sexual behaviour. Group B (HSB and IDD) showed less sexual knowledge than group D (HSB and No

IDD). Therefore, adolescents with IDD were found to have lower levels of sexual knowledge than adolescents without IDD in those with a history of harmful sexual behaviour.

4. Sexual knowledge was compared between those adolescents who commit HSB and those that do not in the absence of IDD.

Group C (No HSB and No IDD) showed no significant difference in sexual knowledge compared to group D (HSB and No IDD). Thus, for adolescents without IDD sexual knowledge is neither a risk factor or a protective factor.

5. Sexual knowledge was compared between those adolescents with IDD who commit HSB and those who do not. Group A (No HSB and IDD) showed less sexual knowledge than group B (HSB and IDD). Therefore, the Counterfeit Deviance Hypothesis was not supported. This suggests sexual knowledge may be a risk factor and not a protective factor for adolescents with IDD, or that there may be another mediating factor. For example, the arousing nature of watching sexually explicit material and lacking coping skills or healthy sexual outlets may coincide with an interest in obtaining accurate sexual knowledge.

6. A significant association was observed between incidence of sexual victimisation and those who commit HSB (Groups B & D). Adolescents with HSB and IDD (Group B) were found to be

significantly more likely to have been a victim of HSB than adolescents with HSB No IDD (Group D).

7. A significant association between viewing sexually explicit material and HSB was observed in both the IDD and No IDD groups. The strength of this association was found to be much greater for those adolescents with HSB and IDD (Group B). Suggesting that viewing sexually explicit material may be linked with HSB and may have a greater impact on adolescents with IDD.

The empirical research highlighted that although the adolescents with IDD consistently demonstrated lower sexual knowledge than their counterparts without IDD, the HSB IDD group demonstrated higher sexual knowledge and had viewed sexually explicit material at a higher rate than their No HSB IDD counterparts. Adolescents in the HSB IDD group were also found to experience higher rates of sexual victimisation than typically functioning adolescents with HSB. These findings might suggest that a lack of sexual knowledge may not be a contributory factor in why some young people with IDD go on to display harmful sexual behaviour and may go some way to question the lack of sexual knowledge component of the Counterfeit Deviance Hypothesis in this population. If there is a deficit related to sexual knowledge, it may be more specific, i.e. related to social-sexual boundaries and further research could explore more about the mechanisms of this and how it could be better assessed.

In the No IDD groups, ceiling effects were observed for five out of nine sections (e.g. the Parts of the Body, Public and Private Parts and Places, Puberty, Social Sexual Boundaries and Relationships). This was primarily due to the relatively little variance in the high scores achieved for the adolescents aged 15 and above within these groups. This suggested that for these individual's sexual knowledge measured by the ASKA could no longer discriminate between participants aged 15 to 17 in these two groups. It is probable that for these young people sexual knowledge as measured by the ASKA had already been learned by the age of 15. Therefore, using the ASKA tool to identify treatment needs in adolescents above the age of 15 without IDD may prove unfruitful.

The questionnaire is fairly easy to administer and can be used by clinicians to assess sexual knowledge in adolescents with IDD with a view to intervention. The questionnaire may also be used as a pre – post-treatment measure to evaluate the effectiveness of sex and relationship education interventions with this population. However, ceiling effects were observed across some sections of the ASKA for adolescents in the No IDD groups aged 15 years and above. Further scrutiny of the data suggested that for these adolescents those areas of sexual knowledge measured by the ASKA may have already been learned, and therefore using the ASKA questionnaire with this population may prove less fruitful.

However, positively this study highlighted the usefulness of the ASKA questionnaire, as a clinical tool when assessing sexual knowledge in adolescents aged 12 to 17 yrs. with IDD, who may or may not have engaged in HSB. The ASKA was fairly easy to administer and results obtained in both empirical studies suggest that it is a reliable and stable over time. This suggests that the ASKA can be used by clinicians to accurately measure sexual knowledge related to risk of harmful sexual behaviour in adolescents (aged 12-17 years) with IDD, with a view to intervention. Given its stability over time the questionnaire can potentially be used at both the pre-and post-treatment stage to accurately evaluate the effectiveness of sex and relationship education interventions with this population.

To further strengthen the accuracy of the ASKA, it is recommended that further research is undertaken to explore its use with females and more culturally diverse IDD adolescent populations, across different settings (e.g. specialist secure forensic settings for adolescents with IDD). The ASKA may prove useful in identifying where sex education interventions may or may not be addressing the needs of this population with a view to improving programme effectiveness. As highlighted in the literature, inadequate or inaccurate sexual knowledge has often been identified as being a problem area for sexual offenders (Woodward, 1980; Cumming & Buell, 1997), leading to misconceptions regarding appropriate sexual behaviour, or a distorted understanding of human sexuality

(Abel, Becker & Cunningham-Rathner, 1984; Able, Gore, Holland, Camp, Becker & Rathner, 1989). Providing sex education that is accessible, has meaning and meets the sex and relationships educational needs of individuals with IDD, can help these individuals make the transition from deviant to healthy sexual behaviour (Cumming & Buell, 1997).

Conclusion

This thesis aimed to inform the relatively limited evidence base, exploring risk factors, assessment and treatment for adolescents with IDD who have displayed harmful sexual behaviour.

This thesis has offered little support to the counterfeit deviance hypothesis for young offenders. The systematic review and the empirical study in Chapter 6 highlighted that individuals with IDD that sexually offend were more likely to have a reported history of being a victim of sexual abuse. However, whether this had been a modelling factor in their own sexually harmful behaviour was not able to be answered within the scope of the current study. Further support was found in the systematic review where individuals with IDD who sexually harm were found to have less social skills and more social problems within the clinical range compared to sexual offenders without IDD. This was supported by the Case study as Client D's assessment suggested he lacked appropriate understanding of socio-sexual boundaries and the rules and social norms of society. His restrictive living environment since age 13

and lack of appropriate education may have resulted in poor social skills resulting in overt and often aggressive sexualised behaviours when attempting to court others. His difficulties understanding, trusting, relating and feeling connected to others in social situations may have further limited his ability to establish appropriate relationships with others. However, the current thesis offered little support the Counterfeit Deviance Hypothesis that limited sexual knowledge may be a factor as to why some individuals with IDD may go on to sexually harm.

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Appendix 1: Search Strategy

The following search strategy was applied to PsycINFO and modified to meet the specific requirements of each of the remaining databases/search engines.

1. exp Sex Offense*/
2. exp Rape/
3. exp Sexual Abuse/
4. exp Paraphilias/
5. exp incest/
6. exp Pedophilia/
7. exp Child Abuse/
8. rape.mp.
9. paraphil*.mp.
10. (pedophil* or paedophil*).mp.
11. child molest*.mp.
12. deviant sexual behav*.mp.
13. sexual* devian* behav*.mp.
14. sexual* devian*.mp.
15. harmful sexual behav*.mp.
16. sexual* harm* behav*.mp.
17. sexual* inappropriate behav*.mp.
18. inappropriate sexual* behav*.mp.
19. sexual* problem* behav*.mp.
20. problem* sex* behav*.mp.
21. rapist.mp.
22. sex* abus*.mp.
23. sex* offen*.mp.
24. or/1-23
25. exp Learning Disabilities/
26. exp Learning Disorder/
27. exp Developmental Disabilities/
28. exp Intellectual Development Disorder/
29. exp Cognitive Impairment/
30. exp Special Needs/
31. exp intelligence Quotient/
32. exp Cognitive Ability/
33. learning disord*.mp.
34. learning disab*.mp.
35. developmental* disab*.mp.
36. intellectual* disab*.mp.
37. intellectual development Disorder.mp.
38. intellectual* disord*.mp.
39. intellectual* impair*.mp.
40. cognitive* impair*.mp.
41. mental* retard*.mp.
42. mental* handicap*.mp.

43. IQ.mp.
44. intelligence quotient.mp.
45. special needs.mp.
46. or/25-45
47. exp Risk Factors/
48. risk*.mp.
49. exp Prediction/
50. predict*.mp.
51. exp Client Characteristic/
52. Characteristic*.mp.
53. or/47-52
54. 24 and 46 and 53

Appendix 2: Inclusion/Exclusion Form

Reference:

Inclusion criteria	Met?	Comments
Publication date: Was the study published after December 1979?	Yes/No	
Study Type: Is the study an RCT, Case Control or Cohort?	Yes/No	
Population Males aged 8 years (age of criminal responsibility in Scotland) and above,	Yes/No	
Exposure; Either convicted of a sexual offence or with a history of sexually offensive behaviour, identified as having IDD (participants with a learning disability defined as IQ <70, which may also include participants with borderline learning disability, IQ between 71 and 80).		
Comparator Control group(s) either (a) sexual offenders without IDD or (b) non-sexual offenders with IDD or (c) male non-offenders with IDD.	Yes/No	
Outcome Results on identified or assessed risk factors across groups?	Yes/No	
No Exclusion Criteria Met E.g. Studies looking solely at female offenders (FOs), studies including FOs who do not have data for male SOs reported separately. Cross sectional studies, pre/post studies, case studies, narrative reviews, opinion papers, editorials and commentaries.	Yes/No	

Appendix 3: Case Control - Quality Assessment Sheet

First author, date, country:

Study Title:

Source:

Screening Questions	Y	P	N	U	Comment
Was the research question/ aims clearly defined?					
Is the study addressing risk factors in sex offenders with IDD?					

Selection and Sampling Bias	Y	P	N	U	Comment
Were the cases recruited in an acceptable way?					
Were the controls selected in an acceptable way?					
Were the cases and controls representative of a defined population (e.g. not employing self-selecting participants, pre-screened participants or those residing in an area with a narrow variability of SES)?					
Was the definition of IDD made clear and was it appropriate?					
Were cases and controls matched or similar at baseline?					
Is there sound homogeneity/matching of comparison groups?					
Was a sufficient sample size used?					
Risk of selection bias? Low Unclear High					

Measurement and Detection Bias	Y	P	N	U	Comment
Were risk factors objectively measured using the same measurement tool across cases and controls?					
Did the same assessor conduct the assessment method in the same setting?					

Was the assessment method standardised on an IDD population?					
If not was there evidence to suggest the assessment method was suitable for use on IDD populations (e.g. adaptations to items and/or the way it was administered?)					
Was their evidence to suggest the assessment method was valid and reliable?					
Was the assessment of risk factor(s) carried out by a suitably qualified/trained person?					
Was the researcher blind to the participant group when assessing/scoring the measures of risk factors?					
Risk of measurement bias? Low Unclear High					

Attrition Bias	Y	P	N	U	Comment
Were the characteristics of dropouts similar to those who remained in the study?					
Is the attrition rate acceptable e.g. <20%?					
Was the dropout rate between cases and controls similar?					
Risk of attrition bias? Low Unclear High					

Statistical Bias	Y	P	N	U	Comment
Were the statistical tests used appropriate?					
Was the amount of missing data acceptable (i.e. Less than 10%)?					
Was missing data handled appropriately?					
Did the authors consider the impact of confounding variables and accounted for these in the design/analysis?					
Risk of statistical bias? Low Unclear High					

Results	Y	P	N	U	Comment
Can the results be generalised to other populations?					
Do the results of the study fit with other available evidence?					

Scoring

Yes = 2
 Partially = 1
 No = 0
 Unclear = 0

Risk of selection bias? _____

Risk of measurement bias? _____

Risk of attrition bias? _____

Risk of statistical bias? _____

Results _____

Final Score

No. of Unclear

Number of participants

Appendix 4: Data Extraction Sheet

Date of data extraction:

Author(s)

Title:

Source (e.g. journal, conference) year/vol/pages/country of origin:

Specific Information

Re-verification of study eligibility (✓):

- | | | | |
|------------------------------|--------------------------|------------------------------|--------------------------|
| Males | <input type="checkbox"/> | Appropriate comparison group | <input type="checkbox"/> |
| Sexual offenders with IDD | <input type="checkbox"/> | Assessment of risk factor(s) | <input type="checkbox"/> |
| Cohort or case control study | <input type="checkbox"/> | No exclusion criteria met | <input type="checkbox"/> |

Population Characteristics

	Experimental Group	Comparison Group 1	Comparison Group 2	Comparison Group 3
Description	Sexual offenders with IDD			
Recruitment Details (date, location, setting)				
Details of recruitment procedure (e.g. how were participants selected/approached)				
Total sample and No. of participants in each group (and if applicable, completed)				
No. of participants who declined/dropped out (and reasons)				
Details of decliners/dropped outs (e.g. reasons, group differences)				
Mean age (SD)				

Mean IQ (SD)				
Ethnicity				
Geographical Region				
Family SES				
Other baseline characteristics (list): E.g. offence history				

Definition of IDD

How was the IDD assessed?	
Was a validated assessment tool used?	
Who conducted the measurement/assessment?	
Were they trained in that assessment?	

Assessment of Risk Factor(s)

What risk factor(s) were measured/assessed/identified?	
How were these measured/assessed/identified?	
Were there any adaptations/changes to the way risk factors were measured/assessed/identified between groups?	
Who conducted the measurement/assessment?	
Were they trained in that assessment?	
Was a validated/reliable assessment tool used?	
Was the assessment method standardised on an IDD population?	
If not was there evidence to suggest the assessment method was suitable for IDD populations	

(e.g. adaptations to items and/or the way it was administered?)	
Other relevant information:	

Statistical Analysis

What statistical tests were used?	
Were confounding variables adjusted for?	
How were they adjusted for?	
How was missing data dealt with?	

Summary Notes

	Experimental Group	Comparison Group 1	Comparison Group 2	Comparison Group 3
Risk Factor Results, E.g. group mean score				
Summary of outcome (report p value)				

Appendix 5: List of Excluded Studies

No.	Study	Reason for exclusion
1	Ahluvalia, T. (1997)	No IDD population
2	Almond, L. and S. Giles (2008)	Both groups studied contained females, data for males and females was not reported separately
3	Anthony-Cameron, D.M. (1996)	Unpublished dissertation inaccessible
4	Arkowitz, S. and J. Vess (2003)	No IDD Population
5	Asscher, J. J., et al. (2012)	Mixed offences in both groups
6	Baker, M. and T. White (2002)	No comparison group
7	Ball, T. D. (2010)	No comparison group
8	Barbaree, H. E. and W. L. Marshall (1988)	No specific IDD group identified/no comparison between groups.
9	Barron, P., et al. (2004)	Includes females and other types of offending
10	Becerra-Garcia, J. A. and V. Egan (2014)	No specific IDD group identified
11	Bedlington, M. M., et al. (1988)	No IDD population
12	Beech, A. R. (1998)	No IDD population
13	Blacker, J., et al. (2011)	No reporting of differences between groups
14	Blanchard, R., et al. (2007)	No comparison of with IDD/without IDD group data
15	Chu, C. M. and S. D. Thomas (2010)	No IDD population
16	Cohen, L. J., et al. (2002)	No IDD population
17	D'Arecca, T. L. (2004)	No IDD population
18	Day, K. (1994)	No comparison group
19	Erulkar, A. S. (2004)	No IDD population
20	Fanniff, A. M. and E. R. Kimonis (2014)	No IDD population
21	Fitzgerald, S., et al. (2013)	No sexual offenders with IDD
22	Ford, H. J., et al. (2009)	No comparison group
23	Glaser, W. and K. Deane (1999)	Comparison group contained some sexual offenders
24	Gray, N. S., et al. (2007)	Mixed offences, both groups studied contained females, data for males and females was not reported separately
25	Green, G. A. (2001)	No comparison group
26	Groth, A. N. and C. M. Loreda (1981)	No specific IDD group identified/no comparison between groups.
27	Hogue, T., et al. (2006)	Mixed offences

28	James, L. C. (1988)	No specific IDD group identified
29	Jung, S. and B. A. Dowker (2016)	No specific IDD group identified
30	Kamphuis, J. H., et al. (2005)	No specific IDD group identified
31	Keeling et al. (2006)	No specific dynamic or static risk factors identified
32	Langevin, R. and S. Curnoe (2008)	No specific IDD group identified
33	Langevin, R. and S. Curnoe (2011)	No specific IDD group identified
34	Langevin, R., et al. (2006)	No specific IDD group identified
35	Lindsay, W. R., et al. (2012)	Comparison group contained females, data for males and females was not reported separately
36	Lindsay, W. R., Hogue, T.E., Taylor, J.E., Mooney, P. et al. (2006)	Groups contained mixed offences
37	Lindsay, W. R., Hogue, T.E. et al. (2008)	No review defined comparison group
38	Lindsay, W. R., Michie, E. et al. (2006)	No review defined comparison group
39	Lindsay, W. R., et al. (2004)	Comparison group contained some sexual offenders
40	Lindsay, W. R., Steele, E. et al. (2006)	Comparison group contained some sexual offenders
41	Lindsay, W. R., Steptoe, L. et al. (2008)	No review defined comparison group
42	Lofthouse, R. E., et al. (2013)	No comparison group
43	Malesky, L. A. (2003)	No IDD population
44	Manocha, K. F. and G. Mezey (1998)	No specific IDD group identified/no comparison between groups.
45	Miccio-Fonseca, L. and L. A. Rasmussen (2015)	No specific IDD group identified some participants less than 9 years old.
46	Mihailides, S., et al. (2004)	No IDD population
47	Minor, K. I., et al. (2008)	No IDD population
48	Murphy, W. D., et al. (1985)	No Sex offender population, no specific IDD population
49	Murrey et al. (1992)	No review defined comparison group
50	Nijman, H., et al. (2009)	Mixed offences and no specific IDD population
51	Parsons, E. P. (2009)	No comparison group
52	Plattner, B., et al. (2016)	Mixed offences and no specific IDD population

53	Put, C. E., et al. (2014)	Mixed offences and both groups studied contained females, data for males and females was not reported separately
54	Quinsey, V. L., et al. (2004)	Mixed offences
55	Rose, J., et al. (2008)	Females
56	Rucklidge, J. J., et al. (2013)	Mixed offences, no specific IDD population, gender of ppts not clear
57	Salat, M. (2009)	No specific IDD population
58	Schneider, S. L. and R. C. Wright (2004)	No IDD population
59	Seck, M. M., et al. (2010)	Mixed offences, no review defined comparison group.
60	Smallbone, S. W. and R. K. Wortley (2004)	No IDD population
61	Smith, M. and P. Willner (2004)	No review defined comparison group.
62	Steptoe, L. R., et al. (2008)	Mixed offences
63	Sudo, J., et al. (2006)	No review defined comparison group.
64	Talbot, T. J. and P. E. Langdon (2006)	Females in comparison group
65	van der Put, C. E., Asscher, J.J. et al. (2014)	Mixed offences and both groups studied contained females, data for males and females was not reported separately
66	van der Put, C., Asscher, J.J., Wissink, I. et al. (2014)	Mixed offences and both groups studied contained females, data for males and females was not reported separately
67	van Vugt et al. (2011)	No specific dynamic or static risk factors identified
68	Wheeler, J. R., et al. (2014)	Mixed offences and both groups studied contained females, data for males and females was not reported separately
69	Williams, J. D. (2007)	No comparison group
70	Yamada, M. (2010)	Unpublished Dissertation inaccessible
71	Zabel, R. H. and F. A. Nigro (1999)	Mixed offences and both groups studied contained females, data for males and females was not reported separately

Appendix 6: Results from Quality Assessment

	Were cases recruited in an acceptable way?	Were controls selected in an acceptable way?	Cases and controls representative of defined population	Definition of IDD clear and appropriate	Cases and controls matched or similar at baseline?	Sound homogeneity/ matching of comparison groups?	Sufficient sample size used?	Risk factors objectively measured using same tool across groups?	Same assessor/method /setting?	Assessment method Standardised on an IDD population?	If not, method suitable for IDD population	Assessment Method reliable and valid?	Assessment conducted by trained person?	Researcher blind when scoring/assessing risk factors?	Dropouts similar?	Attrition Rate < 20%?	Drop out –non-dropouts similar?	Appropriate statistical tests?	<10% missing data	Missing data handled appropriately?	Confounding variables considered?	Results can be generalised?	Results fit with the evidence base	Total quality score out of 46
Broxholme & Lindsay (2003)	Y	Y	Y	P	Y	Y	P	Y	U	Y	N/A	P	U	U	U	U	U	Y	U	U	Y	N	P	24
Rice et al. (2008)	Y	P	Y	P	Y	P	P	P	N	P	N/A	Y	Y	P	U	U	U	Y	U	U	Y	N	Y	25
Nardis (1994)	Y	Y	U	P	Y	P	P	Y	Y	Y	N/A	Y	U	N	U	U	U	Y	U	U	N	N	Y	23
Michie et al. (2006)	Y	Y	Y	P	Y	P	P	Y	U	Y	N/A	P	Y	U	U	U	U	Y	N	Y	Y	N	Y	28
Parry & Lindsay (2003)	U	U	U	P	U	N	P	Y	P	N	Y	P	Y	U	U	U	U	Y	U	U	N	N	Y	14
Van den Bogaard et al. (2013)	Y	Y	Y	Y	P	N	P	Y	U	P	N/A	Y	Y	N	N/A	N/A	N/A	Y	U	U	Y	P	Y	32
Chung (2002)	Y	Y	Y	P	N	N	N	Y	Y	N	P	P	Y	U	U	U	U	Y	U	U	P	N	Y	20
Hayes (2009)	Y	Y	P	Y	Y	P	P	Y	U	U	U	U	Y	U	U	U	U	Y	U	U	P	N	P	19
Gillis et al. (1998)	U	U	U	P	Y	P	N	Y	U	U	Y	P	Y	U	U	U	U	Y	Y	N/A	U	N	P	18
Fortune & Lambie (2004)	Y	Y	P	Y	Y	Y	P	Y	Y	U	N	P	Y	U	N/A	N/A	N/A	Y	U	U	U	P	P	29
Steptoe et al. (2006)	Y	Y	Y	P	Y	Y	P	Y	N	U	P	U	Y	N	U	U	U	Y	N	Y	P	U	N	22
Langdon & Talbot (2006)	Y	Y	P	Y	Y	Y	P	Y	U	P	N/A	Y	U	U	U	U	U	Y	U	U	P	P	P	24
Lindsay et al. (2007)	Y	Y	Y	Y	P	N	P	Y	P	Y	Y	Y	Y	P	U	U	U	Y	U	U	U	N	Y	26
Gilby et al. (1989)	U	U	Y	P	Y	N	N	Y	P	N/A	N/A	U	U	U	N/A	N/A	N/A	Y	U	U	P	N	Y	23

All studies were case control –

Y= Yes, N = No, P = Partially, U = Unclear, N/A = Not Applicable

Appendix 7: Risk of Bias in Different Domains

	Risk of selection bias	Risk of measurement bias	Risk of attrition bias	Risk of statistical bias	Risk of bias in different domains	Number of unclear/unknown
Broxholme & Lindsay (2003)	Low	Unclear	Unclear	Unclear	Measurement, Attrition, Statistical	8
Rice et al. (2008)	Low	Low	Unclear	Unclear	Attrition, Statistical	5
Nardis (1994)	Low	Low	Unclear	Unclear	Attrition, Statistical	7
Michie et al. (2006)	Low	Unclear	Unclear	Low	Measurement, Attrition	5
Parry & Lindsay (2003)	High	Low	Unclear	Unclear	Selection, Attrition, Statistical	10
Van den Bogaard et al. (2013)	Low	Low	Low	Unclear	Statistical	3
Chung (2002)	Unclear	Unclear	Unclear	Unclear	Selection, Attrition Statistical	6
Hayes (2009)	Low	Unclear	Unclear	Unclear	Measurement, Attrition, Statistical	10
Gillis et al. (1998)	Unclear	Unclear	Unclear	Low	Selection, Measurement, Attrition	10
Fortune & Lambie (2004)	Low	Unclear	Low	Unclear	Measurement, Statistical	5
Steptoe et al. (2006)	Low	Unclear	Unclear	Low	Measurement, Statistical	6
Langdon & Talbot (2006)	Low	Unclear	Unclear	Unclear	Measurement, Attrition, Statistical	8
Lindsay et al. (2007)	Low	Low	Unclear	Unclear	Attrition, Statistical	6
Gilby et al. (1989)	Unclear	Unclear	Low	Unclear	Selection, Statistical	7

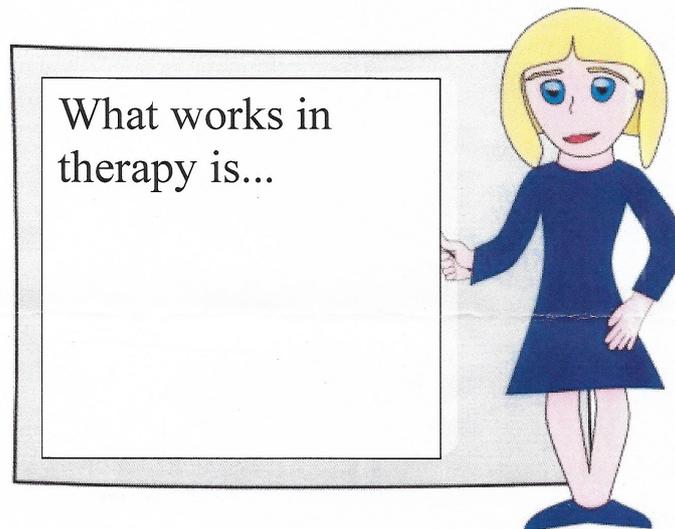
Appendix 8: Case Study Consent/Assent Form



Research Agreement Form

I am doing some research at university to learn about what helps young people in therapy to:

- understand and manage their feelings
- feel positive about themselves
- and have healthy relationships



To do this project I would like your help. I need your agreement to let me write in my project about what I have done with you in your Individual Therapy sessions. This would include:

- what work you have done
- what was useful and what did not work so well
- the answers you gave to any questionnaires or assessments



**PRIVATE &
CONFIDENTIAL**

I would like to share my research with other people who work with young people in therapy, so that they can help young people like you. When I share my research no one will know that the information is from your sessions because **I will not use your name or anything else that might identify you.**

It is your choice whether you agree to me using your information for research to help other young people.

You can say 'yes' or 'no' now.

If you say 'yes' now and change your mind later that's okay - I will not share your information.

I also need agreement from your Social Worker because you are under 18 years old. If they don't agree I won't use your information in this way.

Do you want to ask any questions?





Please sign below if you understand and agree to let me write in my project about what I have done with you in your Individual Therapy sessions and to share this information to help other young people like you.



I, [REDACTED] (Young person) understand the information given.

I give my permission for Sam to write in her project about what she has done with me in my Individual Therapy sessions and for her to share this information (without my name or anything else that might identify me on it) to help other young people like me.

Signed: [REDACTED]

Date: 3/9/14

If you have any questions you can speak to someone in the therapy team [REDACTED] and they will ask me to ring you.

Thank-you for taking the time to read this form ☺

Sam Richards

Appendix 9: Case Study Psychometric Battery

Psycho-social Functioning Measures

The three psychosocial measures were taken from the Adolescent Sexual Abuser Project (A.S.A.P.) test battery (Beckett, Gerhold, Brown & Bailey, 1999).

Personal Reaction Inventory - PRI (Greenwald & Satow, 1970)

This 20-item scale is designed to measure a person's tendency to provide socially desirable answers. This enables practitioners to form a view of how open and honest the respondent is, thus how much credibility can be given to the results of the psychological functioning measures. The standard scores (mean = 50, SD = 10) are based on 128 non-offending British adolescent males. The alpha coefficient is reported to be .82.

Interpersonal Reaction Inventory – IRI – (Adapted from Davis, 1980)

This is a 28-item questionnaire, which measures four dimensions of empathy using four subscales: Perspective Taking (alpha = .79), Empathic Concern (alpha = .80), Fantasy (alpha = .82) and Personal Distress (alpha = .75). Davis (1983) reports that the internal reliability for the four sub-sales range from .71 to .77 and the test re-test reliabilities from .62 to .71. The standard scores (mean = 50, SD = 10) are based on 92 non-offending British adolescent males. High scores reflect a greater degree of these characteristics.

Children's Assertive Behaviour Scale – CABS (Michelson & Wood, 1982)

This questionnaire measures the respondent's ability to assert himself appropriately in a variety of social situations. The questionnaire asks the subject what they will do in each of 27 given situations (intention) and has been found to demonstrate good internal consistency (.78 - .80) and test-retest reliability (.66 - .86) (Michelson & Wood, 1982; Wojnilower & Gross, 1985). The standard scores (mean = 50, SD = 10) are based on 120 male adolescent sexual abuser's post-treatment. High scores reflect high levels of assertiveness.

Attitudes and Beliefs related to Harmful Sexual Behaviour

The two scales below were taken from the Adolescent Sexual Abuser Project (A.S.A.P.) test battery (Beckett, Gerhold, Brown & Bailey, 1999).

The Multiphasic Sex Inventory Juvenile Male Form– MSI J (Nichols & Molinder, 1984).

This questionnaire is designed to assess the psychosexual characteristics of sexual offenders. It is divided into a number of scales and checklists. Internal consistency of the MSI subscales have been found to be adequate (.58 to .92; Milner, Murphy, Valle, Tolliver, 1998) and it has adequate temporal stability, with most subscales having three-month test-retest reliabilities falling between .8 and .9 (Milner et al., 1998).

Social Sexual Desirability subscale: is a 35 items scale which assesses degree of openness about sexual matters; alpha .77. Standard scores are based on 57 adolescent non-sexual delinquent males. A high score on the SSD scale indicates openness regarding sexual interests rather than socially desirable responding or denial.

Sexual Knowledge and Beliefs subscale: consists of 24 statements in relation to sexual knowledge and beliefs; alpha .59. The standard scores for the Sexual Matters questionnaire (Mean = 50, SD, =10) are based on score obtained by 57 non-sexual delinquent British adolescent males.

On both subscales, the respondent indicates whether a statement is either 'true' or 'false'. Correct answers are scored 1, and incorrect answers scored 0. The scores on each of the items are added together to obtain the total SKB and SSD scale scores. A high score on the SKB scale indicates accurate sexual knowledge and positive beliefs.

Descriptions of Adapted Offence Related Measures

The following three measures were developed for adolescents with IDD and are currently being piloted by the Learning Disability Working Group. They are therefore un-validated at the current time.

Attitudes Towards Sexual Behaviour with Children – ASB-Children (LD Working Group, 2012)

The ASB-Children questionnaire consists of 26 items, which explore attitudes of a young person towards sexual behaviour with children. It also assesses attitudes towards the effects of sexual behaviour on child

victims, the consequences of sexual behaviour with children and attitudes towards children and their sexuality. Participants respond with either a 'Yes', 'No' or 'Don't know'. Consistent with the original scoring of the QACSO, a score of 0 is given to a socialised response and a score of 1 is given to a response, which reflects an attitude supportive of sexual offending. 'Don't know' responses are not scored because their meaning may be different across participants. Higher scores on this measure denote higher levels of cognitive distortions. A possible score of 26 can be obtained from this questionnaire.

Attitudes Towards Indecent Exposure – AI-Exposure (LD Working Group, 2012)

The AI-Exposure questionnaire consists of 25 items, which assess a young person's attitudes towards sexual exposure behaviour, including the impact upon the victim and potential consequences for the behaviour. Participants respond with either a 'Yes', 'No' or 'Don't know'. Consistent with the original QACSO and the ASB-Children questionnaire, a score of 0 is given to a socialised response and a score of 1 is given to a response, which reflects an attitude supportive of sexual offending. For the same reasons as above, 'Don't know' responses are not scored. A possible score of 25 can be obtained from this questionnaire and higher scores on this measure denote higher levels of cognitive distortions.

Peer Assault (LD, Working Group, 2012)

The Peer Assault questionnaire consists of 34 items, which assess a young person's attitudes towards sexual behaviour towards peers, including the impact upon the victim. Participants respond according to a four-point Likert scale (from 'yes very much' to 'no not at all').

Socialised responses receive lower scores (i.e. 0 or 1) whereas un-socialised responses or attitudes supportive of sexual offending receive higher scores (i.e. 2 or 3). Consistent with the questionnaires above, 'Don't know' responses are not scored. A possible score of 102 can be obtained from this questionnaire and higher scores on this measure denote higher levels of cognitive distortions.

Sexual Knowledge Measure

The Assessment of Sexual Knowledge - ASK – (Butler, Leighton & Galea, 2003) - The Knowledge Test

The Assessment of Sexual Knowledge (ASK) questionnaire (Butler Leighton & Galea, 2003) was designed for use with people with mild to moderate learning disabilities (IQ 50-70). The Knowledge Test component comprises of 124 items and some pictorial representations which are split over 15 sections as follows; (1) Parts of the Body, (2) Public and Private, (3) Puberty, (4) Menstruation, (5) Menopause, (6) Masturbation, (7) Relationships, (8) Protective Behaviours, (9) Sexuality, (10) Safer Sex Practices, (11) Contraception, (12) Pregnancy & Birth, (13) Sexual Health -Screening Tests, (14) Sexually Transmitted Infections, and (15) Legal Issues Regarding Sexuality. Items are scored 0 for incorrect, 1 for partially correct (where applicable) and 2 for

correct. Some items require more than one response in order to receive a score of 2. Each of these items is accompanied by a specific prompt such as "Anything Else?" to elicit further responses. The maximum score for measure is 248. Overall face validity for quality, ease of administration, breadth, vocabulary, accuracy of responses ranged from good to excellent. Test re-test agreement ranged from 60%-100% (M= 83%) across all 124 items. Tests of Inter-rater reliability demonstrated that percentage agreement ranged from 67% to 100% across items at time 1, and from 82% to 100% at time 2. The inter-rater reliability mean score at time 1 (92%) and at time 2 (95%) demonstrated a high level of consistency between rater's.

Mental Health Measures

The Trauma Centered Checklist for Children – TSCC (Briere, 1996)

The TSCC is a self-report measure of post-traumatic distress and related psychological symptomatology in children and adolescents (ages 8 to 16, with normative adjustments for 17-year-olds), including the effects of child abuse (sexual, physical, and psychological) and neglect, other interpersonal violence, witnessing trauma to others, major accidents, and disasters. The TSCC is a 54-item self-report instrument consisting of two validity scales; Under-response (UND) and Hyper-response (HYP); and six clinical scales; Anxiety (ANX), Depression (DEP), Posttraumatic Stress (PTS), Sexual Concerns (SC), Dissociation (DIS), and Anger (ANG). Two of these scales have subscales, Sexual Concerns contains Sexual Preoccupation [SC-P] and

Sexual Distress [SC-D]; Dissociation contains Fantasy [D-F] and Overt Dissociation [D-OD]. The items of the TSCC are explicitly written at a level thought to be understood by children eight years of age or older. Each symptom item is rated according to its frequency of occurrence using a four-point scale ranging from 0 ("never") to 3 ("almost all of the time"). The TSCC requires approximately 10-20 minutes to complete.

The measure has demonstrated good construct, predictive, convergent and discriminant validity. Reliability analysis of the TSCC scales in the normative sample (3008 children drawn from 3 non-clinical samples) demonstrated high internal consistency for five of the six clinical scales (range .82 to .89). The Sexual Concerns scale, was moderately reliable (.77). The four clinical subscales varied in reliability with DIS-O and SC-P having relatively high internal consistency (.81) and the shorter DIS-F and SC-D scales less reliable (.58 and .64 respectively). The two validity scales UND and HYP had coefficients of .85 and .66 respectively.

The Resiliency Scales for Children (Prince & Embury, 2005)

These scales have been developed for use with children and adolescents aged from 9 to 18 years. They are designed to assess multiple aspects of healthy development that provide the basis of resiliency in dealing with single aversive events as well as cumulative negative stressors. The scales focus on strengths as well as symptoms

and vulnerabilities and are composed of three stand-alone global scales and ten subscales as follows:

- Sense of Mastery global scale (20-items – 3 subscales), self-efficacy, optimism, and adaptability.
- Sense of Relatedness Scale (24 items – 3 subscales), trust, support and tolerance
- Emotional Reactivity Scale: (20 items -3 subscales), sensitivity, recovery and impairment.

Screening is done through the personal a resiliency profile. Results are quantified using the Resource and Vulnerability indices. Scores are normed by gender within three age bands (9-11), (12-14), and (15-18). Item responses are in Likert format and are written at a third-grade reading level. A Resource Index combines the two strength-based scales into one score. The Vulnerability Index expresses the discrepancy between the youth's Emotional Reactivity Scale and Resource Index scores. Internal consistency was good to excellent for all three global scales across three age bands; Sense of Mastery Scale alpha coefficients were .85, .89, and .90; Sense of Relatedness Scale alpha coefficients were .89, .91, and .90; Emotional Reactivity Scale alpha coefficients were .95, .95, and .94. Internal consistency for both index scores was excellent. Composite reliability estimates were .93, .94, and .97 for both. The three global scales are made up of 10 subscales that constitute aspects of the major constructs. These subscales are as follows (with alpha coefficients given in parentheses): optimism (.69, .78, .89), self-efficacy (.77, .83, .91), adapt- ability

(.56, .61, .82), trust (.78, .83, .90), support (.76, .73, .85), comfort (.71, .81, .88), tolerance (.68, .75, .87), sensitivity (.75, .80, .86), recovery (.83, .81, .87), and impairment (.88, .88, .92) (Prince-Embury, 2010, pg. 295).

Achenbach System of Empirically Based Assessment – ASEBA (Achenbach, 2002)

The ASEBA comprises an integrated set of forms for children (aged 6-18), assessing competencies, adaptive functioning and problems.

Because children's functioning may vary from one context and interaction partner to another, the ASEBA is comprised of a series of paralleled forms that allow comparison of different perspectives on a young person's competencies, behaviours and problems in childhood. The Child Behaviour Checklist (CBCL) is usually completed by a parent or carer, the Teacher Report Form (TRF) by a teacher, and the Youth Self-Report Form (YSR) by the young person. Standardised T-scores are calculated for a number of problem areas. T-Scores over 70 are considered to be in the Clinical Range; T-Scores between 65-70 are in the Borderline Range and T-Scores below 65 are considered to be in the Normal Range.

Cross informant agreement for the combinations of CBCL X YSR, CBCL x TRF, and YSR x TRF ratings, the mean *rs* ranged from .20 for YSR x TRF ratings of the empirically based problem scales, to .54 for the CBCL x YSR competence scales. Internal consistency of the competency scales (n=73) were supported by alpha coefficients of .63 to .79 on the

CBCL, .55 to .75 on the YSR. Alpha was .90 on the TRF total adaptive scale. For the empirically based problem scales alphas ranged from .78 to .97 on the CBCL, .71 to .95 on the YSR, and .72 to .95 on the TRF. For the DSM oriented scales ($n=73$), the alphas ranged from .72 to .91 on the CBCL, .67 to .83 on the YSR and .73 to .94 on the TRF. Test re-test reliability of ASEBA school-age scale score ($n=73$) was supported by mean test-retest r s of .90 for the CBCL competence and empirically based problem scales, as well as for the TRF adaptive and problem scales. For the YSR, the mean r s were .88 for the competence scales and .82 for the empirically based problem scales. Mean r s for the DSM-oriented scales ranged from .79 to .88.

Appendix 10: The ERASOR - Risk Items and Ratings

The Estimate of Risk of Adolescent Sexual Offences Recidivism - ERASOR V 2.0 (Worling & Curwen, 2001)

The ERASOR is an empirically guided checklist aimed at guiding evaluators towards an estimate of the short-term risk (e.g. next 12 months) of a sexual recidivism for young people aged 12-18 years of age. The tool comprises of 25 risk items across 5 categories. It is an empirically informed checklist to assist and guide evaluators to estimate the short-term risk of a sexual recidivism for young people aged 12-18 years.

The ERASOR was designed as a single-scale instrument, and the 25 risk factors across 5 categories: Sexual Interests, Attitudes, and Behaviours, Historical Sexual Assaults, Psychosocial Functioning, Family/Environmental Functioning, and Treatment. Risk factors are coded as either being Present, Possibly/Partially Present, Not Present, or Unknown. The measure contains both static and dynamic risk factors related to risk of sexual offence recidivism. The static factors are fixed and therefore not subject to change e.g. historical factors. Dynamic factors are those risk factors more likely/able to change and fluctuate over relatively short periods of time. These can either increase or decrease. Given the rapid developmental changes during adolescence, the potential change in a number of these risk factors, and the fact that much of the supporting research is based on follow-up

data of less than 3 years, it is essential to note that Client D's level of risk should be re-evaluated after a period of at most 12 months or following significant social, environmental, familial, sexual, affective, physical, or psychological change.

Items were informed from Client D's referral information, incident reports, his case file, his pre-intervention psychometric assessment and other collateral information. ERASOR Interviews were also conducted with his Head Teacher at school and his Key Residential Worker.

ERASOR RISK ASSESSMENT

SEXUAL INTERESTS/ATTITUDES:

In the domain of sexual interests, attitudes, and behaviours, one of the four factors were identified as being present, one as being possibly or partially present and two as not present for Client D at the current time.

Deviant sexual interests:

Client D has not committed any sexual assaults within the past year against children (i.e. an individual under 12 years of age and who is at least 4 years younger than him). He has not committed any sexual assaults that have involved excessive physical violence, threats of death or pain, or use of weapons. During the past six months, Client D has not reported or demonstrated sexual arousal to thoughts or images of children under 12 years of age or to sexual violence. In his recent psychometric assessment Client D answered a questionnaire assessing his attitudes towards sexual behaviour with children. Client D reported

that he found answering this questionnaire distressing and that people who had sex with children are “disgusting”. Based on the above, this factor has been rated as **‘not present’**.

Obsessive sexual interests/ preoccupation with sexual thoughts:

During the past 6 months, there has been an escalation in the number of recorded incidents where Client D has behaved in a sexualised manner and used sexualised language and gestures towards his peers and staff both at home and at school. These incidents have included; exposing his nipples, wanting to compare them to those of some of the male members of staff, asking to measure a male teachers’ penis with a ruler. He has told a male and female teacher to go into the toilet and have sex. He is reported to have said to a male peer at his residence, ‘I’m going to fuck you up the arse!’ then say he was only joking. When this comment was later relayed back to Client D he appeared shocked and asked the staff member what he could do, saying; ‘I can’t stop my feelings, what can I do?’ He later simulated sex against the climbing frame in the park playground and on two more occasions back at the house. Staff have observed that Client D’s sexualised behaviours tend to involve the same male members of the staff team and is often seen alongside expressions of aggression and/or anger towards these individuals. Client D uses sexualised language and gestures to a greater degree during those times when he is experiencing negative mood states. This factor has been rated as **‘present’**.

Attitudes supportive of sexual offending:

Over the last six months, Client D is not known to have endorsed any attitudes supportive of forced sexual interactions with peers or adults. With regards to sexual interactions with children, in his recent psychometric assessment Client D responded 'No' to the questions 'Would a younger child not like doing sexual things with someone your age?' and 'Is it wrong for someone your age to do sexual things with a younger child who is in their family?' This suggests that he may hold some distorted attitudes around children and sex or that due to his significant difficulties with verbal comprehension he may have had difficulty understanding the question. He responded, 'Don't know to; 'Would a child always tell the truth about whether they had done sexual things with someone your age?' This may indicate that he is either ignorant regarding the likely effect of sexual abuse on the victim or that he has a distorted view of the likely effects. In addition, Client D's responses may also indicate that he is a bit confused about intent and may not be clear on who is responsible for abusive behaviour (the perpetrator or the victim). This factor has been rated as '**possibly or partially**' present.

Unwillingness to alter deviant sexual interests/ attitudes:

During his time at the current placement, Client D has engaged in his individual therapy, as well as in his psychometric assessment. He has stated that he knows the sexualised behaviours he engaged in prior to coming to the placement were wrong and that he does not want to

behave that way. Staff observations of Client D would support this view; therefore, this factor has been rated as **'not present'**.

HISTORICAL FACTORS:

In the historical domain, six of the nine high risk factors have been rated as present, one as possibly or partially present and two as not present. This is the only domain in which risk cannot reduce; it can only be compounded should Client D reoffend, or new information come to light.

Ever sexually assaulted 2 or more victims:

At the age of 12 years, whilst travelling on a train, Client D was reported to have rubbed himself, giving himself an erection and then stroked a staff member's bottom. Client D's sister was reported to have told the staff member that Client D had stroked her, her younger sisters and her boyfriend's bottoms. Client D is reported to have rubbed himself inappropriately whilst in a hospital waiting area and repeated this the same day on the train journey home. Client D is also reported to have masturbated in a graveyard and displayed sexualised behaviour with a variety of people, including his younger sister (aged 3 at the time). Whilst visiting the family home, a Teenage Pregnancy Advisor reported that Client D had entered the lounge wearing just a towel around his waist. He stood behind the chair where his mother was sitting and began to rub himself from side to side. His mother ordered him to leave the room and get dressed which he chose to ignore and instead came out from behind the chair waving the towel around. A Police Community Support Officer reported that he overheard the mother's partner saying

that the older boy, thought to mean Client D, was abusing the younger children, however no further details are known as to the nature of the alleged abuse.

At the age of 13 years he is reported to have persistently targeted one male staff member at his previous placement with sexualised behaviour, such as touching his backside, attempting to kiss him and constant touching. Client D is also reported to have said that he would either “fuck the member of staff up the arse”, or that he has been subjected to those activities by the member of staff. Client D has reportedly exposed himself in front of others by lifting his top up and pulling his trousers down. He has attempted to grab a member of staff’s genital area, tried to sit on his lap and taken his top off and asked the staff member to “suck his nipples”. Client D is reported to have offered a female member of staff sex and to have asked her to come into his room at night. Client D is not known to have sexually assaulted anyone since he has been at the current placement. This factor has been rated as **‘present’**.

Ever sexually assaulted the same victim 2 or more times:

In October 2011 Client D’s sister alleged that Client D stroked her, her younger sisters and her boyfriend’s bottoms, however it is not clear if this behaviour happened on more than one occasion. In May 2012 Client D is reported to have persistently targeted one male staff member at his previous placement with sexualised behaviour such as touching his backside, attempting to kiss him and grab him in the genital area, tried

to sit on his lap and taken his top off and asked him to “suck his nipples”. This factor has been rated as **‘present’**.

Prior adult sanctions for sexual assault:

In October 2011 whilst travelling by train to London with his family, Client D was challenged by the FIP worker for rubbing himself, giving himself an erection and in the same day for stroking the FIP worker on the bottom. Also, in October 2011, Client D was seen at the GP with a FIP worker requesting a referral to child and adult mental health services due to Client D’s sexualised behaviour and behaviour in general. Unfortunately, his case was not accepted by the local CAMHS. In December 2012, Client D was challenged by a teenage pregnancy advisor visiting his home. During her visit, Client D had entered the lounge wearing just a towel around his waist, rubbed himself on a chair and then removed his towel exposing himself. In February 2012, a specialist paediatric assessment was suggested for Client D in view of his sexualised behaviour and aggression. In March 2012 Client D’s Local Authority agreed they would issue proceedings in relation to Client D due to the high level of concern around his sexualised behaviour; Client D was subsequently placed into residential care in April 2012. Later that month Client D was made subject to an interim care order. He subsequently went on to present with aggressive and sexualised behaviours and was reprimanded by his carers as a result of his behaviour on a number of occasions, and which eventually resulted in the breakdown of his placement and his referral to the current placement. This factor has been rated as **‘present’**.

Threats of, or use of, violence/weapons during sexual offences:

Client D is not known to have used excessive physical restraint or aggression, or to have used a weapon during the commission of his sexually harmful behaviour. However, Client D has a tendency to verbalise threats and can be very intimidating when he is emotionally aroused. It is at these times that he can also present with sexualised behaviours towards staff and the other young people at the current placement, particularly if they are male. This factor has been rated as **'not present'**.

Ever sexually assaulted a child:

This factor is rated as **'possibly or partially present'** as when Client D was 12 years old he is alleged to have sexually touched his younger sister who was 3 years old at the time.

Ever sexually assaulted a stranger:

This factor is **'not present'** as Client D's sexually harmful behaviour has been towards people known to him.

Indiscriminate choice of victims:

This factor has been rated as **'present.'** Client D's older sister stated that Client D stroked the bottoms of his younger sister, herself and her boyfriend. He is reported to have exposed himself to an elderly couple from his neighbourhood and is reported to have persistently displayed sexualised behaviour towards a male member of staff at his previous placement and to have touched him inappropriately.

Ever sexually assaulted a male victim:

Client D is known to have stroked the bottom of his older sister's boyfriend and to have sexually touched a male member of staff at his previous placement. The sexualised behaviours Client D has displayed since he has been at the current placement have primarily been directed towards males. This factor is rated as '**present**'.

Diverse sexual-assault behaviour:

This factor is rated as '**present**' as Client D is known to have exposed himself to others and to have masturbated publicly at home and at school. He has touched people inappropriately; this includes adults, peers and his sisters. While in the community with staff, Client D has made inappropriate sexual gestures. In his previous placement, he is recorded to have attempted to grab a male member of staff's genital area, tried to sit on his lap and taken his top off and asked the staff member to suck his nipples. In this same placement Client D offered a female staff member sex and asked her to come to his room at night. He has also followed a female staff member to the toilet and tried opening the door from the outside.

PSYCHOSOCIAL FUNCTIONING:

In the domain of psychosocial functioning all six of the high-risk factors were identified as currently being present for Client D.

Antisocial interpersonal orientation:

Over the past 6 months Client D has been known to endorse pro-criminal attitudes and has stated that he wants to be a drug dealer. He has demonstrated a defiance of authority figures by stating that he hates the police and uses derogatory terms to describe them, (e.g. 'Pigs') and has used a number of profanities to describe his social worker. He has demonstrated a constant defiance and verbalised aggression towards authority figures at the current placement during times of emotional arousal and has threatened to have 'the travellers' come to the school to kill his music teacher. When Client D is emotionally dysregulated he often violates rules, has difficulty accepting responsibility for his wrongdoings, can be selfish, self-centred, insensitive and demonstrate disrespect for the rights and feelings of others. However, once calm he will be more compliant and often apologises for his antisocial behaviours. This factor has been rated as '**present**'.

Lack of intimate peer relationships/ social isolation:

Observations of Client D suggest he has not developed any emotionally intimate peer relationships or friendships he could call close, since arriving at the current placement. In his recent psychometric assessment Client D's score on the Sense of Relatedness scale of the Resiliency Scale for Children and Adolescents fell in the low range compared with his peers, indicating that he lacks the feeling of being securely connected to individuals in a social context. This factor has been rated as '**present**'.

Negative peer associations and influences:

This factor has been rated as **'present'** as Client D is currently residing within a specialist residential home for young people who display harmful sexual behaviour and as such, he has, on more than one occasion over the past six months, associated with peers who have engaged in antisocial behaviour. Client D has been observed to join in with others' oppositional behaviours in order to 'fit in' or 'belong' and is considered vulnerable to negative social influences.

Interpersonal aggression:

Client D has a long history of interpersonal aggression and challenging behaviour. In the last six months, there have been a number of incidents both at school and at home involving Client D using offensive and sexualised language and displaying defiant, aggressive and threatening/bullying behaviours. This has included verbally, physically and sexually aggressive behaviours towards other young people and staff. The main triggers appear to be when plans change, when he is not getting his own way, when something is happening that he does not want to do, when he is experiencing difficult emotions, when he is experiencing anxieties regarding his family or when his father has failed to attend visits. Client D recently physically assaulted a male member of the teaching staff by punching him in the back of the head. This attack appears to have been unprovoked. This factor has been rated as **'present'**.

Recent escalation in anger or negative affect:

When Client D is emotionally aroused he finds it difficult to focus his attention and manage himself adaptively. Since September 2013 Client D's levels of anxiety have steadily increased. He has also presented with a persistent low mood and regularly voices opinions of low self-worth. His levels of anger have remained at a constantly high level over this time. This escalation is associated with him missing home, his mother becoming homeless and moving back in with Dad and his younger sister being adopted. Client D has remained reluctant to engage with help to manage his low mood and high levels of anger and remains stuck in his desire to go home. More recently he has been prescribed the selective serotonin reuptake inhibitor (SSRI) Sertraline, which appears to be having a positive effect on his low mood, and the duration and intensity of his aggressive/angry outbursts although it is still early days. This factor has been rated as **'present'**.

Poor self-regulation of affect and behaviour (Impulsivity):

When Client D has something to say it can be difficult to interrupt him as he has to say what he wants to say in one go. Observations suggest that Client D has difficulty delaying gratification and often interrupts others. When calm there are times when Client D is able to follow short, clear instructions although once he has become emotionally aroused he appears oblivious to what is said to him and he will choose to ignore the consequences that are explained. In the last six months, he has engaged in risky behaviour, such as climbing over the railings on a 30ft high bridge above a busy road because another young person dared him too; pulling

a belt tight around his neck, tying a rope around his neck and threatening to kill himself; storming around buildings, verbal aggression, storming out of the house, causing damage to property, and picking up lighters when out in the community. This factor has been rated as **'present'**.

FAMILY/ ENVIRONMENTAL FUNCTIONING:

In the domain of family/environmental functioning one of the four high risk factors risk factors is considered to be present, two as possibly or partially present and one as not present currently for Client D.

High-stress family environment:

During the last six months, there have been considerable stressors within the family. This includes the separation of his younger sister from the family due to her adoption; his mother becoming homeless and along with his two sisters going to live with Client D's father. This has caused some distress to Client D as Client D's Mother has previously suffered severe domestic violence at the hands of Client D's father. This factor has been rated as **'present'**.

Problematic parent-offender relationships/ Parental rejection:

Client D's Mother and Father are reported to be supportive of his current placement and both have attended his LAC (Looked After Child) reviews. Client D's father has, however, failed to turn up for scheduled visits at times. More recently a visit with Client D's father had to be suspended as a result of him arriving intoxicated. These instances have left Client D

feeling let down. This factor has been rated as '**possibly or partially present**'.

Parent(s) not supporting sexual-offence specific treatment:

During the last six months, Client D's parents have presented as supportive of Client D's engagement in assessments and therapy. Neither parent denies that Client D has engaged in sexually harmful behaviour or denies that there is any risk of him re-offending should he not engage in therapeutic work. Client D's mum has reported to staff that she would like to see Client D remain at the current placement to undertake work to address his sexually harmful behaviour. This factor has been rated as '**not present**'.

Environment supporting opportunities to reoffend sexually:

Client D has taken himself off staff supervision for short periods of time since he has arrived at the current placement; although he has remained within the local area during these times. Client D's sexualised behaviour has predominately been towards male members of staff, his sisters and his peers. He may be considered more of a risk and have access to potential victims when working one to one with male members of the staff team. However, staff are fully aware of Client D's risk factors and these are being managed through his current placement and the high level of supervision and behavioural boundaries provided by such a placement. During the next six months, it is envisaged that Client D will remain at this placement and, as such, his risk would continue to be managed. If this is the case, then Client D will continue to work with a

staff team who are fully aware of his high-risk factors and who would monitor and control his whereabouts. This factor has been rated as '**not present**'.

TREATMENT FACTORS:

The final domain is that of treatment. Due to Client D's persistent low mood, dysregulation and current presentation he is yet to undertake any offence-specific work. Therefore, both factors in this domain have been rated as present.

No development or practice of realistic prevention plans/strategies:

Client D is in the early stages of his therapeutic work and, as such, he has not yet developed or practiced strategies to cope with potentially high-risk factors for sexual re-offence, which is why this factor has been rated as '**present**'.

Incomplete sexual offence-specific treatment:

This factor is '**present**' as Client D is yet to complete any offence specific work to address his past sexually harmful behaviour.

RISK RATING & CONCLUSION:

At the present time, the results indicate that Client D presents with a **moderate level of concern** with respect to his potential to re-offend sexually, as 16 out of a possible 25 high-risk factors were present, 3 were possibly or partially present, and 6 were rated as not present.

Given the rapid developmental changes during adolescence, the potential change in a number of these risk factors, and the fact that much of the supporting research is based on follow-up data of less than 3 years, it is essential to note that this estimate of risk should be re-evaluated after a period of at most 12 months or following significant social, environmental, familial, sexual, affective, physical, or psychological change.

When considering Client D's past sexually harmful behaviour it would seem likely that his potential range of victims would be diverse, including younger children, peers or adults known to him, particularly male members of staff he feels close to. Given Client D's high level of impulsivity, learning and emotional regulation difficulties it seems likely that his previous sexually harmful behaviour was opportunistic in nature; however, it has not been possible to ascertain whether there was an element of planning involved.

Due to his size and his physically and verbally aggressive behaviour Client D can be quite intimidating to others. This has caused some difficulty for Client D in establishing and maintaining interpersonal relationships with his peers. It will be imperative that Client D improves his capacity for self-regulation and his ability to form and maintain positive appropriate relationships with his peers. It is hoped that the therapeutic work at the current placement will assist Client D in learning to manage his feelings more effectively so that he does not continue to

present with sexualised, impulsive and aggressive reactions to difficult feelings and/or situations. Furthermore, living in a therapeutic environment with other young people should assist him to improve his social skills and ability to relate to peers.

Client D will benefit from gaining an increased understanding regarding sexual boundaries and relationships, insight regarding his harmful sexual behaviour, the impact his behaviour has on others, and learning to accept responsibility for his actions. This, along with living in a highly structured, consistent and caring environment will provide Client D with the opportunity of a safe future. Due to Client D's learning disability and difficulties with his memory, it is therefore increasingly important that interventions addressing Client D's specific needs are tailored in a way he can access them.

Client D's current level of risk is being managed through his placement and his motivation to engage in a treatment programme. Although the potential risk of Client D reoffending sexually is currently rated as moderate, it would likely have been rated higher prior to his move to the current placement. Within the context of the current placement Client D is subject to a greater degree of supervision and this appears to have already made a positive impact on the level and frequency of sexualised behaviour demonstrated by him. Client D now has a significant amount of work to undertake to ensure that he can maintain this when monitoring is reduced.

It is hoped that if Client D continues to engage in his individual therapy program and make progress, that he will join the Social and Emotional Competency group work programme. This group will help Client D to further develop and internalise appropriate pro-social attitudes and beliefs and develop his capacity for taking responsibility and making changes. Client D has indicated a willingness to engage in the work and has settled in well to life at the current placement and is showing some good progress.

Appendix 11: Case Study Pre-and Post-Treatment Psychometric Assessment Scores Compared to Normative Sample Scores

<i>Scale</i>	<i>Pre</i>	<i>Post</i>	<i>Normative Range</i>
<i>PRI</i>	42 Questionable	44 Questionable	25 - 41
<i>IRI</i>			
Perspective Taking	10 (Average)	16 (Average)	9 - 20
Empathic Concern	20 (Average)	23 (Above Average)	13 - 22
Fantasy	13 (Average)	14 (Average)	9 - 15
Personal Distress	9 (Average)	12 (Average)	6 - 14
<i>CABS</i>			
Under Assertive	10 (Low Average)	12 (Low Average)	8-25
Over Assertive	28 (Above Average)	16 (Low Average)	
Total Score	38 (High - Tendency to be over assertive)	28 (Above Average - more likely to be over assertive in communication style)	
<i>Resiliency Scales for Children and Adolescents</i>			
Resources	27 (Low)	44 (Below Average)	45 - 54
Vulnerability	65 (High)	60 (High)	45 - 54
Sense of Mastery	22 (Low)	39 (Below Average)	45 - 54
Optimism	4 (Low)	8 (Average)	8 - 12
Self-Efficacy	1 (Low)	6 (Below Average)	8 - 12
Adaptability	5 (Below Average)	10 (Average)	8 - 12
Sense of Relatedness	36 (low)	47 (Average)	45 - 54
Trust	6 (Below Average)	7 (Below Average)	8 - 12
Support	4 (Low)	10 (Average)	8 - 12
Comfort	8 (Average)	11(Average)	8 - 12
Tolerance	9 (Average)	8 (Average)	8 - 12
Emotional Reactivity	52 (Average)	52 (Average)	45 - 54
Sensitivity	10 (Average)	12 (Average)	8 - 12
Recovery	9 (Average)	11 (Average)	8 - 12
Impairment	11 (Average)	16 (High)	8 - 12

<i>Scales Not Repeated Post Intervention</i>	<i>Pre</i>	<i>Normative</i>
SKB	15 (Average)	14-20 Range
SSD	22 (Normally Open)	17-35 Range
<i>TSCC</i>		
<i>Anxiety</i>	41	For all clinical scales except Sexual Concerns and its subscales, T scores above 65 are considered clinically significant. T scores in the range of 60-65 are suggest of difficulty and may represent sub clinical (but significant) symptomology. For the Sexual Concerns scale and subscales T scores above 70 are considered clinically significant. Did not over/under respond on any of the scales, T scores on all scales fell in the normative range.
<i>Depression</i>	54	
<i>Anger</i>	49	
<i>Post-traumatic Stress</i>	39	
<i>Dissociation</i>	41	
<i>Fantasy</i>	42	
<i>Overt Dissociation</i>	43	
<i>Sexual Concerns</i>	48	
<i>Sexual Preoccupation</i>	48	
<i>Sexual Distress</i>	45	
<i>The ASK Knowledge Test</i>		
<i>Parts of the Body</i>	38/40	The ASK is a structured interview requiring clinical interpretation, there are no norms for comparing scores for diagnostic purposes.
<i>Public and Private Parts and Places</i>	9/12	
<i>Puberty</i>	7/12	
<i>Menstruation</i>	9/10	
<i>Menopause</i>	2/4	
<i>Masturbation</i>	10/10	
<i>Relationships</i>	21/22	
<i>Protective Behaviours</i>	14/14	
<i>Sexuality</i>	19/26	
<i>Safe Sex Practices</i>	3/4	
<i>Contraception</i>	6/10	
<i>Pregnancy and Birth</i>	6/8	
<i>Sexual Health-screening tests</i>	2/16	
<i>Sexually Transmitted Infections</i>	2/12	
<i>Legal Issues (Rights)</i>	10/12	
<i>Legal Issues (Illegal Behaviours)</i>	16/16	
<i>Total Score</i>	188/248	

ASEBA Cross-Informant Agreement – Reported Level of Difficulty by Responded Pre-Post Intervention

Scale	<i>Client D Self Report (YSR)</i>		<i>Residential Key Worker Report (CBCL)</i>		<i>Teacher Report (TRF)</i>	
	<i>Pre-Intervention</i>	<i>Post-Intervention</i>	<i>Pre-Intervention</i>	<i>Post-Intervention</i>	<i>Pre-Intervention</i>	<i>Post-Intervention</i>
<i>Anxious/Depressed</i>	Normal	Normal	Clinical	Normal	Clinical	Clinical
<i>Withdrawn/Depressed</i>	Normal	Normal	Clinical	Normal	Normal	Normal
<i>Somatic Complaints</i>	Normal	Normal	Clinical	Normal	Normal	Normal
<i>Social Problems</i>	Normal	Normal	Clinical	Normal	Borderline	Clinical
<i>Thought Problems</i>	Normal	Normal	Clinical	Normal	Clinical	Clinical
<i>Attention Problems</i>	Normal	Normal	Clinical	Normal	Borderline	Borderline
<i>Rule-Breaking Behaviour</i>	Normal	Normal	Normal	Borderline	Borderline	Clinical
<i>Aggressive Behaviour</i>	Normal	Normal	Clinical	Normal	Clinical	Clinical
<i>DSM-IV Scales</i>						
<i>Affective Problems</i>	Normal	Normal	Clinical	Borderline	Clinical	Clinical
<i>Anxiety Problems</i>	Normal	Normal	Clinical	Normal	Clinical	Clinical
<i>Somatic Problems</i>	Normal	Normal	Normal	Normal	Normal	Normal
<i>ADHD</i>	Normal	Normal	Clinical	Normal	Clinical	Borderline
<i>Oppositional Defiant</i>	Normal	Normal	Clinical	Normal	Clinical	Borderline
<i>Conduct Problems</i>	Normal	Normal	Clinical	Borderline	Clinical	Borderline

T scores 64 or less = Normal Range, T scores 65-69 = Borderline Clinical Range, T scores 70+ = Clinical Range

Green Scores = Improvement, Red Scores = Decline, Black Scores = No Change

Post-Treatment: Apart from increases in observed Rule Breaking Behaviour, the greatest positive change observed across scales was in his residential setting. Social Problems and Rule Breaking Behaviour were observed to be worse in the school setting, whereas ADHD, Oppositional Defiant and Conduct problems were observed to have improved.

Appendix 12: Feelings Cards Exercises

Aim – The identification of the emotion in self, identification of the emotion in others, factors in the environment that precipitate the feeling.

Resources Needed: A set of Emotion Cards depicting real faces portraying a range of emotions.

1. Identifying Feelings in Others/Self, Contextualising Feelings.

Have the young person identify and label what he believes that he is seeing in the picture

Start from basic emotions to more subtle

Start with the pictures that contain obvious effect

Start with a limited number of emotions (e.g. sad, mad, happy, worried...)

Expand to subtler emotions and/or variations on a single emotion (e.g. a series of cards that depict frustration, irritation, anger, rage).

Ask the young person to identify possible reasons for each emotion shown (e.g. what do you think happened to make him/her feel?)

Have the young person identify personal experiences that might elicit the same or similar feelings (e.g. "What kinds of things make you feel...?")

2. Tell Me Why?

Select three different faces showing the same feeling and one face showing a different feeling mix the four cards together and ask the young person to identify the ones that are the same and the one that is different. Discuss what facial expression or body gestures make the picture different from the others.

3. Make a List

Shuffle the feelings cards and place face down in a pile. Each player chooses a card and decides what emotion the card is showing. Each player then makes a list of all the events in life that cause them to have that same emotion.

4. Situation Solution

Taking some negative feelings from the deck (e.g. angry, worried). Shuffle these cards and place face down in a pile. Each player takes one card. The players tell what they will do in the future when they experience that negative emotion (e.g. count from 1 to 10).

5. Understanding Emotions

Using a mirror ask the young person to focus on the most important parts of the face that related to emotion; the mouth, cheeks, nose, eyes, forehead, etc. Using the hand held mirror have him practice moving these parts to make a smile, frown, furrowed, surprised, angry face etc.

Choose cards that show a specific category of emotion (e.g. happy or sad) and review the body parts involved in making expressions. Be sure to show a variety of people making these expressions as different people express an emotion using a combination of different body parts. Then, have child or adult use his/her mirror to practice these expressions.

Appendix 13: Comparison of Sexual Knowledge Assessment Tools

Name	Designed to measure	Age Range	Psychometric Qualities	Research Papers where cited.	Positives	Negatives	Validity/ Reliability
Assessment of Sexual Knowledge – ASK – Butler, Leighton & Galea, (2003)	<p>Comprises of four related assessments, which can be used together or in isolation:</p> <ul style="list-style-type: none"> Sexual Knowledge component <p>15 Sections, parts of the body, public and private parts and places, puberty, menstruation, menopause, masturbation, relationships, protective behaviours, sexuality, Safe sex practices, contraception, pregnancy, birth, sexual health-screening tests, STI's and legal issues regarding sexuality.</p> <ul style="list-style-type: none"> Attitudes relating to sexuality (guided interview to contextualise the respondent's sexual knowledge) <p>6 Sections: - masturbation.</p>	16+	<p>Yes</p> <p>Knowledge Test comprises of 124 items</p> <p>Takes 40 to 60 minutes to complete</p> <p>No Norms</p>	<p>Galea, Butler, Iacono & Leighton (2004)</p> <p>Developed using a pilot group of 10 IDD ppts and data obtained to make revisions.</p> <p>Applied to a larger sample of 96 individuals with IDD to test reliability and validity of the measure (some had taken part in offender treatment programs or had displayed inappropriate sexual behaviour</p> <p>Burrett (2010) Used to successfully assess sexual knowledge in sex offenders with IDD pre-and post intervention.</p>	<p>Designed to be used with individuals with IDD (mild to moderate). Authors state it can be used with individuals at risk of developing harmful sexual behaviour</p> <p>Comes with a supportive picture booklet.</p> <p>Components can be used as a screening tool to determine if educational and or behavioural intervention is required.</p> <p>Can be used as a pre/post check on the outcomes of human relations education or other interventions.</p>	<p>Attitudes component does not contain questions about the individual's sexual history or preferences, instead designed to elicit how a person feels about a particular subject.</p> <p>Pictures are sexually explicit need to be used with caution.</p>	<p>Is reliable across examiners and will also elicit responses that are stable over time.</p> <p>Good Face Validity</p> <p>Inter-rater reliability was reported to be good with section total correlations between 83% and 99% respectively</p> <p>Test re-test, over a one to two week interval – good section total correlations between .62 and 1.00</p> <p>Good overall internal consistency .89</p>

Name	Designed to measure	Age Range	Psychometric Qualities	Research Papers where cited.	Positives	Negatives	Validity/ Reliability
Assessment of Sexual Knowledge – ASK, Continued – Butler, Leighton & Galea, (2003)	<ul style="list-style-type: none"> Menstruation, contraception, Pregnancy, sexuality and relationships. Problematic socio-sexual behaviour's checklist (completed by carer): - inappropriate and/or unusual sexual behaviours, behaviours that may be pre-cursors of sexual offending, behaviours, which may potentially involve the criminal justice system. Quick knowledge quiz (brief overview of the respondents' sexual knowledge) 						
Socio-Sexual Knowledge and Attitudes Assessment Tool (SSKAAT-R) Griffiths & Lunsky (2003)	Criterion-based assessment of what the individual knows and believes. 7 sections: <ul style="list-style-type: none"> Anatomy (12 items) Women's bodies and women's knowledge of Men (35 items, for women only) 	15-80	Good psychometric properties. Field tested with 8 sites across Canada and US total of 276 individuals (40% female 60% male) Includes community and institutional samples	Griffiths & Lunsky (2003) Michie, Lindsay, Martin and Grieve (2006)	Has been developed to use specifically with individuals with IDD and those who have limited language capabilities Untimed and open ended. Developed to	No sexual openness scale. Can be difficult to score and can take time to score (up to 1 hr.)	Strong internal consistency (0.81 – 0.92 using Cronbach's alpha), High-test re-test reliability (0.78 – 0.96) and high inter-rater reliability (0.89 - 0.96).

Name	Designed to measure	Age Range	Psychometric Qualities	Research Papers where cited.	Positives	Negatives	Validity/Reliability
<p>Continued...</p> <p>Socio-Sexual Knowledge and Attitudes Assessment Tool (SSKAAT-R) Griffiths & Lunsky (2003)</p>	<ul style="list-style-type: none"> • Men's bodies and men's knowledge of women (22 items) • Intimacy (35 items) Pregnancy, childbirth and child rearing (32 Items) • Birth Control and STD's (35 items) • Sexual Boundaries (27 items) 		<p>Sex offenders (n=63) College Sample (control group n=30)</p> <p>Some Norms based on Institutionalised samples.</p>	<p>Lunsky, Frijters, Griffiths, Watson and Williston (2007)</p> <p>16 – 71 years</p> <p>48 Sex offenders with IDD and 48 non-Sex offenders with IDD (mild to severe)</p> <p>Lockhart, Guerin, Shanahan, Coyle (2010)</p> <p>25-65 years</p>	<ul style="list-style-type: none"> • Determine the knowledge and attitudes of people with developmental disabilities with regard to socio-sexual information. • Serve as a baseline and an educational aid when developing person-centered socio-sexual curricula. • Provide a means of evaluating socio-sexual training effectiveness. • Aid in evaluation research. • 5) Serve as one aspect of a comprehensive assessment for individuals who may be experiencing socio-sexual challenges. 	<p>Non-UK Norm (United States, Canada)</p>	<p>Good content validity (correlated with related measures of sexuality).</p> <p>Able to differentiate between knowledge and attitudes of individuals with and without IDD.</p>

Name	Designed to measure	Age Range	Psychometric Qualities	Research Papers where cited.	Positives	Negatives	Validity/ Reliability
Sex Ken –ID McCabe & Cummins, (1994)	Interview style questionnaire that consists of 12 subscales, which are conducted as 3 interviews. 1) Friendships (23 items) Dating and Intimacy (16 items) Marriage (16 items) Body part identification (21 items) 2) Sex and sex education (16 items) Menstruation (16 items) Sexual interaction (52 items) Contraception (19 items) Pregnancy, Abortion and Childbirth (24 items) 3) STI's (19 items) Masturbation (16 items) Homosexuality (10 items)	15+	Shown to have good psychometric properties 248-items in total Yes/no and 5-point Likert-scale response formats Can be administered in approximately 1 hour. The SexKen-ID has the advantage of being available in a format suitable for those with physical disabilities and those in the mainstream non-ID population and is therefore a sound choice if comparisons between samples are required.	McCabe, Cummins & Reid (1994) Szollos & McCabe (1995) McCabe & Cummins (1996) McCabe (1999) McCabe, Cummins & Deeks (1999)	Designed to evaluate sexuality of people with mild IDD Reliable measure for the assessment of sexuality among people with intellectual disabilities, physical disabilities, and from the general population.	Does not include a rating on the person's attitude but does include some probing questions regarding personal thoughts and experiences. Some of the language is out-dated and items may not reflect current sexual concerns Non-UK norm (Australia)	High levels of internal consistency and stable over time For needs and feelings dimensions Some of the subscales are not as reliable, but this may be attributable to the small number of items in these subscales (2 to 5 items) Different from the SSKAT and SSKAAT-R because it also requests information about sexual experiences.

Appendix 14: Face Validity Evaluation Scores for the Knowledge Test Component of the ASK

Section Number	Description	Quality of Questions (n=16)	Breadth of Questions (n=16)	Ease of Administration (n=16)	Appropriate Language (n=16)	Accuracy of Responses (n=16)
1	Body Parts	4.63	4.75	4.25	4.25	4.63
2	Public and Private	4.31	3.94	4.31	4.31	4.25
3	Puberty	4.31	4.31	4.44	4.25	4.25
4	Menstruation	4.44	4.38	4.50	4.44	4.38
5	Menopause	4.19	3.75	4.13	4.19	4.06
6	Masturbation	4.69	4.56	4.38	4.69	4.50
7	Relationships	4.38	4.31	4.31	4.19	4.25
8	Protective behaviours	4.56	4.31	4.25	4.25	4.19
9	Sexuality	4.50	4.56	4.38	4.44	4.38
10	Safe Sex	4.19	3.81	4.25	3.69	3.69
11	Contraception	4.44	4.44	4.31	4.19	4.19
12	Pregnancy	4.56	4.50	4.50	4.44	4.50
13	Sexual Health	4.47	4.60	4.20	4.20	4.13
14	STI's	4.47	4.40	4.27	4.13	4.40
15	Legal Issues	4.25	4.50	4.31	4.00	4.00

Adapted from Butler, Leighton and Galea, (2003).

Appendix 15: Test-Retest Reliability Figures for the Knowledge Test Component of the ASK

Section	No of Items	Percentage Agreement (<i>n</i> =96)		Correlation of section Totals
		Range (%)	Mean (%)	(<i>p</i>)
Body Parts	20	64-99	88	0.87
Public and Private	6	60-74	69	1.00
Puberty	6	71-90	79	0.71
Menstruation	5	80-92	83	0.76
Menopause	2	78-97	88	0.62
Masturbation	5	73-87	79	0.75
Relationships	11	68-95	81	0.75
Protective behaviours	7	67-94	82	0.63
Sexuality	13	75-97	86	0.86
Safe Sex	2	85-95	90	0.88
Contraception	15	63-98	87	0.89
Pregnancy	4	73-94	84	0.75
Sexual Health	8	73-100	91	0.78
STI's	6	72-96	85	0.76
Legal Issues (rights)	6	82-93	85	0.77
Legal Issues (Illegal behaviours)	8	68-90	78	0.66

Adapted from Butler, Leighton and Galea, (2003).

Appendix 16: Inter-Rater Reliability for the Knowledge Test Component of the ASK

Inter-Rater Reliability (<i>n</i> =33)						Correlations of Section Totals
Item by Item (percent agreement)						
Time 1			Time 2			
Section	No of Items	Range (%)	Mean (%)	Range (%)	Mean (%)	(p)
Body Parts	20	73-100	95.05	82-100	95.8	0.91
Public and Private	6	82-97	89.5	91-100	96.5	0.94
Puberty	6	82-94	90.5	88-100	94.0	0.83
Menstruation	5	67-100	86.8	91-100	97.0	0.95
Menopause	2	97	97.0	94-97	95.5	0.90
Masturbation	5	85-100	93.4	91-97	93.4	0.95
Relationships	11	82-100	95.4	88-100	95.3	0.95
Protective behaviours	7	85-100	93.6	91-100	97.0	0.85
Sexuality	13	87-100	93.8	88-100	95.1	0.95
Safe Sex	2	85-100	92.5	100	100	0.95
Contraception	15	70-100	89.3	86-100	94.5	0.94
Pregnancy	4	82-100	94.8	91-100	96.3	0.95
Sexual Health	8	91-100	98	83-100	93.0	0.99
STI's	6	88-100	97.5	94-100	98.0	0.93
Legal Issues (rights)	6	88-97	95.0	91-100	93.0	0.98
Legal Issues (Illegal behaviours)	8	88-100	95.3	88-100	95.9	0.96

Adapted from Galea, Butler, Iacono and Leighton (2004)

Appendix 17: Learning Disability Working Group (LDWG) Members and the Organisations They Represent

The LDWG was originally conceived by Stephen Barry, Clinical Psychologist, Service Manager and Lead Clinician for Be Safe, Bristol, and Richard Beckett, Consultant Clinical and Forensic Psychologist, The Adolescent Sexual Offender Project (ASAP). Stephen and Richard contacted known and long-standing professionals working in the field of assessment and treatment for adolescents with harmful sexual behaviours and invited them to an initial meeting on 4th June 2009. This was with the aim of forming a working group of specialist professionals whose purpose would be to investigate, review, and adapt reliable tools to better assess risk and treatment outcomes for young people with IDD and problematic or harmful sexual behaviour.

As a result of this meeting the LDWG was formed. Other members at this time were; Kathryn Nichol, Be Safe; Bobby Print, Director, GMAP; Rachel Edwards Chartered Forensic Psychologist, SWAAY Child and Adolescent Services Ltd.

At meetings members are able to put forward suggestions for new members (practitioners/professionals based in similar services) which are then discussed. If it is agreed that the proposed individual would make a positive contribution, they are then approached by the initial proposer to see if they are interested in joining the group. This process led to Marilyn Sher, Chartered Forensic Psychologist, Adolescent Services, St Andrews Healthcare, and Rowena Rossiter,

Consultant Clinical Psychologist from the Tizard Centre and Chair of the Young Sex Offender Treatment Services Collaborative - Intellectual Disabilities (ySOTSEC-ID) being invited to become members of the group. The LDWG has historically met on average once a quarter (although at time the frequency has been less). Over the LDWG's 8-year existence, professionals representing these organisations and guests from many others (e.g. NSPCC, Lucy Faithfull Trust and Barnardos) have contributed to the groups ongoing aims.

The current members of the LDWG continue to have a wide range of skills and expertise in the area of assessment and treatment of adolescents with and without intellectual development disorder (IDD), who also display harmful sexual behaviour. Members and invited guests of the LDWG met several times during the development of the ASKA to peer review the questionnaires development at various stages, e.g. to provide advice on topic areas and content, with the focus on assessing sexual knowledge in those areas considered to be more relevant to risk of harmful sexual behaviour.

In addition to the LDWG, eight teachers/professionals involved in the delivery of Sex and Relationships Education in both mainstream and special secondary schools were also consulted during the developmental stages of the questionnaire. This was to establish if the proposed topics, items and supporting pictures were in line with

what was being taught and viewed in Sex and Relationship lessons with male pupils aged 12-17 years.

In its final development stage, the draft questionnaire was also reviewed by two qualified Speech Language Therapists working with children and young people with IDD and harmful sexual behaviour. These professionals provided advice on the linguistic and temporal structure of each question to enable item structure to be more accessible to young people with IDD. Below is a list of LDWG Members and Guests during the ASKA's development

Name	Organisation
Stephen Barry	Principal Clinician, Be Safe, Bristol
Lucy Cygan (Guest)	Trainee Forensic Psychologist, Nottingham University
Rachel Edwards	Head of Community Based Services, Forensic Psychologist, SWAAY Child and Adolescent Services Ltd, Reading
Helen Griffin	Senior Practitioner and Head of Research, G-Map
Aida Malovic (Guest)	Research Assistant, Tizard Centre, London
Dr Emma Marks	Chartered Forensic Psychologist, St Andrew's Healthcare, Northampton
Dr Anne McClean	Senior Clinical and Forensic Psychologist, St Andrew's Healthcare, Northampton
Samantha Richards	Trainee Forensic Psychologist, Nottingham University
Dr Rowena Rossiter	Consultant Clinical Psychologist of the Tizard Centre and Chair of ySOTSEC-ID
Dr Mel Turpin	Clinical Psychologist, Be Safe Bristol

Sex and Relationships Education Teachers/Professionals	
Sarah Burrows	Lead in PHSE and Sex and Relationships Teacher, Easthampstead Park Community School, Bracknell
Julie Cox	Sex and Relationships Lead, Kingsweston Special School, Bristol
Sarah Davies	PHSE and Deputy Head for Pastoral Care, Notting Hill and Ealing High School, London
Shane Green	Head of ICT and Sex and Relationships Teacher, Easthampstead Park Community School, Bracknell
Sharon Hart	Safeguarding and Pastoral Lead, Kingsweston Special School, Bristol
Jenny Hooper	Teacher, Manor Green Special School, Maidenhead
Sarah Mitchell	Teacher, Manor Green Special School, Maidenhead
Glen Wiseman	Sexual Health Youth Worker, Bracknell Forest Borough Council Youth Service

Speech and Language Professionals	
Hannah Coles	Speech Language Therapist, Specialist Children's Health Service, Guy's and St Thomas' NHS Foundation Trust.
Emma Hoare	Speech Language Therapist, SWAAY Child and Adolescent Services Ltd, Reading

Appendix 18: The Assessment of Sexual Knowledge in Adolescents – (ASKA) and Supporting Picture Book



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

The Assessment of Sexual Knowledge in Adolescents - 'ASKA'

(Final version 1.4: Date: 15.03.15)

Adapted from, *The Assessment of Sexual Knowledge - 'ASK'* (Butler, Leighton & Galea, 2003) by Samantha Richards in consultation with the Learning Disability Working Group.

Today's Date: _____
Young Person's Identification Number: _____ Age: _____
School Year: _____ Ethnic Origin: _____
Name of Organisation: _____
Name of Administrator: _____

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Section 1 – Parts of the Body

Circle the appropriate score for each question and add comments in the space provided.

Item	Score
<p>1. Which of these people is most like you? (use pictures 1 & 2)</p> <p>Correct 2 Incorrect 0</p> <p><i>Comments:</i> _____</p>	
<p>2. What are these called? [Point to the HANDS] (use pictures 1 & 2)</p> <p>Hands/hand/fingers/thumb/other colloquial terms 2 Incorrect 0</p> <p><i>Comments:</i> _____</p>	
<p>3. What is this called? [Point to the PENIS] (use picture 2)</p> <p>Penis/Cock/dick/willy/other colloquial terms 2 Incorrect 0</p> <p><i>Comments:</i> _____</p>	
<p>4. What does a man use his <i>penis</i> for?</p> <p>At least two of: anything related to reproduction, sexual activity, urination, masturbation 2 Any one of the above 1 Don't know/Incorrect answer 0 <i>PROMPT: Anything Else?</i></p> <p><i>Comments:</i> _____</p>	
<p>5. What are these called? [Point to the TESTICLES] (use picture 2)</p> <p>Testicle(s), test(s), balls, scrotum, other colloquial terms 2 Groin, crotch, privates, private parts 1 Don't know/Incorrect answer 0 <i>PROMPT: What is behind the man's penis?</i></p> <p><i>Comments:</i> _____</p>	

Item	Score
<p>6. Why does a man have <i>testicles</i>?</p> <p>At least one of: anything related to reproduction, anything related to semen/sperm production or ejaculation</p> <p>Anything related to sex</p> <p>Don't know/incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>1</p> <p>0</p>
<p>7. What is this called? [Point to the BOTTOM] (use picture 3)</p> <p>Buttocks, backside, arse, bottom, bum, other colloquial terms</p> <p>Privates, private parts</p> <p>Don't know/Incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>1</p> <p>0</p>
<p>8. What do people use their <i>bottoms</i> for?</p> <p>Bowel motions and /or sexual activity, specific description</p> <p>Sitting, passing wind</p> <p>Don't know/Incorrect answer</p> <p><i>PROMPT: Anything Else?</i></p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>1</p> <p>0</p>
<p>9. What is this called? [Point to the MOUTH] (use pictures 1 & 2)</p> <p>Mouth/lips/Gob</p> <p>Head/face</p> <p>Don't know/Incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>1</p> <p>0</p>
<p>10. What are these called? [Point to the BREASTS] (use picture 1)</p> <p>Breasts, boobs, tits, bosom, knockers, hooters, other colloquial terms</p> <p>Privates, private parts</p> <p>Don't know/Incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>1</p> <p>0</p>
<p>11. What does a woman use her <i>breasts</i> for?</p> <p>To provide milk to a baby and /or for sex, to suck (no reference to baby)</p> <p>Don't know/Incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>0</p>

Item	Score
12. What is this called? [Point to the VAGINA]	(use picture 1)
Vagina, vulva, fanny, pussy, other colloquial terms	2
Private, private parts, groin	1
Don't know/Incorrect answer	0
<i>PROMPT: Anything Else?</i>	
<i>Comments:</i> _____	
13. What does a woman use her <i>vagina</i> for?	
At least two of: making a baby, menstruation, masturbation, sexual activity, urination	2
Any one of the above	1
Don't know/Incorrect answer	0
<i>PROMPT: Anything else?</i>	
<i>Comments:</i> _____	

Total Score

Section 2 – Public and Private Parts and Places

Item	Score
<p>14. Point to the private parts of a man's body? (use picture 2)</p> <p>Points to the Penis, testicles, bottom 2 Any one of the above 1 Don't know/Incorrect answer 0</p> <p><i>PROMPT: Private parts – parts of your body that you don't show to other people without your permission</i> <i>PROMPT: Anything else?</i></p> <p><i>Comments:</i> _____</p>	
<p>15. Point to the private parts of a woman's body? (use picture 1)</p> <p>Points to vagina, breasts, bottom, 2 Any one of the above 1 Don't know/Incorrect answer 0</p> <p><i>PROMPT: Private parts – parts of your body that you don't show to other people without your permission</i> <i>PROMPT: Anything else?</i></p> <p><i>Comments:</i> _____</p>	
<p>16. Point to a picture of a private place. (use picture 4)</p> <p>Bedroom, bathroom/shower 2 Any one of the above 1 Don't know/Incorrect answer 0</p> <p><i>PROMPT: Private place – a place where you can be alone or by yourself</i> <i>PROMPT: Anything else?</i></p> <p><i>Comments:</i> _____</p>	
<p>17. What sort of things can people do in a private place?</p> <p>Any two of: dress, wash, have sex, masturbate, any other socially appropriate activity 2 Any one of the above 1 Don't know/Incorrect answer 0</p> <p><i>PROMPT: Private place – a place where you can be alone or by yourself</i> <i>PROMPT: Anything else?</i></p> <p><i>Comments:</i> _____</p>	

Item	Score
18. Point to a picture of a public place	(use picture 4)
Bus, classroom	2
Any one of the above	1
Don't know/Incorrect answer	0
<i>PROMPT: Public place – a place where other people can go, e.g. outside of the house, in the community.</i>	
<i>PROMPT: Anything else?</i>	
<i>Comments:</i> _____	
19. What sort of things can people do in a public place?	
Any two socially acceptable activities	2
Any one of the above	1
Don't know/Incorrect answer	0
<i>PROMPT: Public place – a place where other people can go</i>	
<i>PROMPT: Anything else?</i>	
<i>Comments:</i> _____	

Total Score

Section 3: Puberty

Item	Score
20. Point to the teenagers. (use pictures 1 & 2)	
Correct	2
Incorrect	0
<i>Comments:</i> _____	
21. Point to the children. (use pictures 1 & 2)	
Points to male and female child and male and female baby	2
Points to either the children or the babies but not a combination of both	1
Incorrect	0
<i>NB: If respondent points to male and female child but not the babies, or the babies but not the male or female child then use prompt.</i>	
<i>PROMPT: Any others?</i>	
<i>Comments:</i> _____	
22. Point to the adults. (use pictures 1 & 2)	
Correct	2
Incorrect	0
<i>Comments:</i> _____	
23. What happens to a boy's body when he changes to a young man?	
Any three of: voice deepens, pubic hair growth, wet dreams, spots/acne, grows facial hair, increased interest in sex and or girls, penis gets bigger, testicles get bigger, other changes associated with puberty.	2
Any one or two of the above	1
Don't know/incorrect answer	0
<i>PROMPT: Anything else?</i>	
<i>NB: If respondent replies 'Puberty' use the prompt to gain further detail</i>	
<i>Comments:</i> _____	
24. What happens to a girl's body when she changes to a young woman?	
Any three of: pubic hair growth, breasts develop, menstruation begins, spots/acne, hips become bigger, increased interest in sex and/or boys, other changes associated with puberty	2
Any one or two of the above	1
Don't know/incorrect answer	0
<i>PROMPT: Anything else?</i>	
<i>Comments:</i> _____	

Item	Score
25. What is it called when the penis looks like this?	(use picture 5)
Erection, hard on, stiffie, other colloquial terms	2
Don't know/Incorrect answer	0
<i>Comments:</i> _____	

Total Score

Section 4: Masturbation

Item	Score
26. What is this boy doing? (use picture 6)	
Masturbating, wanking, playing with himself, other colloquial terms, specific description	2
Hard on, erection, stiffie, moving hands on penis, unrelated to sex	1
Don't know/Incorrect answer	0
<i>Comments:</i> _____	
27. Where is it okay for a boy to do this, <i>masturbate</i> ?	
Bedroom, bathroom, private toilet, in a private place	2
Other toilet	1
Don't know/incorrect answer	0
<p>N.B. If they answer 'toilet' use the prompt to establish if they mean a public or private toilet, if public score 1. PROMPT: What kind of toilet</p>	
<i>Comments:</i> _____	
28. What is this girl doing? (use picture 7)	
Masturbating, playing with herself, other colloquial terms, specific description	2
Moving hands on vagina, unrelated to sex	1
Don't know/Incorrect answer	0
<i>Comments:</i> _____	
29. Where is it okay for a girl to do this, <i>masturbate</i> ?	
Bedroom, bathroom, private toilet, in a private place	2
Other toilet	1
Don't know/incorrect answer	0
<p>N.B. If they answer 'toilet' use the prompt to establish if they mean a public or private toilet, if public score 1. PROMPT: What kind of toilet</p>	
<i>Comments:</i> _____	

Item	Score
<p>30. What does it mean to have an orgasm or come?</p> <p>Semen comes out of penis, ejaculating, squirting, the peak of a woman's sexual arousal, contracting of a woman's lower pelvic muscles or other colloquial terms.</p> <p>Don't know/incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>0</p>
<p>31. What is the white sticky stuff that comes out of a man's penis called?</p> <p>Semen, sperm, 'cum', spunk, other colloquial terms</p> <p>Don't know/incorrect answer</p> <p><i>Comments:</i> _____</p>	<p>2</p> <p>0</p>

Total Score

Section: 5 - Relationships:

Item	Score
32. What kind of relationship do these people have? (use picture 8)	
Friendship, mates	2
Don't know/incorrect answer	0
<i>Comments:</i> _____	
33. What sort of things can people do with friends?	
Any two of: hugging, talking, going to the movies, having dinner, go for a drink, have a laugh, other socially appropriate behaviour and activities	2
One of the above	1
Don't know/incorrect answer	0
PROMPT: Anything else?	
<i>Comments:</i> _____	
34. What kind of a relationship do these people have? (use picture 9)	
Girlfriend and boyfriend, other colloquial terms	2
Don't know/incorrect answer	0
<i>Comments:</i> _____	
35. What sort of things can people do with their girlfriend/boyfriend?	
Any two of : hugging, kissing, sex, going to the movies, having dinner talking, other socially appropriate behaviour and activities	2
One of the above	1
Don't know/incorrect answer	0
PROMPT: Anything else?	
<i>Comments:</i> _____	
36. This is a picture of a young woman. [Point to the young woman] (use picture 10) Point to the person most likely to be her boyfriend.	
Male her own age	2
Elderly man	1
Any female or young boy	0
<i>Comments:</i> _____	

Item	Score
37. This is a picture of an old man. [Point to the elderly man] Point to the person most likely to be his girlfriend.	(use picture 10)
Female his own age	2
Young woman	1
Any male or young girl	0
<i>Comments:</i> _____	
38. Point to the people who could be married.	(use picture 10)
Elderly couple, adult man and woman, combination of adults couples	2
Don't know/incorrect answer	0
PROMPT: Anyone else?	
<i>Comments:</i> _____	

Total Score

Section 6: Social-Sexual Boundaries

Item	Score
<p>39. Who is allowed to touch the private parts of your body?</p> <p>Anyone you give permission to, any two of: me/myself, husband/wife, boyfriend/girlfriend, doctor 2</p> <p>Any one of the above, no one [don't prompt] 1</p> <p>Other 0</p> <p><i>PROMPT: Private parts-parts of your body that you don't show to other people without your permission.</i></p> <p><i>PROMPT: Anyone else?</i></p> <p><i>Comments:</i> _____</p>	
<p>40. Who can you tell if someone touches the private parts of your body and you don't want them too?</p> <p>Parents, carer, teacher, friend, doctor, police, psychologist, social worker 2</p> <p>Don't tell anyone, don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>41. What is happening here? (use picture 11)</p> <p>Two people shaking hands, saying hello, greeting each other, making friends, other colloquial terms 2</p> <p>Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>42. Is this an okay or not okay way of touching?</p> <p>Okay 2</p> <p>Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>43. What is happening here? (use picture 12)</p> <p>One person is touching another's private parts, the person is uncomfortable, does not like it, or similar response to indicate the touch is unwanted. 2</p> <p>Don't know/incorrect answer 0</p> <p><i>PROMPT: Can you tell me more</i></p> <p><i>Comments:</i> _____</p>	

Item	Score
<p>44. Is it okay to touch someone like this?</p> <p>Not okay 2 Don't know/incorrect answer 0</p> <p>NB: If they suggest it's okay if they are in a relationship use the prompt If they clarify then give 2 if fail to clarify then score 0) PROMPT: Can you tell me more</p> <p><i>Comments:</i> _____</p>	
<p>45. Seth likes Jane but Jane does not like Seth, is it okay for Seth to touch Jane if she does not want to be touched? (use picture 13)</p> <p>[Point to the young man each time you say 'Seth' and point to the young woman each time you say 'Jane']</p> <p>No 2 Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>46. Can a person say 'NO' to someone who wants to kiss them or touch them in a sexy way?</p> <p>Yes 2 No 0</p> <p><i>Comments:</i> _____</p>	

Total Score

Section 7: Sexuality

Item	Score
47. What is happening in this picture? (use picture 14)	
Having sex, making love, sexual intercourse, shagging, bonking fucking, other colloquial terms	2
Lying in bed, sleeping together	1
Don't know/incorrect answer	0
<i>Comments:</i> _____	
48. What happens to a woman's body when she feels sexually aroused/turned on?	
Nipples become erect and/or vagina becomes wet, specific description	2
Feels nice	1
Don't know/incorrect answer	0
<i>PROMPT: What happens to a woman's breasts, vagina?</i>	
<i>Comments:</i> _____	
49. What happens to a man's body when he feels sexually aroused/turned on?	
Penis becomes stiff/hard, gets an erection and /or nipples become erect, specific description	2
Feels nice	1
Don't know/incorrect answer	0
<i>PROMPT: What happens to a man's penis?</i>	
<i>Comments:</i> _____	
50. Where do people usually have <i>sexual intercourse</i> ? [Where relevant also say the word they gave in answer to Question 47]	
In the bedroom, in a private place	2
Don't know/incorrect answer	0
<i>PROMPT: Tell me more</i>	
<i>Comments:</i> _____	
51. What sexy things can you do with someone without having <i>sexual intercourse</i> ?	
Any two of: kissing, hugging, touching, masturbation, use of sex 'toys', other appropriate activities	2
Any one of the above	1
Don't know/incorrect answer	0
<i>PROMPT: Anything else?</i>	
<i>Comments:</i> _____	

Item	Score
<p>52. What is it called when a person puts their mouth on another person's penis or vagina? (use picture 15)</p> <p>Oral sex, fellatio, blow job, cunnilingus, licking her out, other colloquial terms 2 Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>53. What is it called when a man puts his penis in another person's bottom? (use picture 16)</p> <p>Anal intercourse, bum fucking, giving one up the arse, other colloquial terms 2 Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>54. What do you call a man who prefers to have sex with another man? (use picture 17)</p> <p>Homosexual, gay 2 Bent, poof, other derogatory term 1 Don't know/incorrect answer 0</p> <p><i>N.B. if they respond with a derogatory term use the prompt if they then use the correct term score 2.</i> <i>PROMPT: Do you know the proper word?</i></p> <p><i>Comments:</i> _____</p>	
<p>55. What do you call a woman who prefers to have sex with another woman? (use picture 18)</p> <p>Homosexual, lesbian 2 Dyke, other derogatory term 1 Don't know/incorrect answer 0</p> <p><i>N.B. if they respond with a derogatory term use the prompt if they then use the correct term score 2.</i> <i>PROMPT: Do you know the proper word?</i></p> <p><i>Comments:</i> _____</p>	

Item	Score
56. What do you call a person who likes to have sex with both men and Women?	
Bisexual, bi,	2
Other derogatory term	1
Don't know/incorrect answer	0
N.B. if they respond with a derogatory term use the prompt if they then use the correct term score 2.	
PROMPT: Do you know the proper word?	
<i>Comments:</i> _____	

Total Score

Section 8: Safe Sex Practices

Item	Score
57. In which of these pictures could a woman get pregnant? Points to the picture of sexual intercourse Don't know/incorrect answer	(use picture 19) 2 0
<i>Comments:</i> _____	
58. Sally and Peter are boyfriend and girlfriend. They do not want to have a baby yet. What should they do? Not have sexual intercourse, use contraception when they have sexual intercourse, suggests a type(s) of contraception they could use, kiss, cuddle, not have vaginal sex Peter withdraws his penis before he ejaculates or other similar description Don't know/incorrect answer	(use picture 20) 2 1 0
<i>Comments:</i> _____	
59. In which of these pictures could a person catch a sexually Transmitted infection (STI). Points to the picture of sexual intercourse Don't know/incorrect answer	(use picture 19) 2 0
<i>Comments:</i> _____	
60. Sally and Peter don't want to catch a sexually transmitted infection, STI. Is there something they can do, before having sexual intercourse? Not have sexual intercourse, put on a condom, Durex, Rubber, female condom/femi-dom, other colloquial terms Don't know/incorrect answer	 2 0
<i>Comments:</i> _____	
61. How would Peter know if he had a sexually transmitted infection? Sores on their genitals, unusual discharge, pain when urinating, itching, positive test results from a Dr/clinic Don't know/incorrect answer	 2 0
<i>Comments:</i> _____	

Total Score

Section 9: Sex and the Law

Item	Score
<p>62. If a person shows their private parts in a public place, could they get into trouble with the police? (use picture 21)</p> <p>Yes 2 No 0</p> <p><i>Comments:</i> _____</p>	
<p>63. At what age are people legally allowed to have <i>sex</i>?</p> <p>16 and above 2 Don't know/incorrect Answer 0 <i>PROMPT: Legally means it is okay with the rules or laws of the United Kingdom/UK.</i></p> <p><i>Comments:</i> _____</p>	
<p>64. What does the word 'consent' mean?</p> <p>Saying yes without being forced, saying yes because you want to 2 Agreeing to do something 1 Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>If the young person does not know what 'consent' means offer the following explanation before asking the next question.</p> <p style="text-align: center;"><i>"Consent means saying yes without being forced (pause), saying yes because you want to"</i></p>	
<p>65. When can't an adult consent to having <i>sex</i>?</p> <p>When they are unconscious, when they are out of it, when they don't understand what they are being asked to do when drugged, when drunk, 2 Any one of the above 1 Don't know/incorrect answer 0 <i>PROMPT: Anything else?</i></p> <p><i>Comments:</i> _____</p>	
<p>66. If a person shows the private parts of their body to someone they don't know, could the person get into trouble with the police?</p> <p>Yes 2 Don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	

Item	Score
67. If a person has <i>sex</i> with an animal, could the person get into trouble with the police?	
Yes	2
No, don't know/incorrect answer	0
<i>Comments:</i> _____	
68. What is it called when a person is forced to have <i>sex</i> with someone?	
Sexual assault, rape	2
Don't know/incorrect answer	0
<i>Comments:</i> _____	
69. If a man forces a woman to have <i>sex</i> with him, could he get into trouble With the police?	
Yes	2
Don't know/incorrect answer	0
<i>Comments:</i> _____	
70. If two people agree to have <i>sex</i> and they do, is this called 'rape'?	
No	2
Yes	0
<i>Comments:</i> _____	
71. If a man does this, could he get into trouble with the police?	(use picture 22)
Yes	2
No, don't know/incorrect answer	0
<i>Comments:</i> _____	
72. If a person has <i>sex</i> with, or touches their brothers or sisters in a sexual way, could the person get into trouble with the police?	
Yes	2
No, don't know/incorrect answer	0
<i>Comments:</i> _____	

Item	Score
<p>73. If a mother or father has <i>sex</i> with, or touches their children in a sexual way, could the mother or father get into trouble with the police?</p> <p>Yes 2 No, don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>Introduce Mary and John (use Picture 23)</p> <p>[Point to the young woman when you say the word 'Mary' and point to the young man when you say the word 'John']</p> <p>This is Mary and this is John, they are boyfriend and girlfriend. (Pause) Mary is 16 years old and John is 16 years old. (Pause)</p>	
<p>74. If John shares naked pictures of Mary with his friend Brian, could John get into trouble with the police? (use picture 24)</p> <p>Yes 2 No, don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	
<p>75. If John puts photographs of his private parts onto his social networking page, could he get in trouble with the police? (use picture 25)</p> <p>Yes 2 No, don't know/incorrect answer 0</p> <p><i>PROMPT: Social networking pages such as Facebook, Twitter, Bebo, My Space and Hi5.</i></p> <p><i>Comments:</i> _____</p>	
<p>76. If an adult shows a person under 18 years old (like John) pictures or videos of people doing sexual things, could the adult get in trouble with the police? (use picture 26)</p> <p>Yes 2 No, don't know/incorrect answer 0</p> <p><i>Comments:</i> _____</p>	

Total Score

Section 10: Additional Information

1. What does the word 'pornography' or 'porn' mean?

Answer: _____

If the young person does not know or provides an incorrect answer above, provide the following explanation before moving on to the other questions.

"Pornography is a picture, movie, or video showing naked people or sex, made to get a person sexually excited"

2. Have you looked at pornography/porn?

Yes/No

If the young person answers 'No' skip to question 6.

(Please circle)

3. How old were you the first time you looked at pornography/porn?

4. "Where have you looked at pornography/porn?"

Read out the options below to prompt the young person to respond, tick ✓ all that apply.

Movies

DVD's

Magazines

Internet

Other: please state _____

5. How often do you look at pornography/porn?

Read out the options below to prompt the young person to respond, tick ✓ all that apply.

Every Day

Once a week

Once a month

Hardly ever

6. Have you had any relationships and sex education?

If they answer 'No' then go to question 8.

Yes/No

(Please circle)

7. Where did you get your relationships and sex education from?

Read out the options below to prompt the young person to respond, tick ✓ all that apply.

- | | | | | | |
|---|--------------------------|------------|--------------------------|---------|--------------------------|
| A teacher/lessons at school | <input type="checkbox"/> | in Science | <input type="checkbox"/> | in PHSE | <input type="checkbox"/> |
| A counsellor/therapist/
other professional | <input type="checkbox"/> | | | | |
| Your parents | <input type="checkbox"/> | | | | |
| Your brothers/sisters | <input type="checkbox"/> | | | | |
| Your friends | <input type="checkbox"/> | | | | |
| Other (please state) | <input type="checkbox"/> | | | | |

8. Where have you learnt the most about sex?

Answer:

Say to the young person

“Thank you for answering these questions.

Remember that everything we have talked about will remain private”

“Do you feel okay?”

“Do you have any questions?”

Knowledge Profile

Today's date: _____

Young Person's Identification Number: _____ Age: _____

School year: _____ Ethnic Origin: _____

Name of Organisation: _____

Name of Examiner: _____

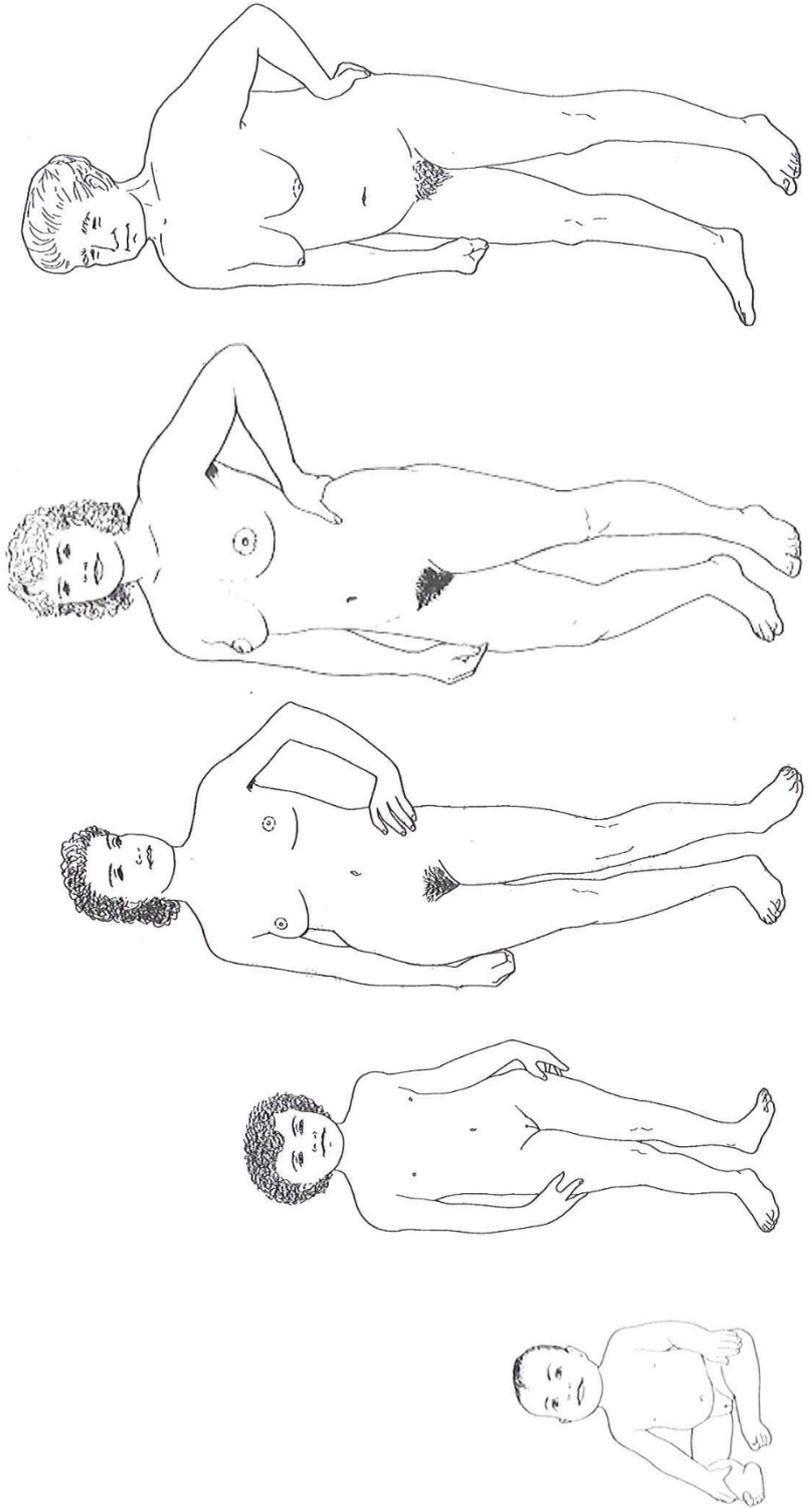
Transfer the total score from each section to the table below.

Section	Maximum Score	Respondents Score
1. Parts of the Body	26	
2. Public and Private Places	12	
3. Puberty	12	
4. Masturbation	12	
5. Relationships	14	
6. Social-Sexual Boundaries	16	
7. Sexuality	20	
8. Safe Sex Practices	10	
9. Sex and the Law	30	
Total	152	

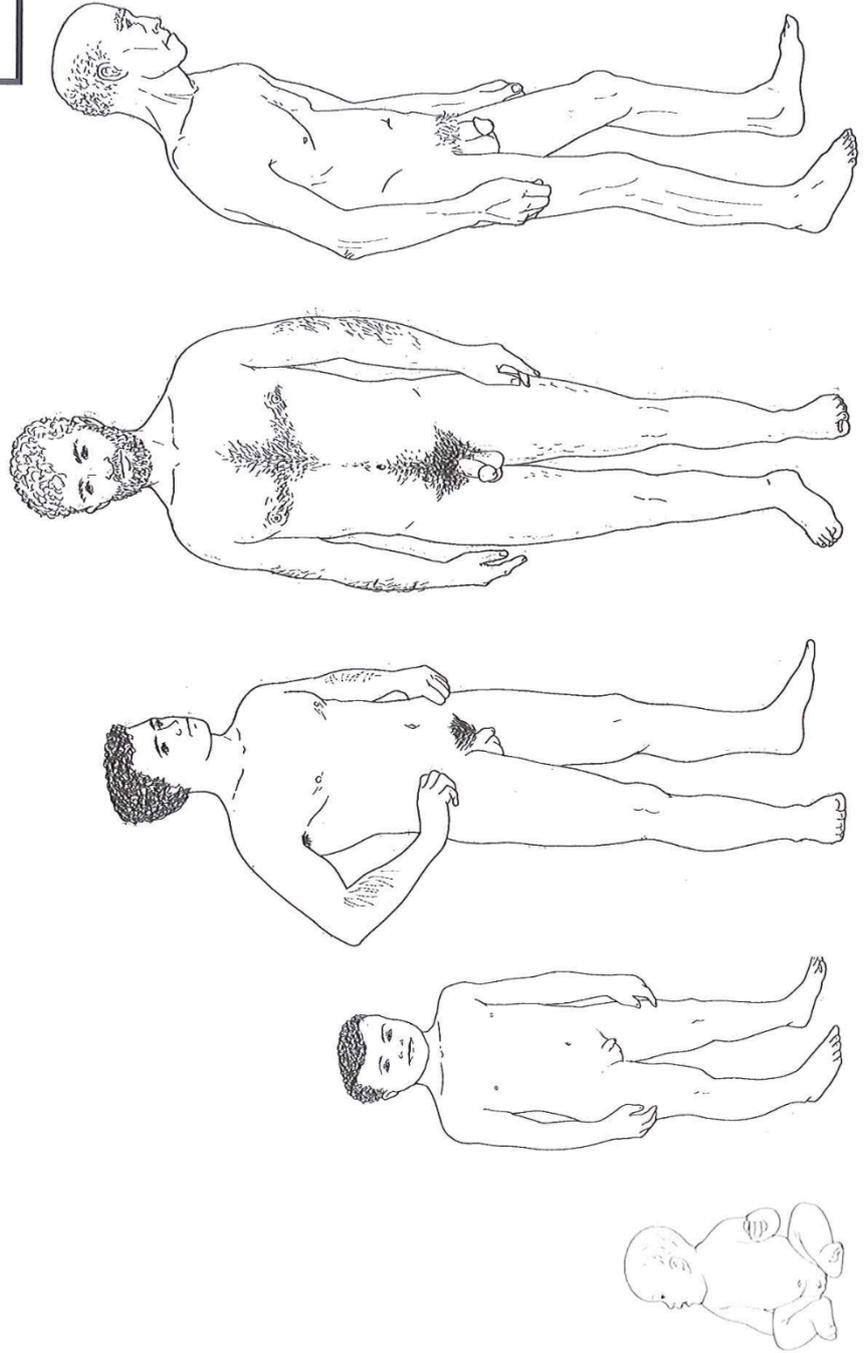
This profile indicates the areas where the respondent may have deficits in their sexual knowledge e.g. the distance between the maximum score and the respondents score.

These discrepancies in score combined with the comments recorded in the answer section of the test booklet indicate the level of intervention required and will help target priorities for educational and behavioural interventions.

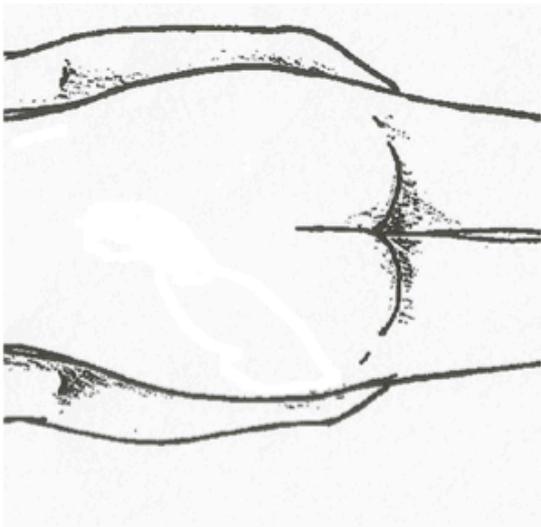
1



2



3



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4



5

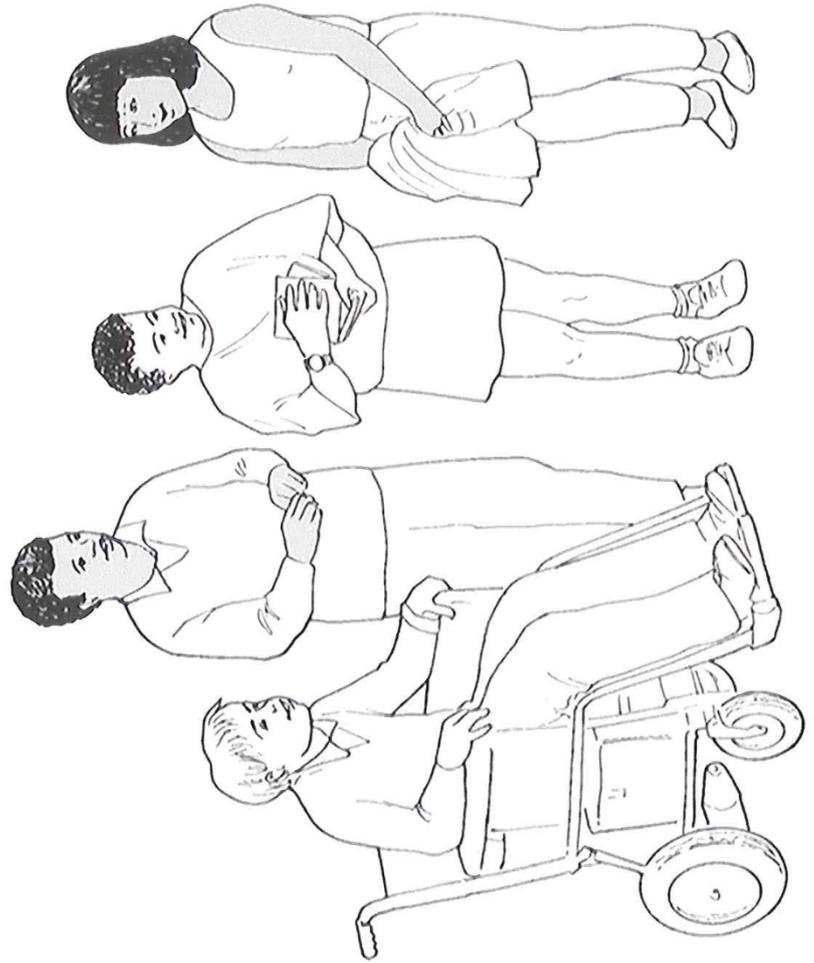


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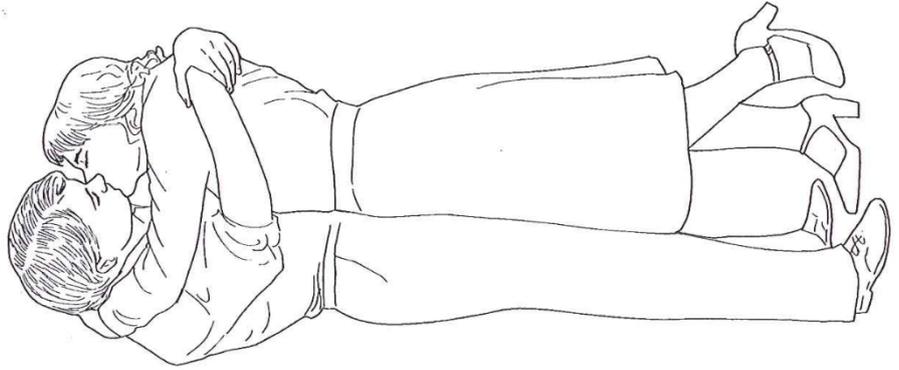


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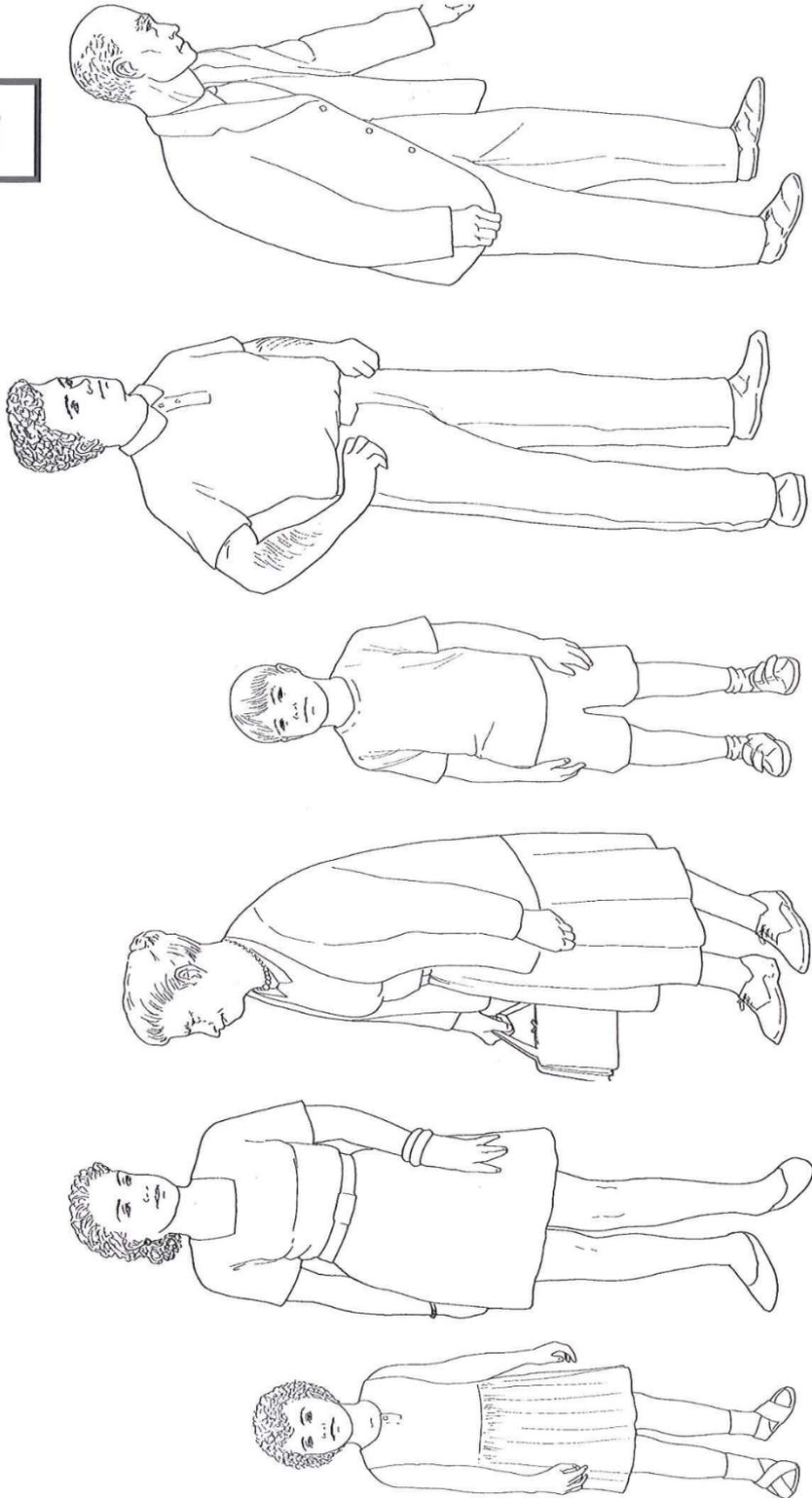




9



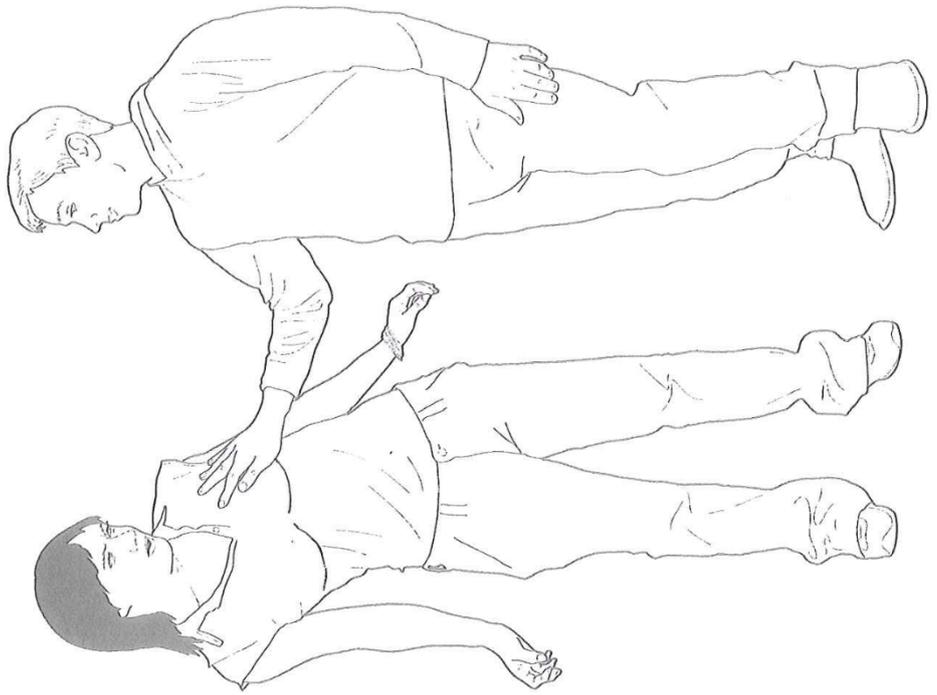
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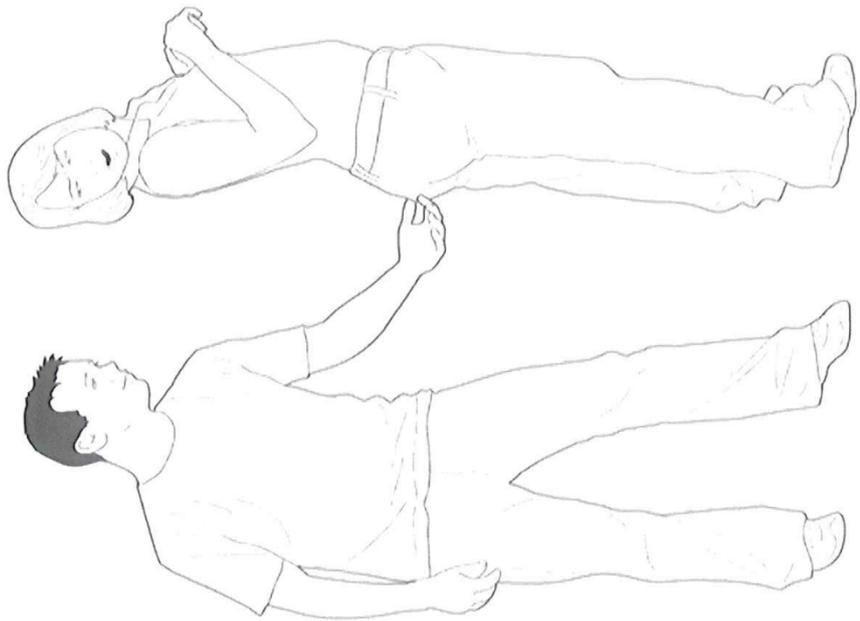
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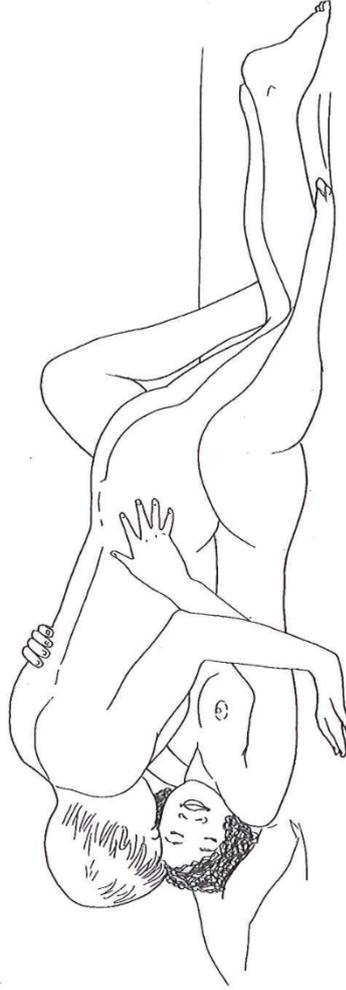
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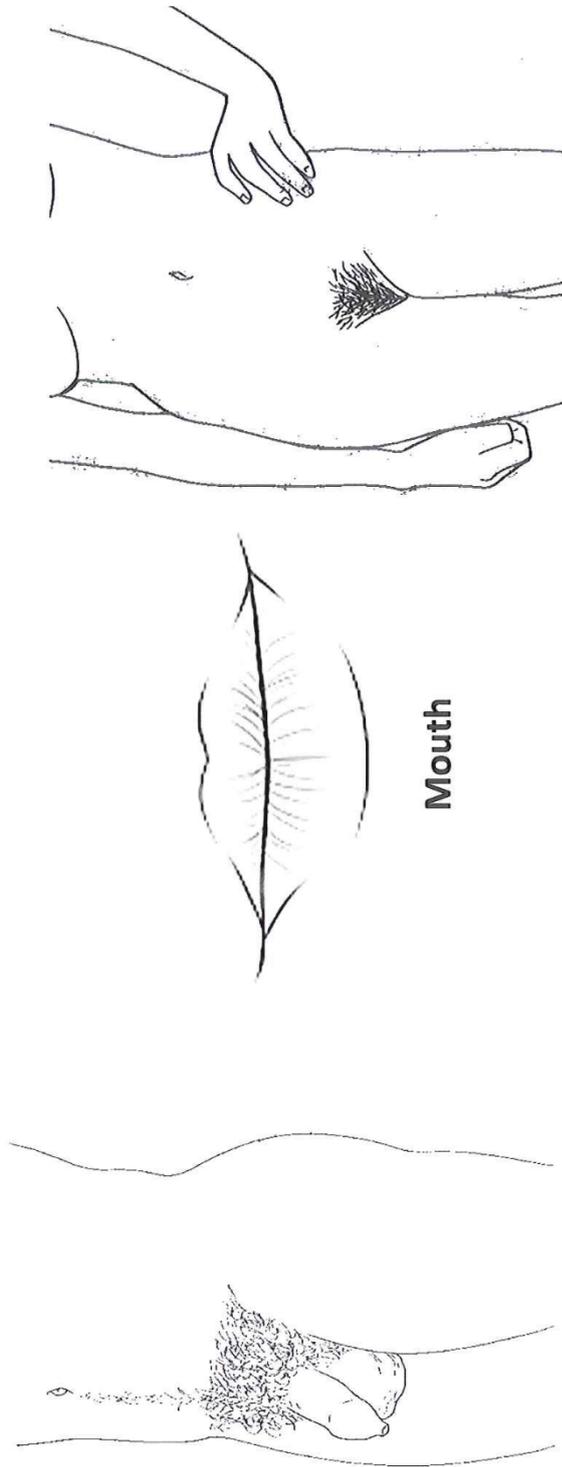
13



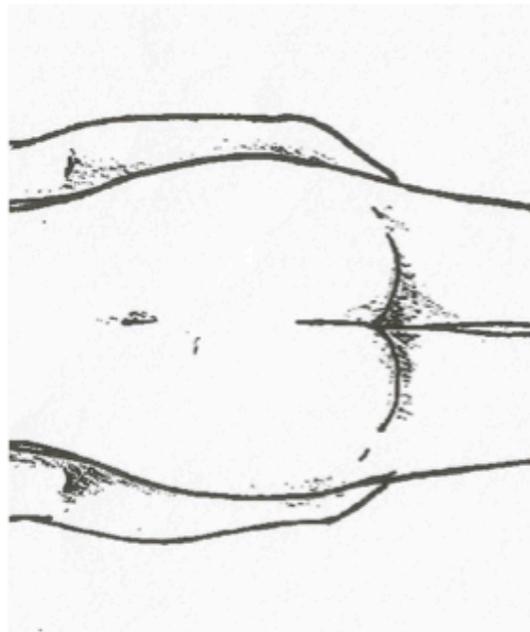
14



15



Mouth



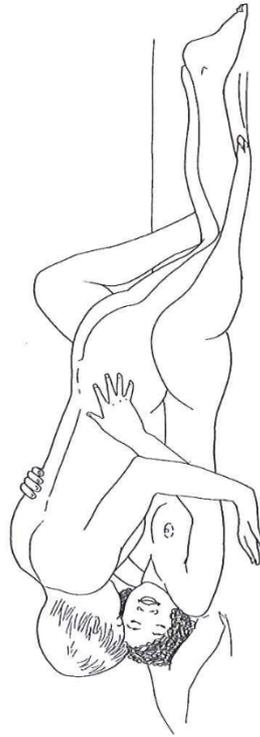
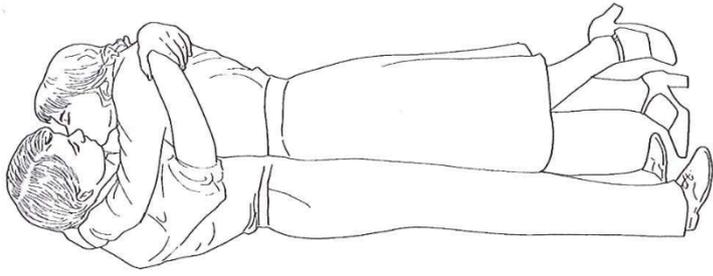
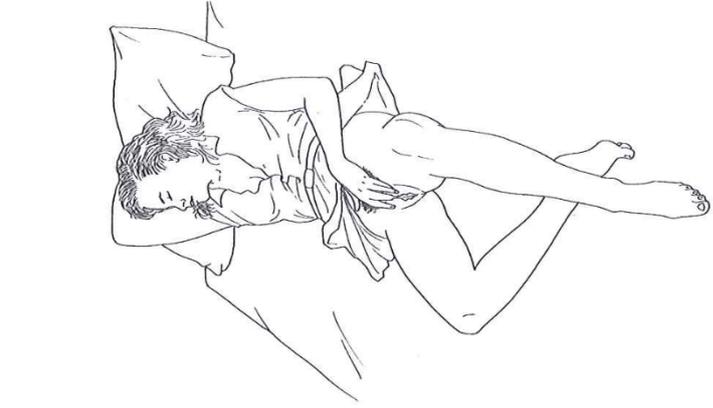
Adapted from 'Picture Yourself' - Social and Sex Education for People with LD' by Hilary Dixon and Ann Craft, Me-and-Us Publications, 2004; and 'The Assessment of Sexual Knowledge: A sexual knowledge and assessment tool for people with ID' Butler, Leighon & Galas (2003). Copyright © State of Victoria, Australia. Used, adapted and reproduced with permission of the Secretary to the Department of Health & Human Services. Reproduction and other uses comprised in the copyright are prohibited without permission.

17



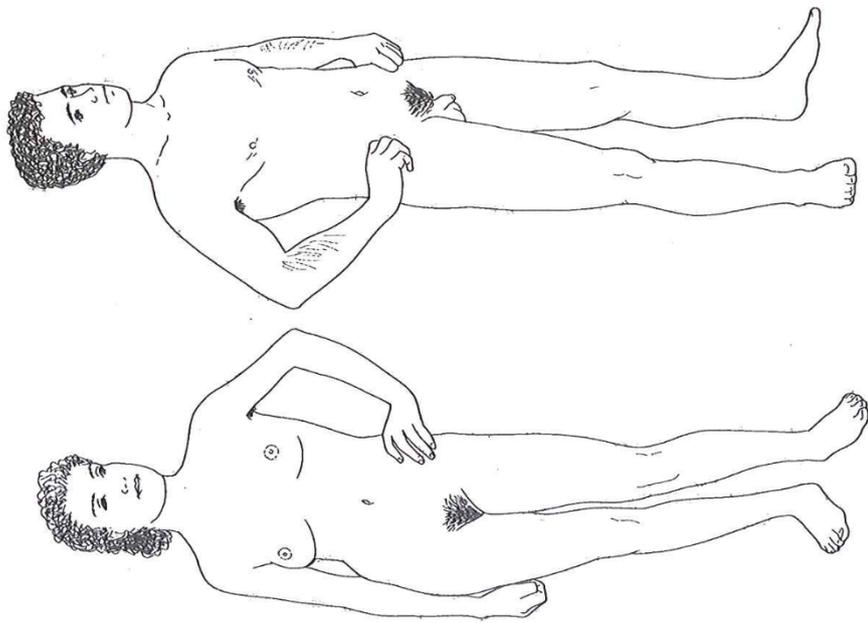


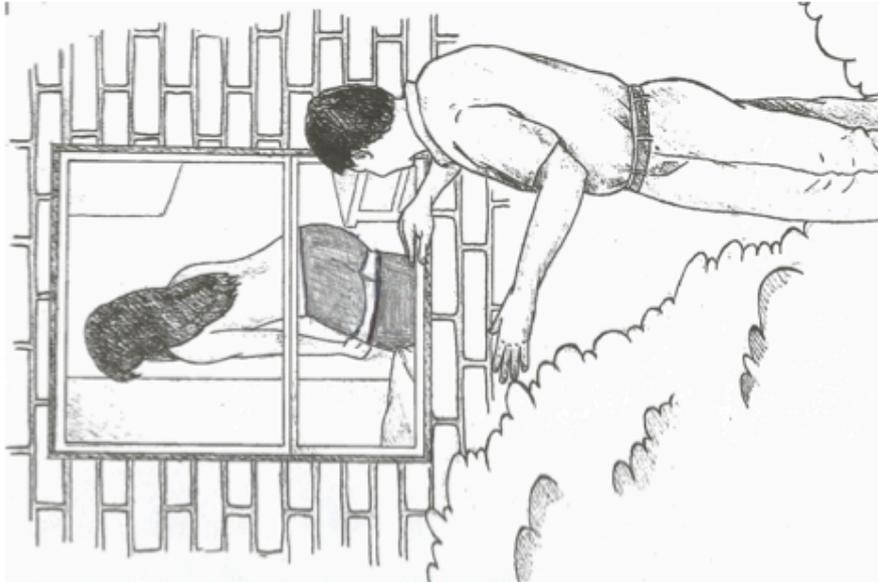
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20

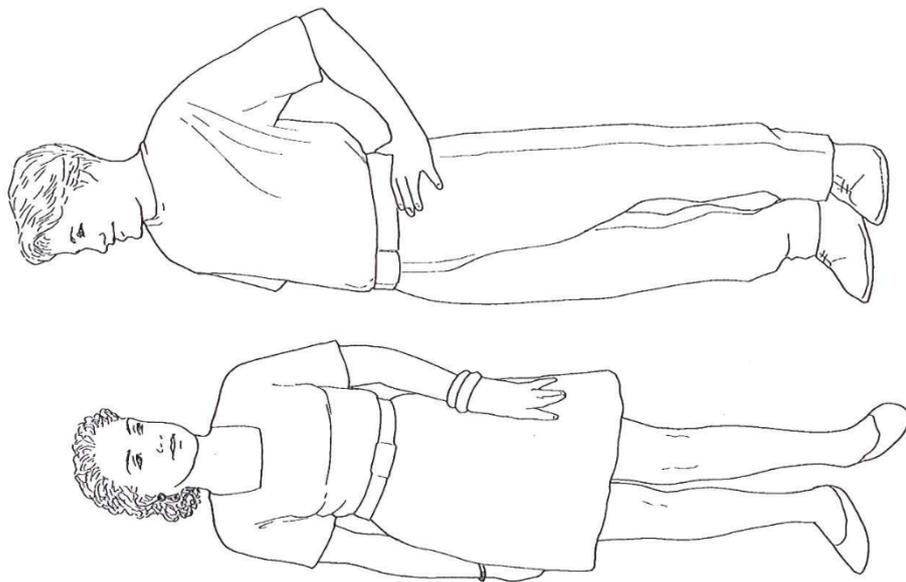




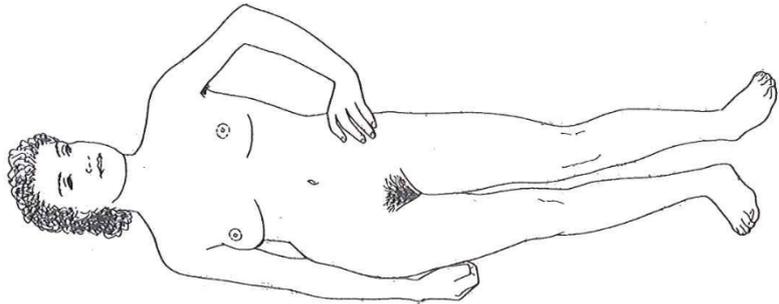
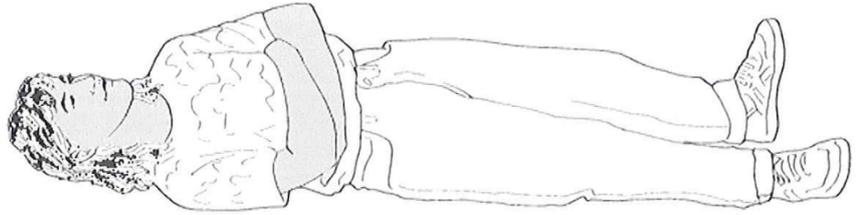
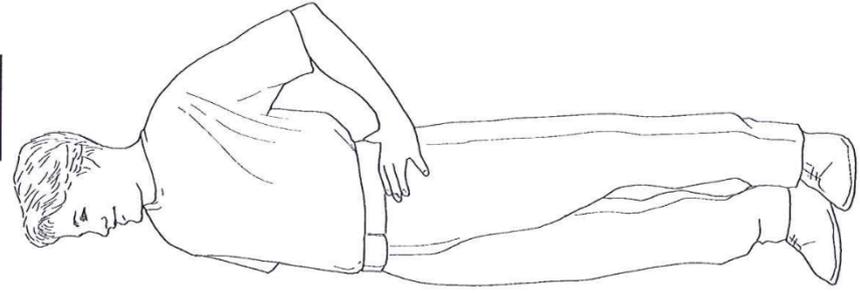


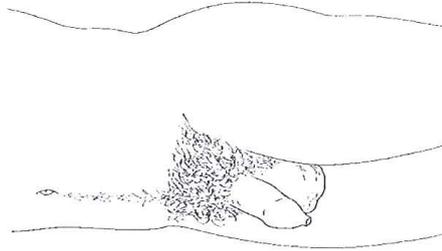
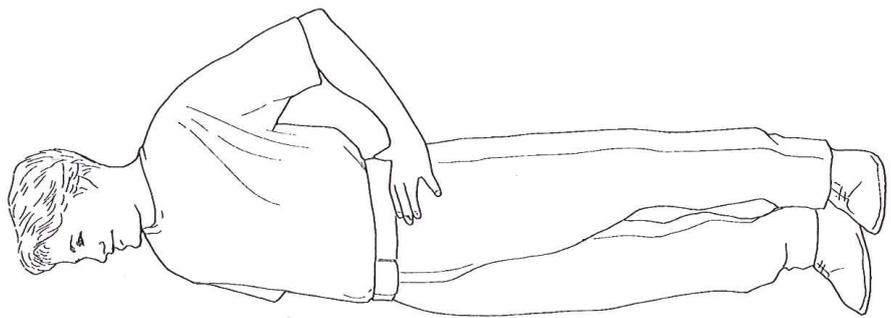
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23

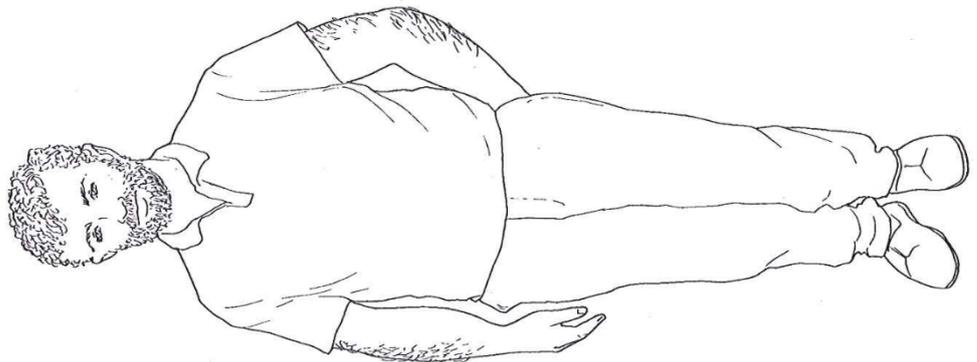
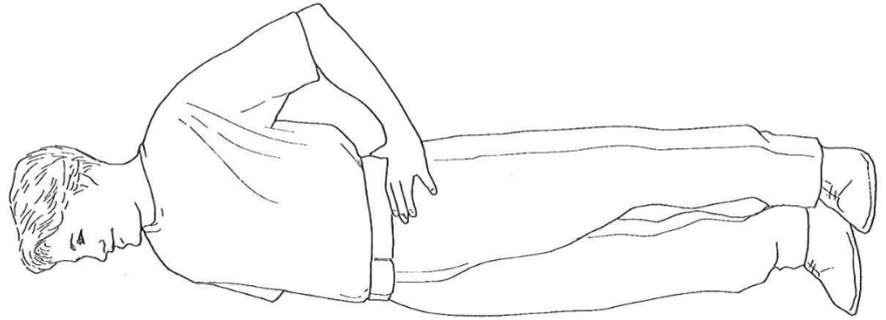


24





26



Appendix 19: ASKA Face Validity Evaluation Form

Dear Practitioner

Please complete this form with [the ASKA questionnaire and supporting picture book to hand](#). Once you have read each of the items under each scale heading, and where relevant viewed the corresponding picture, please rate the relevance of the item to that section (sub-scale) using the following ratings:

1 (not relevant) 2 (somewhat relevant) 3 (relevant) 4 (very relevant)

Assessment of Sexual Knowledge in Adolescents (Aged 12-17)

Aim 1:

To provide an in-depth examination of sexual knowledge related to risk of harmful sexual behaviour in adolescents with and without learning disabilities, with a view to informing treatment in sex and relationship matters.

Aim 2:

To measure sexual knowledge in adolescents with a view to providing education which promotes healthy sexual behaviours and relationships.

Scale	Not relevant 1		Somewhat relevant 2		Relevant 3		Very Relevant 4	
	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2
Section 1: Parts of the Body								
Which of these people is most like you?								
What are these called? [Point to the HANDS]								
What is this called? [Point to the PENIS]								
What does a man use his <i>penis</i> for?								
What are these called? [Point to the TESTICLES]								
Why does a man have <i>testicles</i> ?								
What is this called? [Point to the BOTTOM]								
What do people use their <i>bottoms</i> for?								
What is this called? [Point to the MOUTH]								
What are these called? [Point to the BREASTS]								

	Not relevant		Somewhat relevant		Relevant		Very Relevant	
	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2
What does a woman use her <i>breasts</i> for?								
What is this called? [Point to the VAGINA]								
What does a woman use her <i>vagina</i> for?								
Section 2: Public and Private Parts and Places								
Point to the private parts of a man's body?								
Point to the private parts of a woman's body?								
Point to a picture of a private place.								
What sort of things can people do in a private place?								
Point to a picture of a public place								
What sort of things can people do in a public place?								
Section 3: Puberty								
Point to the teenagers.								
Point to the children.								
Point to the adults.								
What happens to a boy's body when he changes to a young man?								
What happens to a girl's body when she changes to a young woman?								
What is it called when the penis looks like this?								
Section 4: Masturbation								
What is this boy doing?								
Where is it okay for a boy to do this, <i>masturbate</i> ?								
What is this girl doing?								

	Not Relevant 1		Somewhat relevant 2		Relevant 3		Very Relevant 4	
	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2
Where is it okay for a girl to do this, <i>masturbate</i> ?								
What does it mean to have an orgasm or come?								
What is the white sticky stuff that comes out of a man's penis called?								
Section: 5 - Relationships:								
What kind of relationship do these people have?								
What sort of things can people do with friends?								
What kind of a relationship do these people have?								
What sort of things can people do with their girlfriend/boyfriend?								
This is a picture of a young woman. [Point to the young woman] Point to the person most likely to be her boyfriend.								
This is a picture of an old man. [Point to the elderly man] Point to the person most likely to be his girlfriend.								
Point to the people who could be married.								
Section 6: Social-Sexual Boundaries								
Who is allowed to touch the private parts of your body?								
Who can you tell if someone touches the private parts of your body and you don't want them too?								
What is happening here?								
Is this an okay or not okay way of touching?								
What is happening here?								
Is it okay to touch someone like this?								

	Not Relevant 1		Somewhat relevant 2		Relevant 3		Very Relevant 4	
	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2
Social-Sexual Boundaries Cont.								
Seth likes Jane but Jane does not like Seth, is it okay for Seth to touch Jane if she does not want to be touched?								
Can a person say 'NO' to someone who wants to kiss them or touch them in a sexy way?								
Section 7: Sexuality								
What is happening in this picture?								
What happens to a woman's body when she feels sexually aroused/turned on?								
What happens to a man's body when he feels sexually aroused/turned on?								
Where do people usually have <i>sexual intercourse</i> ?								
What sexy things can you do with someone without having <i>sexual intercourse</i> ?								
What is it called when a person puts their mouth on another person's penis or vagina?								
What is it called when a man puts his penis in another person's bottom?								
What do you call a man who prefers to have sex with another man?								
What do you call a woman who prefers to have sex with another woman?								
What do you call a person who likes to have sex with both men and Women?								

	Not Relevant 1		Somewhat relevant 2		Relevant 3		Very Relevant 4	
	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2
Section 8: Safe Sex Practices								
In which of these pictures could a woman get pregnant?								
Sally and Peter are boyfriend and girlfriend. They do not want to have a baby yet. What should they do?								
In which of these pictures could a person catch a sexually Transmitted infection (STI).								
Sally and Peter don't want to catch a sexually transmitted infection, STI. Is there something they can do, before having sexual intercourse?								
How would Peter know if he had a sexually transmitted infection?								
Section 9: Sex and the Law								
If a person shows their private parts in a public place, could they get into trouble with the police?								
At what age are people legally allowed to have <i>sex</i> ?								
What does the word 'consent' mean?								
When can't an adult consent to having <i>sex</i> ?								
If a person shows the private parts of their body to someone they don't know, could the person get into trouble with the police?								
If a person has <i>sex</i> with an animal, could the person get into trouble with the police?								
What is it called when a person is forced to have <i>sex</i> with someone?								

	Not Relevant 1		Somewhat relevant 2		Relevant 3		Very Relevant 4	
	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2	Aim 1	Aim 2
Sex and the Law Cont.								
If a man forces a woman to have <i>sex</i> with him, could he get into trouble with the police?								
If two people agree to have <i>sex</i> and they do, is this called 'rape'?								
If a man does this, could he get into trouble with the police?								
If a person has <i>sex</i> with, or touches their brothers or sisters in a sexual way, could the person get into trouble with the police?								
If a mother or father has <i>sex</i> with, or touches their children in a sexual way, could the mother or father get into trouble with the police?								
If John shares naked pictures of Mary with his friend Brian, could John get into trouble with the police?								
If John puts photographs of his private parts onto his social networking page, could he get in trouble with the police?								
Of an adult shows a person under 18 years old (like John) pictures or videos of people doing sexual things, could the adult get in trouble with the police?								

Thank you for your help.

Appendix 20: Data Capture Sheets

Data Capture Sheet for Assessment of Sexual Knowledge in Young People (HSB Sample)

Organisation Details

Name of Organisation:.....

Name of Worker(s):.....

Contact Telephone Number:.....

Date:.....

Data Capture Sheet for Assessment of Sexual Knowledge in Young People - (HSB Sample) Cont.

Young Person's Details

Young person's ID number.....Age:.....

Ethnic Origin:.....School year.....

Intellectual Ability

Has there been a formal diagnosis of Intellectual Disability? (please circle) Yes/No

Where available, please provide full-scale IQ score:.....

Date tested:.....

Test used to assess full scale IQ.....

Where IQ score not available, please circle relevant category of Intellectual Disability:

Borderline (IQ is 70-79) Mild (IQ is 50-69) Moderate (IQ is below 50)

Severe (IQ is below 35)

Details of Developmental or Behavioural Diagnosis (please state:)

.....

Statement of Educational Need (SEN)

If they have a statement of educational need please provide details of their main needs:-

.....

Sexually Problematic Behaviour

Please tick all applicable boxes for all incidents of previous sexually problematic behaviours

Type of behaviour(s):

Contact & Non-penetrative	Non-Contact	Rape	Electronic Media Related	Animal Related	Grooming	Coercing somebody else to do sexual things
---------------------------	-------------	------	--------------------------	----------------	----------	--

Other (please state):.....

.....

Please give brief details of the behaviour(s):.....

.....

.....

Number of Victims (please state):.....

Relationship to victim (circle all that apply):

Familial Abuse

Extra-familial Abuse

Abuse against a stranger

Victim(s) Age:

Child victim (victim is aged 12 years or under and is 3 or more years younger than yp)

Peer-aged victim (victim within 3 years of yp's own age)

Adult victim (victim aged 18 years or older and more than 3 years older than yp)

Other: Please state ages of yp at time of incident(s)

.....& victim(s).....

Victim(s) sex: (please circle)

Male

Female

Was the victim more vulnerable than the young person? (E.g. less physically or cognitively able): Yes/No

Ethnicity(s) of victim(s): (please state).....

Intervention Details:

Has the young person had any form of Sex Education? Yes/No

Was this pre or post offence? Pre / Post

Date this was completed (if known).....

Where was this provided?.....

Number of hours completed.....

Did it include the following? (please tick):-

Parts of the Body Public and Private Places Puberty Masturbation
Relationships Social-Sexual Boundaries Sexuality Safe Sex Practices
Sex and the Law Pornography

What other areas of Sex Education were covered? (not mentioned above)

.....

Was the programme adapted for young people with learning disabilities?

Yes / No / Unknown

Has the young person been a victim of harmful sexual behaviour? (please circle)

Yes / No / Unknown

Contact Yes/No

Non-contact Yes/No

Has the young person been exposed to a known sex offender? (please circle)

Yes / No / Unknown

Has the young person been exposed to sexually explicit material? (please circle)

Yes / No / Unknown

Other (please state)

.....
.....
.....

Thank you for taking time to complete this form, please return this form, with completed questionnaire to:

Samantha Richards, SWAAY, PO Box 2929, Earley, Reading, Berkshire RG6 7XQ.

Data Capture Sheet for Assessment of Sexual Knowledge in Young People – (School Based Sample)

Organisations Details

School/College Name:.....

Name of Staff Member Completing this Form:

.....

Contact Telephone Number:.....

Date:.....

Data Capture Sheet for Assessment of Sexual Knowledge in Young People – (School Based Sample) Cont.

Young Person’s Details

Young Person’s Identification Number:.....Age:.....

Ethnic Origin:.....School year.....

Intellectual Ability

Has there been a formal diagnosis of Intellectual Disability? (please circle) Yes/No

Where available, please provide full-scale IQ score:.....

Date tested:.....

Test used to assess full scale IQ:.....

Where IQ score not available, please circle relevant category of Intellectual Disability:

Borderline (IQ is 70-79) Mild (IQ is 50-69) Moderate (IQ is below 50)

Details of Developmental or Behavioural Diagnosis (please state):.....

.....
.....

Statement of Educational Need (SEN)

If they have a statement of educational need please provide details of their main needs:-

.....
.....
.....

Sex Education

Has the young person had any form of Sex and Relationships Education?

Yes/No

Date this was completed (if known).....

Where was this provided?

.....

Number of hours completed.....

Did it include the following? (please tick):-

Parts of the Body Public and Private Places Puberty Masturbation
Relationships Social-Sexual Boundaries Sexuality Safe Sex Practices Sex
and the Law Pornography

What other areas of Sex Education were covered? (not mentioned above).....

.....
.....

Thank you for taking time to complete this form

Please return this form, with completed questionnaires to:

Samantha Richards, SWAAY, PO Box 2929, Earley, Reading, Berkshire RG6 7XQ.

Appendix 21: Ethical Approval for the Study



Health Research Authority

NRES Committee East Midlands - Nottingham 2
Royal Standard Place
Nottingham
NG1 6FS

Telephone: 0115 8839695

30 June 2014

Professor Kevin Browne
Division of Psychiatry and Applied Psychology
School of Medicine
University of Nottingham
Yang Fujia Building, Jubilee Campus
Wollaton Road, Nottingham
NG8 1BB

Dear Professor Kevin Browne

Study title:	Assessing Sexual Knowledge in Young People With and Without Intellectual Disabilities: is Sexual Knowledge Related to Harmful Sexual Behaviour?
REC reference:	14/EM/1023
Protocol number:	14054
IRAS project ID:	153773

The Research Ethics Committee reviewed the above application at the meeting held on 23 June 2014. Thank you for attending to discuss the application, along with Ms Samantha Richards.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the REC Manager, Ms Liza Selway at NRESCommittee.EastMidlands-Nottingham2@nhs.net

Ethical opinion

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

1. With regard to the parent/guardian and 16-17+years information sheets, the third sentence in the section 'What if there is a problem' must be re-worded to 'If you remain unhappy and wish to complain formally, you can do this by contacting the university's complaints depart <insert contact details>'.
2. The statement on disclosure in the information sheet for 'under 16s and under 18s with ID should be included in all information sheets.
3. A tick box must be added to the bottom of consent and assent forms stating 'please tick this box if you wish to receive a summary of the study results'.
4. A sentence must be added to the parent/guardian information sheet stating, 'If you would like to see a copy of the questionnaire and images in advance, please do get in touch'.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations

involved in the study in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated

Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on question 2 of the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett (catherineblewett@nhs.net), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS Sites

The favourable opinion applies to all NHS sites taking part in the study taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see “Conditions of the favourable opinion” below).

Summary of discussion at the meeting

Care and protection of research participants; respect for potential and enrolled participants’ welfare and dignity

Given the subject matter members were concerned the questions may raise some uncertainties for young people, and they may wish to discuss them further or ask questions. They asked whether provision had been made for this. *The researcher stated they would not be there in an educational role, rather they would be assessing the current level of knowledge these young people had, mainly in the form of yes and no answers. They confirmed there would be provision at the end of the session for any comments or questions. If the questions were not appropriate for the researcher to answer they would be passed to the therapist or teacher to follow up. They added the outcomes of the study should help schools to identify knowledge gaps and inform their sexual education programmes.* The Committee accepted this, stating it was important young people were not left confused and with unanswered questions.

Members commented the Chief Investigator was not an appropriate point of contact for complaints, given she is not independent of the research. With regard to the parent/guardian and 16-17+years information sheets, the third sentence in the section ‘What if there is a problem’ should be re-worded to ‘If you remain unhappy and wish to complain formally, you can do this by contacting the university’s complaints department <insert contact details>’.

Informed consent process and the adequacy and completeness of participant information

Members queried whether the information sheet for patients with intellectual difficulties (ID) was too wordy. *The researchers confirmed they had originally created an information sheet and consent form that was simpler and more pictorial, however, this had not fulfilled the University of Nottingham's requirements for sponsorship approval. They added a staff member who worked with these patients regularly would sit with them to talk through the information and ensure they understood the terminology.*

With regard to the parent information sheet, examples of the sexual pictures (line drawings) that would be used with children had been included originally, however, the university had felt this was inappropriate. The researchers added parents would be asked to read the information sheet and consent form in advance, and if they wished to see the images these could be provided. The images are commonly used in schools and have been obtained from a teaching resource used for those with intellectual difficulties (Picture Yourself).

Members stated the safeguarding and disclosure statement within the information sheet for under 16s and under 18s with ID should be included in all information sheets.

Members commented the application indicates there is a section on the assent and consent forms for participants to indicate whether they would like a copy of the study results, but members could not see this. It was stated a tick box should be added to the consent and assent forms so that participants can indicate whether they would like to receive this.

Suitability of the applicant and supporting staff

The Committee asked whether the researcher currently worked at the SWAAY Child and Adolescent Services. *The researchers informed that although Mr Richards used to work there she didn't any longer.* Members were content there was no conflict.

Suitability of supporting information

Members commented the answers to some of the questions did not appear accurate e.g. the implication that the vagina is used for urination. *The researchers accepted this, stating the questions and answers had been developed with a panel of experts, keeping in mind the possible answers that may be received from young people with intellectual difficulties.*

Other general comments

The Committee asked whether the involvement of teachers in explaining the study and assisting with questionnaires would cause resource issues within the schools. *The researchers informed teachers would explain the study to participants one to one, and would also mail the information to parents at the start of the school year, to tie in with the beginning of the sexual education programme. They added the teachers had been involved with the design of the study documentation, and had committed to participating. There had been discussion about allocating time to do this within a sexual education timeslot at the beginning of the year, or alternatively meeting the children during break times.*

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Letter from sponsor [Sponsor Letter]		27 May 2014
Non-validated questionnaire	1.0	20 May 2014
Non-validated questionnaire	1.0	20 May 2014
Other [HSB Parents-Guardians Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Other [Parent-Guardian Consent & Assent Form Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Other [Debrief Sheet Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Other [ASKAM Information for Administrator Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Other [NHSB Parents-Guardians Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Participant consent form	1.0	20 May 2014
Participant information sheet (PIS)	1.0	20 May 2014
Participant information sheet (PIS)	1.0	20 May 2014
REC Application Form [REC_Form_30052014]		30 May 2014
Research protocol or project proposal	1.0	20 May 2014
Summary CV for Chief Investigator (CI)	1.0	20 May 2014
Summary CV for student	1.0	20 May 2014

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document “After ethical review – guidance for researchers” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments*
- Adding new sites and investigators*
- Notification of serious breaches of the protocol*
- Progress and safety reports*
- Notifying the end of the study*

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: <http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/>

14/EM/1023 Please quote this number on all correspondence

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

With the Committee's best wishes for the success of this project.

Yours sincerely



Dr Martin Hewitt

Chair

E-mail: NRESCommittee.EastMidlands-Nottingham2@nhs.net Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments

“After ethical review – guidance for researchers”

Copy to: Mr Paul Cartledge

Ms Natalie Booth, Research and Innovation, North Bristol NHS Trust

NRES Committee East Midlands - Nottingham 2 Attendance at Committee meeting on 23 June 2014

Committee Members:

<i>Name</i>	<i>Profession</i>	<i>Present</i>
Dr Rosemina Ahmad	Expert Member	Yes
Professor Jayne Brown	Professor of Palliative Care	No
Ms Gill Bumphrey	Clinical Trials Pharmacist	Yes
Miss Shamim Byrne	Gynaecologist/Obstetrician	Yes
Mr Simon Deery	Junior Doctor	No
Dr Frances Game	Consultant Physician	Yes
Mrs Jane Hennebury	Lay Member	Yes
Dr Martin Hewitt (Chair)	Consultant Paediatric Oncologist	Yes
Dr Asam Latif	Research Pharmacist	Yes
Mrs Veronica Lyon	Lay member	Yes
Dr Simon Roe	Consultant Nephrologist	Yes
Dr John Shaw	Lay Member	No
Miss Catherine Shenton	Lay Member	Yes
Mrs Sally Ann Smith	Retired Audit Manager	Yes
Dr Alison Thorpe	Research and Governance Facilitator	No
Ms Margret Vince	Translator	Yes

Also in attendance:

<i>Name</i>	<i>Position (or reason for attending)</i>
Helen Wakefield	REC Manager



Health Research Authority

NRES Committee East Midlands - Nottingham 2

Royal Standard Place

Nottingham

NG1 6FS

Telephone: 0115 883 9440

10 July 2014

Professor Kevin Browne
University of Nottingham
Yang Fujia Building, Jubilee Campus
Wollaton Road, Nottingham
NG8 1BB

Dear Professor Browne,

Study title:	Assessing Sexual Knowledge in Young People With and Without Intellectual Disabilities: is Sexual Knowledge Related to Harmful Sexual Behaviour?
REC reference:	14/EM/1023
Protocol number:	14054
IRAS project ID:	153773

Thank you for your letter of. I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 01 July 2014

Documents received

The documents received were as follows:

Document	Version	Date
IRAS Checklist XML [Checklist_10072014]		10 July 2014
Other [HSB Participant Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [HSB Participant Information Sheet Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [NHSB Participants Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [NHSB Participant Information Sheet Assessing Sexual Knowledge in Young People]	1.1	04 July 2014

Other [HSB Parents-Guardians Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
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Other [NHSB Parents-Guardians Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [Parent-Guardian Consent & Assent Form Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [Participant Consent Form Assessing Sexual Knowledge in Young people]	1.1	04 July 2014

Approved documents

The final list of approved documentation for the study is therefore as follows:

Document	Version	Date
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Evidence of Sponsor Insurance]		27 May 2014
IRAS Checklist XML [Checklist_10072014]		10 July 2014
Letter from sponsor [Sponsor Letter]		27 May 2014
Non-validated questionnaire	1.0	20 May 2014
Non-validated questionnaire [Feedback Capture Sheet Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Non-validated questionnaire	1.0	20 May 2014
Other [ASKAM Information for Administrator Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Other [HSB Participant Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [Parent-Guardian Consent & Assent Form Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [Debrief Sheet Assessing Sexual Knowledge in Young People fv1.0 Date 20.05.14]	1.0	20 May 2014
Other [NHSB Parents-Guardians Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [NHSB Participant Information Sheet Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [HSB Parents-Guardians Information Sheet Under 16's-18's ID Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [HSB Participant Information Sheet Assessing Sexual Knowledge in Young People]	1.1	04 July 2014
Other [Participant Consent Form Assessing Sexual Knowledge in Young people]	1.1	04 July 2014
Other [NHSB Participants Information Sheet Under 16's-18's ID Assessing Sexual Knowledge	1.1	04 July 2014

in Young People]		
REC Application Form [REC Form 30052014]		30 May 2014
Research protocol or project proposal	1.0	20 May 2014
Summary CV for Chief Investigator (CI)	1.0	20 May 2014
Summary CV for student	1.0	20 May 2014
Summary CV for supervisor (student research) [Dr Shihning Chou]		20 May 2014

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor's responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

14/EM/1023 Please quote this number on all correspondence
--

Yours sincerely,

Rebecca Morledge

REC Manager

E-mail: NRESCommittee.EastMidlands-Nottingham2@nhs.net

Copy to: Mr Paul Cartledge

Ms Natalie Booth, Research and Innovation, North Bristol NHS Trust



Appendix 22: Study Information Sheets

Parent/Legal Guardian Information Sheet

Under 16's and under 18's with ID

(HSB Final version 1.1: Date: 04.07.14)

Title of Study: Assessing Sexual Knowledge in Young People

Name of Researcher: Samantha Richards

The young person in your care has been invited to take part in our research study aimed at finding out more about young people's sexual knowledge and effective ways of assessing this. We would like to ask for your consent for the young person to participate in this study. Before you decide, we would like you to understand why the research is being done and what it will involve for the young person. Please take time to read this sheet. Talk to others about the study if you wish. Please call or email the primary researcher using the contact details at the end of this sheet if there is anything that is not clear.

What is the purpose of the study?

Samantha Richards is a Trainee Forensic Psychologist studying for her Doctorate at the University of Nottingham. She is adapting a questionnaire developed to measure sexual knowledge in adults with learning disabilities, to see whether it is a useful measure of sexual knowledge in adolescent males with and without intellectual disabilities who have displayed harmful sexual behaviour. This data will be compared to a sample of UK adolescent males who have no history of harmful sexual behaviour to investigate whether there are any differences in sexual knowledge between these populations.

Why has this young person been invited?

They have been invited to take part because they are an adolescent male with or without a learning disability who has shown harmful sexual behaviours at some point in his life. We are inviting 52 participants like him to take part.

Do they have to take part?

It is up to you to decide whether or not the young person takes part. If you decide they can take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide the young person can take part you are still free to withdraw them at any time and without giving a reason. This will not affect your legal rights.

What will happen to the young person if they take part?

Samantha would like the young person's answers from the questionnaire and some more information about them taken from their file, (e.g. age, intellectual functioning, statement of educational need, *where applicable*, previous sexual experiences, relationship to victim(s), victim(s) age, and any sex education completed). She would also like the young person's feedback on the questionnaire (e.g. was easy or hard to understand, and anything else they may say about the questions and accompanying pictures).

Please note some questions have supporting pictures which include line drawings of naked males and females and some line drawings of sexual behaviours (e.g. masturbation and sexual intercourse); these images are simple in nature and not indecent in any way. They have been adapted from

resources used in sex and relationship education programs for young people and adults with and without intellectual difficulties (*Picture Yourself*, Dixon & Craft, 2002; *Picture Yourself 2*, Dixon, 2004; and the *Assessment of Sexual Knowledge*, Butler, Leighton & Galea, 2003). These pictures have been included to provide the participant with a greater understanding of the questions they relate to. If you would like to see a copy of the questionnaire and images in advance, please do get in touch.

What are the possible benefits of taking part?

We cannot promise the study will help the participant but the information we get from the study may help to find out more about the levels of sexual knowledge in different groups of young people. Also, young people can find completing questionnaires quite difficult. Your information could help Samantha develop an easier questionnaire for young people to use.

What if there is a problem?

If you have any concerns about any aspect of this study, you should ask to speak to the researcher who will do her best to answer your questions. The researchers contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by contacting the university's complaints department; Kevin Browne, Professor of Forensic Psychology & Child Health Director of the Centre for Forensic and Family Psychology, Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham, B25, YANG Fujia Building Jubilee Campus Wollaton Road, Nottingham NG8 1BB. Telephone: 0115 8232210, Email: kevin.browne@nottingham.ac.uk

Will their taking part in the study be kept confidential?

All information which is collected about participants during the course of the research will be kept strictly confidential, stored in a secure and locked office at the researchers place of work, and on a password protected database. Any information about the participant which leaves that office will have the participant's name and address removed (anonymised) and a unique code will be used so they cannot be recognised from it.

All research data will be kept securely for 7 years. After this time the participant's data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain the participant's confidentiality, only members of the research team will have access to the participant's personal data.

Should the young person give information that includes harm to themselves or harm to other people, these details will need to be shared (e.g. with staff or police) to stop any harm to them or other people.

What will happen if they don't want to carry on with the study?

The young person's participation is voluntary and they are free to withdraw at any time, without giving any reason, and without their legal rights being affected. If they withdraw then the information collected so far cannot be erased and this information may still be used in the project analysis.

What will happen to the results of the research study?

If you would like to know what the research finds out, then tick the box on the consent form.

Who is organising the research?

This research is being organised by the University of Nottingham.

Who has reviewed the study?

All research involving young people is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by East Midlands, Nottingham 2 Research Ethics Committee.

Further information and contact details

If you have any questions or would like further information on this study then please talk to:-

Name: Samantha Richards - Trainee Forensic Psychologist,
University of Nottingham

Work Address: SWAAY Child and Adolescent Services, PO Box 2929,
Earley, Reading, Berkshire RG6 7XQ

Work telephone: 0118 926 1010 Email: lwxsjr@nottingham.ac.uk

Or you can contact her supervisor: Professor Kevin Browne Professor of Forensic Psychology; University of Nottingham, B22, Institute of Work, Health and Organisations, Wollaton Road, Nottingham, NG8 1BB. Telephone: 0115 8232210, Fax: 0115 8466625 Email: kevin.browne@nottingham.ac.uk

Participant Information Sheet

Under 16's and under 18's with ID
(HSB Final version 1.1: Date: 04.07.14)

Title of Study: Assessing Sexual Knowledge in Young People

Name of Researcher: Samantha Richards

Sam Richards is a Trainee Forensic Psychologist studying for her Doctorate at the University of Nottingham. Sam is part of a research group who work with young people who show or have shown problematic sexual behaviours. She is using a new questionnaire to see if it is good at measuring sexual knowledge in young people.

Sam would like to find out if it is okay with you if you complete this questionnaire. She also wants to know whether she can use your questionnaire for her study. The information Sam collects will be compared to the information given by young people who have not shown problematic sexual behaviours to see if there are any differences in sexual knowledge.

What information do you want?

1. Sam would like your answers from the questionnaire.
2. Some more information about you (e.g. age, ethnic origin, IQ, statement of educational needs, *if you have one*, your sexual behaviours, others involved in your sexual behaviours and any sex education you have completed). This information will be gained from your file/notes.
3. What you think about the questionnaire (e.g. do you think it was easy or hard to understand?) and anything else you want to say about the questions and pictures.

Will people find out about my information?

If you choose to take part, your questionnaire will be kept private in a locked filing cabinet at Sam's work office. Sam will take your name off it so that no one will know that it is your information.

If you give information that includes harm to yourself or harm to other people, these details will need to be shared (e.g. with staff or police) to stop any harm to yourself or other people.

Do I have to take part?

You do not have to do the questionnaire if you don't want to.

What will happen to me if I take part?

We will first need to have been given written permission from your parent or guardian saying you can take part in the research. You can then give your permission too. There is just one questionnaire to do. Sam would like you to think about the questions carefully and then answer them. She would also like you to say what you think about the questionnaire. It will probably take around 20-30 minutes to do, and you will get help doing it. Some questions also have pictures which include line drawings of naked males and females and some line drawings of sexual behaviours. These pictures are there to help you.

What if I have difficult feelings when completing the questionnaire?

If you feel upset, angry or uncomfortable in any way, you can talk to the person helping you, or you can talk to your therapist or psychologist, or another member of staff. We can try to help you with these feelings.

What do I gain from taking part?

You will have helped Sam to find out more about the levels of sexual knowledge in different groups of young people. Also, young people can find completing questionnaires hard and don't like doing them. Your information could help Sam to make an easier questionnaire for young people to use.

What happens when the research has finished?

If you would like to know what the research finds out, then tick the box on the assent form. You can get an assent form from the person helping you with the questionnaire.

What if I change my mind and don't want my information used for the research anymore?

If you don't want your information to be used in the research anymore, just tell the person who helped you with the questionnaire or your psychologist

or therapist. You have a month to decide whether or not you want your information to be used in the study.

Contact for Further Information

If you have any questions, which you would like to ask about the study, then please talk to the person reading this to you. Or, you can ask to contact Sam to ask these questions yourself. Below are her details.

Name: Sam Richards, Trainee Forensic Psychologist,
University of Nottingham

Work Address: SWAAY Child and Adolescent Services, PO Box
2929, Earley, Reading, Berkshire RG6 7XQ

Work telephone: 0118 926 1010

Email: lwxsjr@nottingham.ac.uk

Participant Information Sheet

16-17+years

(HSB Final version 1.1: Date: 04.07.14)

Title of Study: Assessing Sexual Knowledge in Young People

Name of Researcher: Samantha Richards

We would like to invite you to take part in our research study aimed at finding out more about young people's sexual knowledge and effective ways of assessing this. Before you decide we would like you to understand why the research is being done and what it will involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

What is the purpose of the study?

Samantha Richards is a Trainee Forensic Psychologist studying for her Doctorate at the University of Nottingham. She is adapting a questionnaire developed to measure sexual knowledge in adults with learning disabilities, to see whether it is a useful measure of sexual knowledge in adolescent males with and without intellectual disabilities who have displayed harmful sexual behaviour. This data will be compared to a sample of UK adolescent males who have no history of harmful sexual behaviour to investigate whether there are any differences in sexual knowledge between these populations.

Why have I been invited?

You are being invited to take part because you are an adolescent male with or without a learning disability who has shown harmful sexual behaviours at some point in his life. We are inviting 52 participants like you to take part.

Do I have to take part?

It is up to you to decide whether or not you take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw him at any time and without giving a reason. This will not affect your legal rights.

What will happen to me if I take part?

Samantha would like your answers from the questionnaire and some more information about you (e.g. age, intellectual functioning, statement of educational need, *where applicable*, previous sexual experiences, relationship to victim(s), victim(s) age, and any sex education completed). She would also like your feedback on the questionnaire (e.g. was easy or hard to understand, and anything else they may say about the questions and accompanying pictures).

Please note some questions have supporting pictures which include line drawings of naked males and females and some line drawings of sexual behaviours (e.g. masturbation and sexual intercourse); these images are simple in nature and not indecent in any way. They have been adapted from resources used in sex and relationship education programs for young people and adults with and without intellectual difficulties (*Picture Yourself*, Dixon & Craft, 2002; *Picture Yourself 2*, Dixon, 2004; and the *Assessment of Sexual Knowledge*, Butler, Leighton & Galea, 2003). These pictures have been included to provide the participant with a greater understanding of the questions they relate to.

What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get from the study may help to find out more about the levels of sexual knowledge in different groups of young people. Also, young people can find completing questionnaires quite difficult. Your information could help Samantha develop an easier questionnaire for young people to use.

What if there is a problem?

If you have any concerns about any aspect of this study, you should ask to speak to the researcher who will do her best to answer your questions. The researchers contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by contacting the university's complaints department; Kevin Browne, Professor of Forensic Psychology & Child Health Director of the Centre for Forensic and Family Psychology, Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham, B25, YANG Fujia Building Jubilee Campus Wollaton Road, Nottingham NG8 1BB. Telephone: 0115 8232210, Email: kevin.browne@nottingham.ac.uk

Will my taking part in the study be kept confidential?

We will follow ethical and legal practice and all information about you will be handled in confidence. If you join the study some parts of your school notes, the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office at the researchers place of work, and on a password protected database. Any information about you which leaves that office will have the participant's name and address removed (anonymised) and a unique code will be used so they cannot be recognised from it.

All research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

If you give information that includes harm to yourself or harm to other people, these details will need to be shared (e.g. with staff or police) to stop any harm to yourself or other people.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far cannot be erased and this information may still be used in the project analysis.

What if I have difficult feelings when completing the questionnaire?

If at any time you experience difficult feelings completing the questionnaire you will be asked if you want to take a break and continue at a later time. If you do not want to continue and it is incomplete then the data will not be used for research and therefore shredded. You will be immediately debriefed and will be encouraged to access support from either the person administering the questionnaire, or an identified member of staff. The

debriefing sheet will also contain a help line you can contact should you need further assistance.

What will happen to the results of the research study?

If you would like to know what the research finds out, then tick the box on the consent form.

Who is organising the research?

This research is being organised by the University of Nottingham.

Who has reviewed the study?

All research involving young people is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by East Midlands, Nottingham 2 Research Ethics Committee.

Further information and contact details

If you have any questions or would like further information on this study then please talk to:-

Name: Samantha Richards - Trainee Forensic Psychologist,
University of Nottingham

Work Address: SWAAY Child and Adolescent Services, PO Box 2929,
Earley, Reading, Berkshire RG6 7XQ.

Work telephone: 0118 926 1010 Email: lwxsjr@nottingham.ac.uk

Or you can contact her supervisor:

Professor Kevin Browne Professor of Forensic Psychology; University of Nottingham, B22, Institute of Work, Health and Organisations, Wollaton Road, Nottingham, NG8 1BB. Telephone: 0115 8232210, Fax: 0115 8466625

Email: kevin.browne@nottingham.ac.uk

Parent/Guardian Information Sheet
Under 16's and under 18's with ID
(N-HSB Final version 1.2: Date: 25.09.14)

Title of Study: Assessing Sexual Knowledge in Young People.

Name of Researcher: Samantha Richards

We would like to invite your child to take part in our research study aimed at finding out more about young people's sexual knowledge and effective ways of assessing this. Before you decide we would like you to understand why the research is being done and what it will involve for your child. Please take time to read this sheet. Talk to others about the study if you wish. Please call or email the primary researcher using the contact details at the end of this sheet if there is anything that is not clear.

What is the purpose of the study?

Samantha Richards is a Trainee Forensic Psychologist studying the Forensic Psychology Doctorate at the University of Nottingham. She is adapting a questionnaire developed to measure sexual knowledge in adults with learning disabilities, to see whether it is a useful, measure of sexual knowledge in adolescents with and without learning disabilities.

This data will then be directly compared to a sample of UK adolescents who have a history of harmful sexual behaviour to investigate whether there are any differences in sexual knowledge between these populations.

Why has my child been invited?

Your child has been invited to take part because they are a pupil in one of the schools collaborating in the study and have been proposed as a participant as they are an adolescent with or without a learning disability with no history of harmful sexual behaviour.

Does my child have to take part?

It is up to you to decide whether or not your child takes part. If you do decide they can take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide they can take part you are still free to withdraw your child at any time and without giving a reason. This will not affect your legal rights.

What will happen to my child if they take part?

Samantha would like your child's answers from the questionnaire and some more information about them (e.g. age, ethnic origin, IQ, statement of educational needs, *where applicable* and any sex education completed at school). She would also like your child's feedback on the questionnaire (e.g. was easy or hard to understand, and anything else they want to say about the questions and accompanying pictures).

Please note some questions have supporting pictures which include line drawings of naked males and females and some line drawings of sexual behaviours (e.g. masturbation and sexual intercourse); these images are simple in nature and not indecent in any way. They have been adapted from resources used in sex and relationship education programs for young people and adults with and without intellectual difficulties (*Picture Yourself*, Dixon & Craft, 2002; *Picture Yourself 2*, Dixon, 2004; and the *Assessment of Sexual Knowledge*, Butler, Leighton & Galea, 2003). These pictures have been included to provide your child with a greater understanding of the questions they relate to. If you would like to see a copy of the questionnaire and images in advance, please do get in touch.

What are the possible benefits of taking part?

We cannot promise the study will help your child, but the information we get from the study may help to find out more about the levels of sexual knowledge in different groups of young people. Your school may also use the anonymised data to assess the effectiveness and further inform their Relationships and Sex/Personal, Social, Health Education programmes across year groups. Also, young people can find completing questionnaires quite difficult. The information your child provides could help Samantha develop an easier questionnaire for young people to use.

What if there is a problem?

If you have any concerns about any aspect of this study, you should ask to speak to the researcher who will do her best to answer your questions. The researchers contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by contacting the university's complaints department; Kevin Browne, Professor of Forensic Psychology & Child Health Director of the Centre for Forensic and Family Psychology, Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham, B25, YANG Fujia Building Jubilee Campus Wollaton Road, Nottingham NG8 1BB. Telephone: 0115 8232210, Email: kevin.browne@nottingham.ac.uk

Will my child taking part in the study be kept confidential?

We will follow ethical and legal practice and all information about your child will be handled in confidence. If they join the study some parts of their school notes, and the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to your child as a research participant and we will do our best to meet this duty.

All information which is collected about your child during the course of the research will be kept **strictly confidential**, stored in a secure and locked office at the researchers place of work, and on a password protected database. Any information about your child that leaves that office will have their name and address removed (anonymised) and a unique code will be used so they cannot be recognised from it.

All research data will be kept securely for 7 years. After this time your child's data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your child's confidentiality, only members of the research team will have access to your child's personal data.

Should the young person give information that includes harm to themselves or harm to other people, these details will need to be shared (e.g. with staff or police) to stop any harm to them or other people.

What will happen if we don't want to carry on with the study?

Your child's participation is voluntary and they are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far cannot be erased and this information may still be used in the project analysis.

What if my child has difficult feelings when completing the questionnaire?

If at any time your child experiences difficult feelings completing the questionnaire they will be asked if they want to take a break and continue at

a later time. If they do not want to continue and it is incomplete then the data will not be used for research and therefore shredded. Your child will be immediately debriefed and will be encouraged to access support from either the person administering the questionnaire, or an identified member of staff. The debriefing sheet will also contain a help line they can contact should they need further assistance.

What will happen to the results of the research study?

If you would like to know what the research finds out, then please tick the box on the consent form.

Who is organising the research?

This research is being organised by the University of Nottingham.

Who has reviewed the study?

All research involving young people is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by East Midlands, Nottingham 2 Research Ethics Committee.

Further information and contact details

If you have any questions or would like further information on this study then please talk to: -

Name: Samantha Richards - Trainee Forensic Psychologist,
University of Nottingham.

Work Address: SWAAY Child and Adolescent Services, PO Box 2929,
Earley, Reading, Berkshire RG6 7XQ

Work telephone: 0118 926 1010 Email: lwxsjr@nottingham.ac.uk

Or you can contact her supervisor:

Professor Kevin Browne Professor of Forensic Psychology; University of Nottingham, B22, Institute of Work, Health and Organisations, Wollaton Road, Nottingham, NG8 1BB. Telephone: 0115 8232210, Fax: 0115 8466625

Email: kevin.browne@nottingham.ac.uk

Participants Information Sheet

Under 16's and under 18's with ID
(N-HSB Final version 1.1: Date: 04.07.14)

Title of Study: Assessing Sexual Knowledge in Young People

Name of Researcher: Samantha Richards

Sam Richards is a Trainee Forensic Psychologist studying for her Doctorate at the University of Nottingham. Sam is part of a research group who work with young people who show or have shown problematic sexual behaviours. She is using a new questionnaire to see if it is good at measuring sexual knowledge in young people.

Sam would like to find out if it is okay with you if you complete this questionnaire. She also wants to know whether she can use your questionnaire for her study. The information Sam gets from young people at your school will be compared to the information given by young people who have problematic sexual behaviour. She will then see if there are any differences in sexual knowledge.

What information do you want?

- 1) Sam would like your answers from the questionnaire
- 2) Some more information about you (e.g. age, ethnic origin, IQ, statement of educational needs, *if you have one*, and sex education you have completed at school). This information will be given by your teacher.
- 3) What you think about the questionnaire (e.g. do you think it was easy or hard to understand?) and anything else you want to say about the questions and pictures.

Will people find out about my information?

If you choose to take part, your questionnaire will be kept private in a locked filing cabinet at Sam's work office. Sam will take your name off it so that no one will know that it is your information.

If you give information that includes harm to yourself or harm to other people, these details will need to be shared (e.g. with staff or police) to stop any harm to yourself or other people.

Do I have to take part?

You do not have to do the questionnaire if you don't want to.

What will happen to me if I take part?

We will first need to have been given written permission from your parent or guardian saying you can take part in the research. You can then give your permission too. There is just one questionnaire to do. Sam would like you to think about the questions carefully and then answer them. She would also like you to say what you think about the questionnaire. It will probably take around 20-30 minutes to do, and you will get help doing it. Some questions also have pictures which include line drawings of naked males and females and some line drawings of sexual behaviours. These pictures are there to help you.

What if I have difficult feelings when completing the questionnaire?

If you feel upset, angry or uncomfortable in any way, you can talk to the person helping you or you can talk to your teacher or another member of staff. We can try to help you with these feelings.

What do I gain from taking part?

You will have helped Sam to find out more about the levels of sexual knowledge in different groups of young people. Also, young people can find completing questionnaires hard and don't like doing them. Your information could help Sam to make an easier questionnaire for young people to use.

What happens when the research has finished?

If you would like to know what the research finds out, then tick the box on the assent form. You can get an assent form from the person helping you with the questionnaire.

What if I change my mind and don't want my information used for the research anymore?

If you don't want your information to be used in the research anymore, just tell the person who helped you with the questionnaire or your teacher. You have a month to decide whether or not you want your information to be used in the study.

Contact for Further Information

If you have any questions which you would like to ask about the study, then please talk to the person reading this to you. Or, you can ask to contact Sam to ask these questions yourself. Below are her details.

Name: Sam Richards, Trainee Forensic Psychologist,
University of Nottingham

Work Address: SWAAY Child and Adolescent Services, PO Box
2929, Earley, Reading, Berkshire RG6 7XQ

Work telephone: 0118 926 1010 Email: lwxsjr@nottingham.ac.uk

Participant Information Sheet

16-17+Years

(N-HSB Final version 1.2: Date: 25.09.14)

Title of Study: Assessing Sexual Knowledge in Young People.

Name of Researcher: Samantha Richards

We would like to invite you to take part in our research study aimed at finding out more about young people's sexual knowledge and effective ways of assessing this. Before you decide we would like you to understand why the research is being done and what it will involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

What is the purpose of the study?

Samantha Richards is a Trainee Forensic Psychologist studying the Forensic Psychology Doctorate at the University of Nottingham. She is adapting a questionnaire developed to measure sexual knowledge in adults with learning disabilities, to see whether it is a useful, measure of sexual knowledge in adolescents with and without learning disabilities.

This data will then be directly compared to a sample of UK adolescents who have a history of harmful sexual behaviour to investigate whether there are any differences in sexual knowledge between these populations.

Why have I been invited?

You are being invited to take part because you are a pupil in one of the schools collaborating in the study and you have been proposed as a participant as you are an adolescent without a learning disability with no history of harmful sexual behaviour.

Do I have to take part?

It is up to you to decide whether or not you take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason. This will not affect your legal rights.

What will happen to me if I take part?

Samantha would like your answers from the questionnaire and some more information about you (e.g. age, ethnic origin, IQ, statement of educational needs, *where applicable* and any sex education completed at school). She would also like your feedback on the questionnaire (e.g. was easy or hard to understand, and anything else you want to say about the questions and accompanying pictures).

Please note some questions have supporting pictures which include line drawings of naked males and females and some line drawings of sexual behaviours (e.g. masturbation and sexual intercourse); these images are simple in nature and not indecent in any way. They have been adapted from resources used in sex and relationship education programs for young people and adults with and without intellectual difficulties (*Picture Yourself*, Dixon & Craft, 2002; *Picture Yourself 2*, Dixon, 2004; and the *Assessment of Sexual Knowledge*, Butler, Leighton & Galea, 2003). These pictures have been included to provide you with a greater understanding of the questions they relate to.

What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get from the study may help to find out more about the levels of sexual knowledge in different groups of young people. Your school may also use the anonymised data to assess the effectiveness and further inform their Sex and Relationships/Personal, Social, Health Education programmes across year groups. Also, young people can find completing questionnaires quite difficult. The information you provide could help Samantha develop an easier questionnaire for young people to use.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do her best to answer your questions. The researchers contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by contacting the university's complaints department; Kevin Browne, Professor of Forensic Psychology & Child Health Director of the Centre for Forensic and Family Psychology, Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham, B25, YANG Fujia Building Jubilee Campus Wollaton Road, Nottingham NG8 1BB. Telephone: 0115 8232210, Email: kevin.browne@nottingham.ac.uk

Will my taking part in the study be kept confidential?

We will follow ethical and legal practice and all information about you will be handled in confidence. If you join the study some parts of your school notes, and the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office at the researcher's place of work, and on a password protected database. Any information about you which leaves that office will have your name and address removed (anonymised) and a unique code will be used so you cannot be recognised from it.

All research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

If you give information that includes harm to yourself or harm to other people, these details will need to be shared (e.g. with staff or police) to stop any harm to yourself or other people.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far cannot be erased and this information may still be used in the project analysis.

What if I have difficult feelings when completing the questionnaire?

If at any time you experience difficult feelings completing the questionnaire you will be asked if you want to take a break and continue at a later time. If you do not want to continue and it is incomplete, then the data will not be used for research and therefore shredded. You will be immediately debriefed

and will be encouraged to access support from either the person administering the questionnaire, or an identified member of staff. The debriefing sheet will also contain a help line you can contact should you need further assistance.

What will happen to the results of the research study?

If you would like to know what the research finds out, then please tick the box on the consent form.

Who is organising the research?

This research is being organised by the University of Nottingham.

Who has reviewed the study?

All research involving young people is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by East Midlands, Nottingham 2 Research Ethics Committee.

Further information and contact details

If you have any questions or would like further information on this study then please talk to:-

Name: Samantha Richards - Trainee Forensic Psychologist,
University of Nottingham

Work Address: SWAAY Child and Adolescent Services, PO Box 2929
Earley, Reading, Berkshire RG6 7XQ.

Work telephone: 0118 926 1010 Email: lwxsjr@nottingham.ac.uk

Or you can contact her supervisor:

Professor Kevin Browne Professor of Forensic Psychology; University of Nottingham, B22, Institute of Work, Health and Organisations, Wollaton Road, Nottingham, NG8 1BB. Telephone: 0115 8232210, Fax: 0115 8466625. Email: kevin.browne@nottingham.ac.uk

Appendix 23: Study Consent Forms

CONSENT FORM FOR PARENT/GUARDIAN

(Final version 1.1: Date: 04.07.14)

Title of Study: Assessing Sexual Knowledge in Young People

REC ref: 14/EM/1023

Name of Researcher: Samantha Richards

Name of Participant: (Parent): _____

Name of Participant: (Child): _____

Please initial box

1. I confirm that I have read and understand the information sheet version numberdated..... for the above study and have had the opportunity to ask questions.
2. I understand that my child's participation is voluntary and that they are free to withdraw up to any time, without given any reason, and without their medical care or legal rights being affected. I understand that should they withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis.
3. I understand that relevant sections of my child's notes and data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group and regulatory authorities where it is relevant to their taking part in this study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from their participation in this study. I understand that my child's personal details will be kept confidential.
4. I agree for my child (named above) to take part in the above study.

Name of Parent/Guardian Date Signature

Name of Person taking consent Date Signature

Section for children to give assent

I agree to take part in this study

Name of Child (for assent) Date Signature

Please tick this box if you wish to receive a summary of the study results.

CONSENT FORM FOR PARTICIPANTS

16-17+ years

(Final version 1.1: Date: 04.07.14)

Title of Study: Assessing Sexual Knowledge in Young People

REC ref: 14/EM/1023

Name of Researcher: Samantha Richards

Name of Participant: _____

Please initial box

- 1. I confirm that I have read and understand the information sheet version numberdated..... for the above study and have had the opportunity to ask questions.

- 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected. I understand that should I withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis.

- 3. I understand that relevant sections of my notes and data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group and regulatory authorities where it is relevant to my taking part in this study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential.

- 4. I agree to take part in the above study.

Name of Participant Date Signature

Name of Person Taking Consent Date Signature

Please tick this box if you wish to receive a summary of the study results.