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Men with Intellectual Disabilities who have Attended Sex Offender Treatment Groups: A
Follow-Up

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Running Head: Follow-Up: Sex Offenders with Intellectual Disabilities

Men with Intellectual Disabilities who have Attended Sex Offender Treatment Groups: A

Follow-Up

Abstract

Background: There have been a number of studies of treatment for men with intellectual disabilities and sexually abusive behavior but few follow-up studies. Our aim was to follow-up men with intellectual disabilities who had attended group cognitive-behavioural treatment (CBT) for sexually abusive behaviour.

Method: 34 men (from seven treatment sites) were followed-up. All had attended SOTSEC-ID groups. The mean length of follow-up, since the end of the treatment group, was 44 months (s.d. 28.7, range 15 - 106 months). Measures were used to evaluate changes in sexual knowledge, cognitive distortions and victim empathy. Repeat sexually abusive behaviour was also assessed.

Results: The statistically significant improvements in sexual knowledge, empathy and cognitive distortions that occurred during treatment were maintained at follow-up. In all, 11 of the 34 (32%) men showed further sexually abusive behavior at some point after their treatment group started, counting up to this follow-up point. Only two of these 11 men received convictions for this behaviour. Analyses of the variables associated with further sexually abusive behavior indicated that a diagnosis of autism was associated with a higher likelihood of further sexually abusive behaviour.

Conclusions: This study provides some evidence of the longer term effectiveness of group CBT for men with intellectual disabilities and sexually abusive behavior, but there remains a need for further follow-up studies of large samples and a randomised controlled trial.

Keywords: intellectual disability; sexual offending; recidivism; group cognitive-behaviour therapy; follow-up; SOTSEC-ID

Introduction

Sexually abusive behaviour is an exceptionally damaging form of offending behaviour (Finklehor, 1986). Developing effective treatment programmes for perpetrators is a key strategy in reducing the likelihood of repeat offending (Brown, 2001), for both men with intellectual disabilities and men without.

Based on figures from Swanson and Garwick (1990), Thompson and Brown (1997) estimated that 6% of men with intellectual disabilities display sexually abusive behaviour. However, it is widely acknowledged that accurately determining the prevalence (and recidivism) of sexual offending in men with ID is difficult, and available figures are likely to be an underestimate (Brown & Thompson, 1997; Thompson, 1997). Possible reasons for this include methodological issues (e.g. differing definitions of intellectual disability - Loucks, 2007; McBrien, Hodgetts & Gregory 2003), difficulties inherent to this type of offending (e.g. offending frequently taking place in private and many victims not disclosing their abuse - Salter 1988; Finklehor, 1994); and evidence that many sexually abusive incidents by men with intellectual disabilities are either not reported to the police (Brown & Thompson, 1997; Thompson, 1997) or are reported but no action is taken by the police (Brown, Stein & Turk, 1995; McCarthy & Thompson, 1997).

In the general population, sex offenders have complex cognitive and behavioural deficits (Haaven, Little & Petre-Miller, 1990). Treatment programmes such as cognitive

behaviour therapy target these deficits and hypothesise that in doing so, recidivism will be reduced. Although there have been disagreements about the effectiveness of therapy (Furby, Weinrott & Blackshaw, 1989; Kenworthy, Adams, Brooks-Gordon, & Fenton, 2004), recent meta-analyses have provided encouraging results (Hanson et al., 2002). Similarly, Craig, Browne and Stringer (2003) reviewed 19 treatment studies (n=33,001) and found that all but one of the studies reported reduced recidivism, with cognitive behavioural techniques being the most effective.

There is also a growing evidence base for cognitive behavioural programmes for men with intellectual disabilities who have displayed sexually abusive behaviour (e.g., Charman & Clare, 1992; Clare, 1993; Murphy, Powell, Guzman & Hays, 2007). These studies have largely been restricted to small case series (e.g., Lindsay, Neilson, Morrison, & Smith 1998a; Lindsay & Smith, 1998; Rose, Jenkins, O'Connor, Jones, & Felce, 2002) although a small number have used larger samples (e.g. Bremble & Rose, 1999; Sex Offender Treatment Services Collaborative – Intellectual Disabilities (SOTSEC-ID), 2010). Several reviews have considered the outcomes of such treatment studies (e.g. Craig & Hutchinson, 2005; Wilcox, 2004). Courtney and Rose (2004) reviewed 31 treatment outcome studies and concluded that, despite methodological limitations, many studies demonstrated successful treatments (albeit with small numbers of participants). They noted a strong tendency for longer treatment programmes to offer more sustained change in cognitive distortions and reduced re-offending.

The principal measure for evaluating the effectiveness of interventions for offenders is reduced re-offending (McGuire, 2002). There have been several reviews of

recidivism in the non-intellectually disabled sex offending literature. Hanson and Bussière (1998) reviewed 61 recidivism studies (n=almost 24,000) and found that 13.4% of men re-offended within four to five years. For men with intellectual disabilities there are few long-term follow-up studies of treatment outcome. Most studies come from case series: for example, Rose et al. (2002) reported that none of the six men in his study re-offended in the year following treatment. Lindsay and Smith (1998) found the length of treatment was a significant factor, with men who had attended two years of treatment showing less recidivism than those who had received one year of treatment. Later, Lindsay et al. (2002) audited treatment services for 62 intellectually disabled sex offenders and found that 4% re-offended within the first year and by year four 21% had re-offended. Meanwhile, in another relatively large study (SOTSEC-ID, 2010), three of the 46 men (7%) showed further sexually abusive behaviour during the treatment period (one-year) and four men (9%) showed such behaviour in the six-month follow-up, with many of these behaviours being non-contact sexually abusive behaviours.

In efforts to reduce re-offending and predict who is at higher risk of re-offending, researchers have attempted to identify variables associated with offending (Mezzo and Gravier, 2001). For non-intellectually disabled men several variables have been identified (Hanson & Harris, 2000), such as poor social support, attitudes that are tolerant of sexual deviancy, antisocial lifestyles, poor management strategies, and supervision difficulties (once static risk factors were controlled). Hanson and Bussière (1998) found that recidivism was related to several factors including sexual deviancy, age, total prior non-sexual offences, and failure to complete treatment.

Few studies have reported on factors associated with sexual recidivism amongst intellectually disabled sex offenders. Lindsay, Elliot and Astell (2004), with a sample of 52 men, reported static risk factors that were significantly correlated with recidivism, for example, sexual abuse in childhood and poor relationship with their mother (it was unclear how this was measured). Significant dynamic factors included antisocial attitude, poor response to treatment and denial (again it was unclear how these were measured). All these factors also appeared to relate to risk of recidivism in studies from the non-intellectually disabled population of sex offenders (Lindsay et al., 2004). SOTSEC-ID (2010), meanwhile, found only one variable associated with recidivism in their 6 mth follow-up, whether the man had a diagnosis of autistic spectrum conditions (n=46). However, they noted that few men in the sample had re-offended and it was unlikely that all variables related to offending had been uncovered.

This study was a further follow-up of men from the study by SOTSEC-ID (2010), to investigate longer-term outcomes of the treatment.

The study had two main aims:

Aim 1: To investigate changes in participants' sexual attitudes and knowledge, attitudes towards sexual offending, degree of minimisation, denial for the offence(s), blame for the victim, and degree of victim empathy since the last follow-up (six months after completion of treatment).

Aim 2: To investigate the recurrence of sexually abusive behaviour during follow-up (and factors associated with this).

Materials and Method

Design

This was a follow-up of a treatment outcome study (SOTSEC-ID, 2010) in which participants had previously been assessed: before treatment; immediately after treatment; and six months after treatment. This study assessed the participants following a longer follow-up period, the length of which varied depending on when their treatment group finished.

Participants

Participants were all the men who took part in the original treatment study¹ (SOTSEC-ID, 2010) who consented both to that study and to this study and were available for the research. Exclusion criteria for this study were: if there were significant incomplete data from the first study; if the man completed treatment less than nine months prior to this time point; and if the man was experiencing current severe mental health difficulties.

Measures

Measures of participant characteristics.

In the first study several baseline measures of participant characteristics were collected (SOTSEC-ID, 2010) but only degree of intellectual disability (Wechsler Adult Intelligence Scale-Third Edition, WAIS-III, Wechsler, 1997) will be referred to here.

Process Measures.

In addition, during the first study four self-report measures were completed pre-treatment, immediately post-treatment and at six-month follow-up. These measures were repeated for this study:

¹ Data in the current study includes a few men who were not included in the first published data (SOTSEC-ID, 2010). This was because at the time of publication, there were not complete enough data for some men to be included. However, where these data have now been collected these men can now be included in the current study.

- Sexual Attitudes and Knowledge Questionnaire (SAK, Heighway & Webster, 2007).

The Sexual Attitudes and Knowledge Questionnaire contains 19 questions (accompanied by pictorial representations) regarding sexual knowledge and attitudes, and was designed for use with people with intellectual disabilities. The SAK has four subscales; i) understanding relationships, ii) social interaction, iii) sexual awareness, iv) assertiveness. Higher scores indicate better knowledge and attitudes. Cronbach's alpha for this measure was 0.82 (Langdon, Maxted, Murphy & SOTSEC-ID, 2007).

- Questionnaire on Attitudes Consistent with Sexual Offending (QACSO; Broxholme & Lindsay, 2003; Lindsay, Carson & Whitefield, 2000; Lindsay, Michie, Whitefield, Martin, Grieve & Carson, 2006; Lindsay, Whitefield & Carson, 2007)

The Questionnaire on Attitudes Consistent with Sexual Offending is a 63-item questionnaire designed for use with sex offenders with intellectual disabilities. The questionnaire assesses distorted cognitions relating to sexual offending spanning seven different offending categories: i) rape, ii) voyeurism, iii) exhibitionism, iv) dating abuse, v) homosexual assault, vi) paedophilia, vii) stalking and sexual harassment. Lower scores indicate fewer cognitive distortions. The QACSO has been found to effectively discriminate between sex offenders and non-offenders with intellectual disabilities, with good levels of test-retest reliability for six of the seven categories (Broxholme & Lindsay, 2003).

- Sexual Offenders Self Appraisal Scale (SOSAS; Bray & Foreshaw, 1996)

The Sexual Offenders Self Appraisal Scale was designed for people with intellectual disabilities and examines cognitions about sexual offending. Twenty statements (that form four subscales; i) denial, ii) victim blaming, iii) minimisation,

iv) realism) require the respondent to indicate their level of agreement or disagreement on a five-point scale, Lower scores indicate fewer cognitive distortions.

Cronbach's alpha for this measure was 0.68 (Langdon et al., 2007).

- Victim Empathy Scale-Adapted (VES-A; Beckett & Fisher, 1994)

The Victim Empathy Scale is a 30 item scale originally developed for use with sexual offenders without intellectual disabilities, and it has been adapted for use with sexual offenders with intellectual disabilities. Respondents rate (on four-point Likert Scales) how they feel and how they think their victim feels about a series of statements regarding the respondents' sexual offending. Lower scores indicate better empathy. For the adapted measure the Cronbach's alpha was 0.91 (Langdon et al., 2007).

Demographic information and history of sexually abusive behaviour.

Detailed information was collected on the men's characteristics and behaviour during the first study, and was gathered into a form called the Men's Group Database Schedule. This was completed in three phases, each corresponding to one of the data collection points. For the current study a fourth phase instrument (called Men's Group Database Schedule Phase 4) was developed. It is a structured form for gathering information from multiple sources including: interview and case notes from residential and day care staff; health care professionals; social workers; police and probation officers. Phase 4 includes:

- (i) Background information e.g. changes in their health, medication and circumstances.
- (ii) Sexually abusive behaviour (since the six-month follow-up), with detailed information about any incidents and their consequences for the men.

Sexually abusive behaviour (including recidivism) was defined as any sexual act which, if it came to the attention of the police, would be considered illegal. All known sexually abusive behaviours were collated, regardless of whether they had actually come to the attention of the police (as for the first study), so as to ensure that as many incidents as possible are collated.

For this study a new question was also added to record any instances of inappropriate behaviours that did not amount to potentially arrestable offences (called ‘chain behaviours’), but nevertheless were behaviours of concern. These were behaviours which seemed to occur in the response chain leading to sexual offending for that man (for example, hanging around outside a school playground for men who targeted child victims).

Procedure

Ethical approval was gained from one Multi-Site Research Ethics Committee, and each Local Research Ethics Committee (LREC). Research & Development (R&D) approval was obtained from each Research and Development Office (National Health Service, NHS, sites) for to each site. Following ethical approval at each site, the men’s treatment group facilitator telephoned each man to ask if he/she could visit them to explain about the study. Those who agreed were visited by the group facilitator and the requirements of the study were explained using the participant information sheet and consent forms. The men had one week to decide if they wished to participate. Following receipt of the consent forms an appointment to complete the measures with the men was arranged by the group facilitator or, if they were unavailable, by the researcher. The group facilitator or researcher then visited each man, at a location agreeable to the men,

and completed an interview², followed by the four process measures. On average, sessions lasted approximately 120 minutes, with rest breaks when required.

The researcher (sometimes with assistance from the group facilitator) completed the Men's Group Database Schedule Phase 4, using information from the man himself and from healthcare case notes and social services records (as well as from Probation records where relevant).

Results

Description of Participants

Data were collected from 7 sites, referring to 13 treatment groups in total (since some sites ran more than one group). The number of men who had treatment in these 13 groups numbered 77, of whom 61 had consented to be part of the first study (SOTSEC-ID, 2010); 55 of these also consented to this study. However due to time constraints (particularly the very lengthy processes for obtaining ethical approval) only 34 of these 55 men took part in the research. Where men completed more than one treatment group (n=5 men) data from their first treatment group only is included, on the grounds of simplicity. It is important to note that the baseline data for the 34 men included did not differ statistically from that of the 46 men described in SOTSEC-ID (2010) in terms of age at start of treatment (39.6yrs (s.d. 12.1) and 35.3yrs (s.d.12.0) respectively); ethnicity (85% white and 86% white respectively); formal intellectual disability diagnoses³ (91% in both cases); autism diagnoses (21% in both cases); living circumstances at baseline (24% vs 39% in low or medium secure services); degree of legal restriction at baseline

² An interview (the Men's Group Interview) was also completed with the men to collect their views of treatment and to explore what topics covered during the treatment could be recalled by the men. This information is to be published as a separate paper.

³ All men were receiving intellectual disability services

(62% vs 41% not legally restricted); numbers who had been previously sexually abused themselves as victims (43% vs 55% respectively); percentage with previous non-sexual convictions (29% and 31% respectively); percentage with previous sexually abusive behaviour prior to the index set (77% vs 76% respectively); pre-group mean total SAKS score (40.3 vs 42.0 respectively), victim empathy score (33.2 vs 34.5), SOSAS score (53.8 vs 55.2) or QASCO score (56.6 vs 51.4).

The mean length of time since the end of the 34 men's treatment groups was 44 months (s.d. 28.8, range 15 - 106 months). The mean age of the men at this follow-up was 44 years (s.d. 12, range 22 - 68 yrs). The majority of the men were white British (85%), all used learning disability services, and many had dual diagnoses (21% had diagnoses of autistic spectrum conditions, 12% had had mood disorder diagnoses, 12% had had diagnoses of schizophrenia, 9% personality disorder and 6% anxiety disorder). Sixty-two percent of these 34 men had originally come voluntarily for treatment; 38% had been under legal obligation to attend the treatment group (e.g. Mental Health Act or Community Rehabilitation Order). At this follow-up 74% were no longer under any legal restriction.

Five men had had convictions in childhood (3 of these men for sexual crimes) and 10 men had had non-sexual convictions in adulthood (mostly violence, burglary and/or criminal damage). Over one-third of the men (43%) were known to have been the victims of sexual abuse themselves.

The men lived in a variety of settings: 24% lived in low or medium secure services and 76% in the community at the start of the study; at follow-up, statistically significantly fewer men (15%) still lived in secure services, the remainder (85%) living

in the community- chi square=19.05, $p<0.01$. At follow-up a greater number of the men also no longer required an escort when in the community, compared to at the start of the group and these changes were also statistically significant (chi square 13.49, $p<0.01$).

Men as perpetrators of sexually abusive behaviour.

Most of the men were known to have perpetrated numerous incidents of sexually abusive behaviours (defined as sets⁴) before the start of the treatment group. The sexually abusive incident that occurred closest to the time of the start of the treatment group was recorded as the 'index set' (regardless of the severity or legal outcome). Table 1 summarises the history of sexually abusive behaviours before the index set, gives details of the index set, and any sets perpetrated during treatment, during the six-month follow-up and during the current follow-up period. Twenty-four men out of a total of 31 (i.e. 77%) had engaged in previous sexually abusive behaviour before the index set (this was unknown for three men). Between them, the men had engaged in well over 100 sets of sexually abusive behaviour before the index set. Overall, 65% of men were considered contact abusers and 35% non-contact abusers.

Table 1 about here

Victims' gender, age and their relationships to the men, and the legal and social outcomes of the men's index sexually abusive behaviour were not significantly different from that in the main study (SOTSEC-ID, 2010) and for reasons of space these are not reported here.

Psychometric measures at baseline.

⁴ For the men as perpetrators, a 'set' is defined as sexually abusive behaviours perpetrated against one victim (even if this happened repeatedly over a period of time). Where there were two victims they are counted as two sets, even if they happened on the same day. Where the number of victims is not known, e.g. where the general public is the victim, these are counted as one set for each occasion.

The mean WAIS-III/R full scale IQ for the 30 men who had completed the measure was 65 (SD 7), range 52-83; mean verbal IQ 66, SD 8; mean performance IQ 68, SD 8). Although five men did not meet criteria for having an intellectual disability in terms of WAIS-III/R scores (2 men scored 70, 1 man scored 74, 1 man scored 78 and 1 man scored 83), they had all been receiving intellectual disability services and only two of these men had an additional diagnosis of autistic spectrum disorders (IQs 74 and 83).

Changes in Process Measures at Current Follow-Up

Four process measures (the SAKS, SOSAS, VES-A and QACSO) were taken at: pre-group; post-group; six-month follow-up and the current 'longer-term' follow-up. There were insufficient numbers to analyse the six-month follow-up data, so this time point was removed from analyses. Improvement in the SAKS is indicated by higher scores; improvement in all other measures is indicated by lower scores.

Most of the process measures data were found not to conform to normality and so the data were analysed by non-parametric methods. A conservative significance level of 0.01 was used, due to the number of analyses performed.

The process measures at pre/post/follow-up were analysed using Friedman tests and any significant findings were further analysed using Wilcoxon Signed Ranks tests. Table 2 shows the results from the Friedman analyses at the different time points for all men for whom they were completed.

Table 2 about here

SAKS (measuring sexual attitudes and knowledge).

The results for the total SAKS score indicated highly significant improvements across time: pre to post-group ($z = -3.283$, $n=32$, $p<0.001$); post to follow-up ($z = -3.286$, $n=34$, $p<0.001$); and pre to follow-up ($z = -4.440$, $n=32$, $p<0.001$).

VES-A (measuring victim empathy).

The results for the total VES-A score indicated highly significant improvements across time, with significant improvements between pre to post-group ($z = -3.384$, $n=32$, $p<0.001$) and between pre to follow-up ($z = -3.275$, $n=32$, $p<0.001$). Changes between post-group to follow-up were not significant ($z = -0.020$, $n=33$, $p=0.984$).

SOSAS (measuring distorted cognitions).

For the SOSAS total score, there were no significant changes in scores between any of the time points.

QACSO (measuring distorted cognitions).

The results for the QACSO total score indicated highly significant improvement across time, with improvements significant at pre to post-group ($z = -4.229$, $n=30$, $p<0.001$), and at pre-group to follow-up ($z = -4.228$, $n=30$, $p<0.001$), but no difference between post-group and follow-up.

Recidivism during the Follow-Up

There were no instances of the men committing further non-sexual offences during the treatment group, six-month follow-up or this follow-up period.

Regarding sexually abusive behaviour, overall, counting from the start of the treatment group, 11 of the 34 men engaged in further such behaviour (see Table 3). Five men perpetrated further behaviours during the one-year long treatment group. Two of

these five plus another two men perpetrated further sexually abusive behaviour during the six-month follow-up. Eight men (including four of those from previous periods) perpetrated further sexually abusive behaviour in this follow-up period, i.e. from the 6 month follow-up data point onwards. Overall 7 men were interviewed by the police at some point, but only two men went to court and both received a conviction (CRO). The recidivism rate, counting any sexually abusive behaviour since commencing the treatment group was thus 11/34 (32%). The recidivism rate counting any sexually abusive behaviour since the end of the treatment group was 8/34 (24%). However, if only reconvications are counted as recidivism, the recidivism rate was 2/34 (6%).

The mean length of the follow-up (from the end of the treatment group) for the men who perpetrated any further sexually abusive behaviours was 58 months (s.d.33.4 months). The mean length of the follow-up for the men who did not perpetrate was 37 months (s.d. 24.3 mths). There was no significant difference between these figures .

Types of behaviours perpetrated during the follow-up.

The number of sets perpetrated by the 11 men who showed any further sexually abusive behaviour since the start of the treatment group ranged from one to over 60. Two of the men (participant 1 and participant 5) perpetrated a far higher number of behaviours than the other men: over 60 sets and over 30 sets respectively, since the start of the treatment group. These two men were engaging in non-contact offences and were both on the autistic spectrum. Most of the other 9 men's behaviours also involved non-contact behaviours. Only three of the men were involved in any contact behaviours (for example, touching genitals, bottom or chest through clothing; kissing a woman on the street, touching a staff member's thigh).

Table 1 shows that a number of 'serious' behaviours that were perpetrated prior to the start of treatment were not perpetrated during the follow-up: perpetrator masturbates victim; perpetrator performs oral sex on victim; victim masturbates perpetrator; victim performs oral sex on perpetrator; perpetrator performs attempted/actual rape of the victim; perpetrator photographs the victim pornographically.

All but one of the men's sets perpetrated during the follow-up involved abuse of relatively short duration (i.e. occurred on one day only). The one exception was participant 5, whose behaviours involved telephone calls to the Samaritans whilst masturbating. This behaviour had been on-going for over four years and he may have contacted the same victim on numerous occasions.

Information about the men who perpetrated further sexually abusive behaviours.

The eleven men had a mean IQ of 66.3 (SD 8.3) and this was not different from those who did not show further sexually abusive behaviour (mean IQ 63.6, s.d. 1.4). Five of the 11 were on the autistic spectrum (see below for further discussion of this point). Many of the men (n=7, 63%) had themselves been the victim of sexual assault (but this did not differ from other men who did not engage in further sexually abusive behaviour) and many (8) were receiving therapy since the end of the Treatment group. Nine of the 11 men had a history of perpetrating sexually abusive behaviour before their index offence, one was not thought to have had such a history (n=1 unknown). However, taking into account all sets of behaviour perpetrated before the index offence, the men who perpetrated sexually abusive behaviours during this follow-up had perpetrated only about the same number of sets prior to the index set, compared to those men who did not perpetrate in this follow-up (average 5.2 sets and 4.5 sets respectively).

Chain behaviours.

Brief information was gathered about chain behaviours. These are behaviours which did not meet the criterion for a set of sexually abusive behaviour (i.e. the behaviour would not be considered illegal if it came to the attention of the police), but which were worrying because they appeared to be part of a chain that might lead to sexually abusive behaviour. Behaviours classified as 'early chain' included, for example, "staring at a young girl", whereas 'late chain' behaviours included "writing a love letter to a stranger" and "bumped into female and touched her hair."

Seventeen of the men were known to have engaged in chain behaviours; eight of these men also perpetrated further sexually abusive behaviours. Only two of the men were known to have perpetrated sexually abusive behaviours without chain behaviours. In total, half of the men in the study (n=17) had not perpetrated any behaviours of a sexually inappropriate nature at all during the follow-up (i.e. neither 'chain' behaviours nor sexually abusive behaviours).

Variables associated with further sexually abusive behaviour.

A variety of variables were examined that were considered likely to affect outcome (i.e. the occurrence of further sexually abusive behaviour), based on theoretical expectations and/or previous literature. For several variables (e.g. serious mental ill health), there were too few cases for analysis.

Most variables were found not to be significantly related to recidivism. There were no significant differences between the men who had engaged in further sexually abusive behaviour during the follow-up and those who did not, in terms of: IQ (full scale, verbal or performance); pre-group sexual knowledge, victim empathy, SOSAS or

QACSO scores; post-group sexual knowledge, victim empathy, SOSAS or QACSO scores; whether they had perpetrated any chain behaviours; type of residential accommodation at follow-up; their level of supervision when in the community at follow-up; whether they were living in a secure setting at follow-up; their legal status at follow-up; if they received concurrent therapy at the start of the treatment group or were in current therapy at the time of the follow-up; childhood history of offending; history of adult offending (sexual or non-sexual); and the previous experience of being sexually abused themselves.

However, the following variables were found to be associated to further sexually abusive behaviour:

- Men who had a diagnosis of autistic spectrum disorders were more likely to have shown further sexually abusive behaviours (chi square 6.7, $p < 0.01$)
- The number of 'late' chain behaviours perpetrated correlated with the number of further sexually abusive behaviours shown (Spearman's rho 0.599, $p < 0.01$).

Discussion

Some sites that had run treatment groups were unable to take part in the current study and the current findings must be interpreted in this light. It is important to note however that the 34 men included in the study did not differ from the men described in SOTSEC-ID (2010). The final sample of 34 men is a large sample compared to many previous studies (Craig, Stringer & Moss, 2006; Lindsay & Smith, 1998; O'Connor, 1996).

The men who participated in this study were similar to those reported in the literature: they had mild to borderline intellectual difficulties (Lindsay & Smith, 1998), were relatively young (Bremble & Rose, 1999), had frequently been the victim of abuse themselves (Lindsay, Law, Quinn, Smart & Smith, 2001) and often had dual diagnoses (Lindsay et al., 2002).

Considering the amount of retrospective sets perpetrated before treatment, the men had received relatively few convictions for their behaviours (32 convictions between the men for over 100 sets perpetrated prior to treatment). However, the fact that 20 of the 34 men had received any conviction for their sexually abusive behaviour is a high proportion of the sample, considering that previous research suggested that many men with intellectual disabilities did not receive convictions for their behaviours (Brown et al., 1995; McCarthy & Thompson, 1997). It may be that the men who were referred for and received treatment were the most serious offenders and therefore they may be more likely to have convictions.

Changes in Process Measures

Psychometric assessments were used to assess if there had been any worsening of scores in the men's sexual knowledge and attitudes, cognitive distortions and victim empathy since completing treatment. The sexual knowledge and attitudes (SAKS) measure continued to improve between post-treatment and follow-up for reasons that were not entirely clear. For the Victim Empathy measure, and one of the cognitive distortions measures (QACSO) the significant improvements gained during treatment were maintained at follow-up. However, for the SOSAS there were no significant changes at any of the time points. The reasons for this were unclear but it may be that the

SOSAS was a less good measure (its internal consistency was lower and the double negatives in the SOSAS were difficult for the men to understand).

The findings that these gains in psychometric scores were maintained at follow-up were somewhat different to what has been reported in the literature: for example, some researchers have reported that reductions in distorted cognitions post-treatment were not maintained at follow-up (e.g. Lindsay and Smith, 1998; Rose et al., 2002). However, SOTSEC-ID (2010) reported that the statistically significant increases in sexual knowledge and empathy and reductions in cognitive distortions following treatment were maintained at six-month follow-up (n=46).

Recidivism during the follow-up

None of the men committed non-sexual offences during the follow-up period; however 11 men did commit sexually abusive behaviours since the start of their treatment group (up until this follow-up point). The number of sets perpetrated during the follow-up was large but mainly consisted of non-contact offences, and the total figure was affected by two of the men who perpetrated a large number of sets between them. The victims were mostly members of the general public and only a small number of offences were perpetrated against victims known to the men, in contrast to what other researchers have found (e.g. Gilby, Wolf & Goldberg, 1989).

Only 7 of these 11 men were interviewed by the police and 4 men did not come to the attention of the police. There seemed to be little difference between the types of offences or victims targeted that were or were not brought to the attention of the police and only two of the men appeared in court and received a conviction, which is generally

consistent with previous literature reporting that few men receive convictions for their offences (Thompson, 1997; McCarthy & Thompson, 1997). Green, Gray and Willner (2002) found that men with a conviction were more likely to have victims who were children and males and also to have perpetrated more serious sexual crimes. However, in the current study, the further sexually abusive behaviours were mostly perpetrated against the public (they may have included males and children), and on the whole the behaviours were not serious (ie they were mainly non-contact behaviours).

Lindsay, Steele, Smith, Quinn, and Allan (2006) reported a recidivism rate of 25% after 12 years; however, as the follow-up period progressed their sample reduced and so in his study from 108 men at year one only 12 men remained at year 12. In the current study, in terms of recidivism perpetrated since the index offence, 11 men had perpetrated giving a 'prospective' recidivism rate of 32% but only two of these men (6%) received convictions. These rates are somewhat lower than those reported in other studies, which mainly consider only reconvictions. Lindsay et al. (2002) followed up 62 men who had received community treatment and reported that 4% re-offended within the first year; by four years 21% of the sample had re-offended. Klimecki, Jenkinson & Wilson (1994) reported that of men who had received custodial sentences, 31% reoffended after a follow-up period of two years (however several of the men were still in prison at the point of the follow-up and therefore the recidivism rate was limited and the men received no treatment). For all offenders (not just sex offenders) they reported that 84% of recidivism occurred within the first 12 months.

Factors associated with recidivism.

Research into predictors of recidivism is limited, but Lindsay and colleagues (2004) reported that several variables were significant in their sample of 52 men. Although some of these variables were investigated in the current study, they were not found to be significantly related to recidivism. SOTSEC-ID (2010) found only one variable associated with recidivism, whether the man had a diagnosis of autistic spectrum conditions (n=46) and this was also found to be the case in this study. In addition, men in this study who engaged in 'late chain' behaviours during the follow-up, engaged in more sexually abusive behaviour during the follow-up. These findings support the idea that for some men there is a chain of behaviours which occur prior to the offending behaviour (George & Marlatt, 1989).

Strengths and Limitations

This study is one of the largest follow-up studies of its kind, both in the number of participants and the length of the follow-up. The length of the follow-up for some men exceeded eight years and although the average length of follow-up was over three years, even this is a relatively long follow-up period for this type of research (e.g., Lindsay et al., 2002; O'Connor, 1996).

The definition of re-offending in this study was broad, which ensured that all known sexually abusive behaviours were included rather than just recorded reconvictions. This gives a more thorough picture of sexually abusive behaviour as it takes into account all acts and not just 'offences' which necessitate a conviction (Brown et al, 1995, Thompson, 1997).

The study also had several limitations. One of the most significant limitations is the lack of a control group of any kind. Without a no-treatment group it is not possible to be certain that the treatment was responsible for the gains made during treatment (Kazdin, 2003). Courtney and Rose (2004) concluded from their review that a lack of controls is a common limitation in the research: there have as yet been no studies of treatment in men with intellectual disabilities that have included control groups.

As the study was multi-sited it required a great deal of time to complete numerous ethical applications and collect data from the different sites. Although this allowed for a large dataset to be gathered, it did however mean that a number of the participants could not be asked to take part due to the time restrictions placed on the study, and this is also a limitation of the study, though analysis of baseline measures for those included here, compared to those reported in SOTSEC-ID (2010), showed no differences between these groups.

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Table 1: Number of men and sets perpetrated during the time points

Sexually abusive behaviour	Number of men engaged in sexually abusive behaviour (& total number of sets ⁵) during:				
	History (pre- index) (24 men)	Index set (34 men)	Treatment group (5 men)	6-month follow-up (4 men)	Current follow-up (8 men)
Contact abuse					
Perpetrator touch victim's genitals (unclothed)	7 (14)	5 (6)	1 (1)	0	0
Perpetrator touch victim's genitals (clothed)	8 (22)	9 (9)	0	2 (2)	1 (1)
Victim touch perpetrator's genitals (unclothed)	1 (2)	1(1)	0	0	0
Victim touch perpetrators genitals (clothed)	1 (2)	0	0	0	0
Victim forced to masturbate perpetrator	1 (2)	2 (2)	0	0	0
Perpetrator masturbates victim	3 (3)	3 (3)	0	0	0
Perpetrator performs oral sex on victim	2 (4)	3 (3)	0	0	0
Victim performs oral sex on perpetrator	0	2 (2)	0	0	0
Perpetrator actual/attempted anal/vaginal penetration of victim	8 (14)	5 (8)	0	0	0
Total contact abuse	31 (63)	30(34)	1 (1)	2 (2)	1 (1)
Non-contact abuse					
Verbal sexual harassment	4 (17)	1 (1)	0	0	3 (18)
Stalking	3 (7)	2 (2)	1 (1)	1 (1)	1 (3)
Indecent exposure	9 (16)	7 (7)	1 (1)	0	3 (6)
Perpetrator masturbates in public	7 (17)	6 (7)	3 (7)	2 (8)	3 (60)
Perpetrator photographed victim pornographically	1 (1)	2 (4)	0	0	0
Other	11 (26)	6 (6)	1(1)	1 (1)	3 (31)
Total non-contact abuse	35 (84)	24 (27)	6 (10)	4 (10)	13 (118)

⁵More than one type of sexually abusive behaviour can occur for each 'set'.

Table 2: Pre-group, post-group and follow-up mean scores, (standard deviations) and Friedman analysis for the sub-scales from the process measures

Measure	Pre-group mean (SD)	Post- group mean (SD)	Current follow-up mean (SD)	Friedman Analysis
SAKS	40.3 (8.1)	44.9 (6.5)	47.2 (6.3)	$\chi^2=35.459$, df=2, p<0.001
Relationships	4.2 (1.5)	4.9 (1.1)	5.6 (0.6)	$\chi^2=27.321$, df=2, p<0.001
Social interaction	2.1 (0.8)	2.4 (0.7)	2.8 (0.5)	$\chi^2=16.926$, df=2, p<0.001
Sexual awareness	26.6 (4.8)	28.7 (3.8)	29.7 (4.0)	$\chi^2=27.291$, df=2, p<0.001
Assertiveness	7.7 (2.1)	8.6 (1.7)	9.8 (2.3)	$\chi^2=24.275$, df=2, p<0.001
VES-A	33.2 (16.7)	24.6 (17.7)	24.5 (21.5)	$\chi^2=15.935$, df=2, p<0.001
SOSAS	53.8 (8.3)	47.0(12.3)	49.4 (13.0)	$\chi^2=4.111$, df=2, p=0.128
Denial	12.9 (4.3)	13.2 (4.8)	12.9 (5.3)	$\chi^2=0.850$, df=2, p=0.654
Victim blaming	14.7 (5.3)	14.0 (4.6)	14.6 (5.1)	$\chi^2=0.118$, df=2, p=0.943
Minimisation	15.2 (5.4)	11.4 (4.9)	12.0 (5.4)	$\chi^2=6.305$, df=2, p=0.043
Realism	11.2 (3.7)	9.0 (4.5)	9.9 (3.7)	$\chi^2=8.973$, df=2, p=0.011
QACSO	56.6(24.8)	35.9 (27.4)	37.6 (28.6)	$\chi^2=32.051$, df=2, p=0.001
Rape	10.6 (4.8)	8.3 (6.6)	7.9 (6.2)	$\chi^2=6.077$, df=2, p=0.048
Voyeurism	5.1 (2.5)	4.0 (3.0)	2.8 (2.5)	$\chi^2=12.743$, df=2, p=<0.01
Exhibitionism	8.0 (4.1)	4.1 (4.5)	5.0 (4.7)	$\chi^2=18.811$, df=2, p<0.001
Dating abuse	6.5 (4.9)	4.1 (4.4)	4.3 (4.2)	$\chi^2=15.763$, df=2, p<0.001
Homosexual assault	6.2 (3.3)	3.7 (3.6)	4.8 (3.6)	$\chi^2=19.220$, df=2, p<0.001
Assault children	9.0 (6.4)	5.0 (5.8)	5.0 (5.9)	$\chi^2=21.380$, df=2, p<0.001
Stalking	11.3 (6.9)	6.9 (5.3)	7.6 (6.7)	$\chi^2=13.830$, df=2, p<0.001

Table 3: Men engaging in further sexually abusive behaviour (SAB)

	During treatment	During first 6 mth follow-up	During this second follow-up	Any, since start of treatment
Number of men	5 (3 of whom then showed no further SAB)	4 (including 2 who had shown SAB during treatment)	8 (including 4 who had shown SAB either during treatment or in 6 mth follow-up)	11