Assessment and Treatment of Offenders with Intellectual and Developmental Disabilities

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In K. Soothill, P. Rogers & M. Dolan (Eds.) (2008).

***Handbook on Forensic Mental Health*. Willan Publishing**

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In the late 19th and early 20th centuries, several writers seemed convinced of a strong link between intellectual and developmental disabilities and crime (Scheerenberger, 1983). In 1921, Goddard suggested that up to 50% of people in prisons were "mentally defective" while Terman (1911) wrote that "There is no investigator who denies the fearful role of mental deficiency in the production of vice, crime and delinquency…not all criminals are feeble minded but all feeble minded are at least potential criminals." (p.11). Clearly there has been historical unease about people with intellectual disabilities and their potential for crime. This chapter will review the trends and developments of research in the field over the last 60 years or so.

There is no doubt that the quantity and sophistication of research investigations have increased in the last 20 years. Partly, this is due to the fact that, following policies of deinstitutionalisation, far more individuals with intellectual disability have gained access to a comprehensive range of experiences in community settings as a result of significant relocations from institutions to local settings. Previously, large institutions provided courts with a diversion option which was frequently employed. The social policy aimed at reducing the numbers in institutions has resulted in three significant changes. Firstly, more individuals with intellectual disability (ID) with potential to offend against society's laws remain living in the community; secondly, if they commit offending or abusive acts, they are more likely to be dealt with by the criminal justice system; and thirdly, the result of court considerations may be the use of a normal range of sentencing options including probation, fines, community service orders and prison. Those involved in service planning, research and clinical services have responded to these changes with a growth in services for this group of individuals, a realisation that central policy initiatives must be implemented, and an upsurge in research and academic interest (Lindsay, Taylor & Sturmey, 2004).

Prevalence of Offending and Recidivism

Despite the long association between crime and ID, it is not clear whether people with ID commit more or less crime than those without (Holland, 2004). The main difficulty when considering prevalence of offending in people with ID is the disparity of methodology used across various studies. Studies have investigated prevalence in high secure hospitals (Walker & McCabe, 1973), prisons (MacEachron, 1979), probation services (Mason & Murphy, 2002), appearance at court (Messinger & Apfelberg, 1961) and appearance at police stations (Lyall et al., 1995). Some studies have reported that particular types of offence are over-represented amongst offenders with ID. For example, Walker and McCabe (1973) in a study of 331 men with ID who had committed offences and been detained under hospital orders to secure provision in England and Wales, found high rates of fire-raising (15%) and sexual offences (28%) when compared with other groups in their secure hospital sample. On the other hand, in a more recent study Hogue et al. (2006) reviewed a number of characteristics of offenders with ID across community, medium/low secure and high secure settings. They found that the rates of arson in the index offence depended on the setting with low rates in the community setting (2.9%) and higher rates in the medium/low secure setting (21.4%). This indicates that the setting in which data is collected is very likely to influence the results and subsequent conclusions about the population.

In a study of individuals assessed for the New York Criminal Justice System, Messinger and Apfelberg (1961) found that about 2.5% had ID. This is roughly similar to the theoretical percentage of individuals with ID in the population. MacEachron (1974) reviewed the literature on prevalence rates for offenders with ID in prisons and found a range from 2.6 to 39.6%. In her own more carefully controlled study, employing recognised intelligence tests, she studies 436 adult male offenders in Maine and Massachusetts state

penal institutions and found prevalence rates of ID of about 0.6 to 2.3%. Variations in inclusion criteria used, particularly if those considered to be functioning in the "borderline intelligence" range are included, can affect prevalence rates as can the method used to identify the presence of ID (e.g. IQ tests, educational history, psychiatric opinion). Therefore these filtering effects, sampling biases, location differences and variations in identification will all influence the reported offending rates across studies (Holland, Clare & Mukhopadhyay, 2002).

As we have indicated, these methodological issues occur in the context of significant changes in criminal justice, health and social care policies. Where there had been policies of institutionalisation, individuals are likely to be diverted prior the stage of court proceedings. Where these individuals within institutions presented significant management difficulties, they may have moved on to more secure services within the health and social system resulting in a higher percentage of people with ID in more secure settings. Studies of recidivism rates for offenders with ID suffer from the same methodological and social policy influences (Linhorst, McCutchen & Bennet, 2003). Lund (1990) in a follow-up study of 91 offenders with ID on statutory care orders in Denmark, found a doubling of the incidents of sex offending when comparing sentencing in 1973 to 1983. He suggested that this rise may have been a result of policies of deinstitutionalisation whereby people with ID are no longer detained in hospital for indeterminate lengths of time. He concluded that those with propensities towards offending would be more likely to be living in the community and as a result, were likely to be subject to the normal legal processes should they engage in offending behaviour.

Historically, studies reviewing the outcome and recidivism of offenders with ID who have received services, have a longstanding and respectable record. Wildenskov (1962) followed up 47 men with borderline IQ (IQ 70-79) who had been convicted of a variety of

offences. These individuals had been treated for a period in hospital and were then followed up for 20 years. He found that the re-offending rates were 51% and although one can criticise this early study for a number of methodological limitations, when one considers that his 20 year review goes back to the 1940s, it does show that interest in evaluating such services goes back over at least 60 years. In a review of 423 male patients with ID discharged from high secure hospital, Tong and MacKay (1969) found 40% reconviction rates with follow-up periods of 1-12 years and Walker and McCabe (1973) found that 39% of their sample had re-offended one year after discharge. Gibbens and Robertson (1983) reviewed 250 male offenders with ID who had been on hospital orders. After a follow-up period of 15 years they found that 68% of them had been reconvicted and 41% had three or more reconvictions. This higher rate of re-offending was also noted by Lund (1990) where he found that 72% had re-offended during a 10 year follow-up. These studies review individuals who have been in contact with services through admission to hospital or provision of a statutory care order and it is reasonable to assume that they will have received some form of treatment or management. Given the extra input implied by such service contact, it is disappointing that re-offending rates are consistent with contemporary studies of mainstream offenders who have received prison or probation sentences with no such additional support.

Some more recent studies have reported recidivism rates of offenders with ID who have presumably been subject to the policies of deinstitutionalisation. Klimecki, Jenkinson and Wilson (1994) reported re-offending rates in previous prison inmates with ID, two years after their release. They found that overall re-offending rates were 41.3% with higher rates for less serious offences. However, the lower re-offending rates (around 31%) for sex offences, murder and violent offences were artificially reduced because a number of those individuals were still in prison and therefore unable to re-offend. Linhorst, McCutchen and Bennett (2003) followed up 252 convicted offenders with ID who had completed a case

management community programme and found that 25% who had completed the programme were rearrested within six months and 43% of those who dropped out were rearrested during the same period. Due to lack of controlled studies involving ID and non ID offenders, it is difficult to make direct comparisons of recidivism rates. However, Langan and Levin (2002) found that for a population of 300,000 general offenders, 30% were rearrested within six months while the rearrest rate for 79,000 general offenders on probation was reported to be 43% by Langan and Cunnliff (1992). Therefore, it would appear that based on the limited data available for comparison purposes, recidivism rates for offenders with ID are consistent with those for populations of mainstream offenders. Given these prevalence rates and recidivism rates, we can conclude that there is a significant problem to be addressed and issues of assessment, treatment and management are of paramount importance.

Assessment Issues

One of the difficulties in reviewing this field is that research currently being conducted is extensive and wide ranging covering important social policy issues such as competence to engage with the criminal justice system, assessment of risk for future violence, assessment of mental health issues associated with offending and assessment of offence specific behaviour. This review is therefore selective in its focus.

Competence to engage in the criminal justice process.

One of the basic requirements for the practitioner, researcher or policy maker is whether or not the individual has an intellectual disability and if so, the extent of that disability. Often in the criminal justice process and occasionally for research purposes, there are severe time constraints on the psychological assessment. Furthermore, it is becoming increasingly the case that services may wish to screen all of their offenders to determine the prevalence of ID. At the outset, it should be remembered that all relevant bodies, including The American

Psychological Association, The British Psychological Society, The American Association for Intellectual and Development Disabilities and The World Health Organisation, demand that three criteria must be met for the classification of ID. An IQ or standard score two standard deviations below the mean is only one of these, the two others being significant deficits in adaptive behaviour and onset of a disability during childhood. It is undoubtedly the case that the second of these, assessment of adaptive behaviour, is time consuming and may require input from a third party who knows the client well. Owing to these difficulties, adaptive behaviour tends to be seldom reported in the research literature. However, it is a professional requirement to assess adaptive behaviour and should certainly be reported in court and forensic assessments using an instrument such as the Vineland Adaptive Behaviour Scale (Sparrow et al., 1984).

Hayes (2002) argued that intellectual disability should be identified as early as possible in the criminal justice process. She notes that in several jurisdictions, police have an obligation to provide special assistance to vulnerable suspects during interview and initial detention. There is also a cost of the criminal justice system in aborted cases when, at a later date, it is realised that the individual has ID and previous supportive procedures have not been implemented. She also notes the importance of the human rights of the accused with ID and that these supportive procedures should be in place as early as possible. In a more general discussion of legal issues in relation to jurisdictions in the United States, England and Wales and Australia, Baroff, Gunn and Hayes (2004) conclude “the rights of people with intellectual disabilities are given lip service, while the reality of their treatment within the criminal justice system is often unfair, unjust and harsh” (p. 63).

The Hayes Ability Screening Index (HASI: Hayes, 2000) has been developed in an attempt to address the issue of early identification of the presence of ID. It takes around five minutes to administer and consists of self-report questions, a spelling subtest, a “join the

dots" puzzle and a clock drawing test. On a sample of 567 individuals with and without ID, Hayes (2002) predicted IQ and adaptive behaviour results using the HASI scores. That HASI was 82.4% accurate in detecting true positives and 71.6% accurate in excluding true negatives when compared to another brief intelligence test. However, a careful analysis of Hayes (2002) data reveals that all of the errors were in the same direction and included within the population people who did not have ID. Therefore there was about a 20% over-inclusion rate.

The assessment of competence to stand trial lies at the heart of the judicial process for this client group. Competence includes the ability to take a meaningful or active part in a trial, the capacity to understand the laws of society prohibiting certain actions, the capacity to understand personal responsibility and the ability to express a plea and instruct legal counsel. There are a number of assessments for understanding the procedures of court, mainly based on the criminal justice system in the USA. The Competence Assessment to Stand Trial – Mental Retardation (CAST-MR: Everington & Luckasson, 1992) assesses competence in three areas related to the court system – basic legal concepts, skills to assist defence and understanding of case events. The CAST-MR was used by 45% of psychologists surveyed about practices used when evaluating juvenile competence to stand trial (Ryba, Cooper & Zapf, 2003). Some of the limitations of competency assessment are summarised by Otto et al. (1998) and include the lack of underlying conceptual structure, lack of standardised administration, lack of criterion based scoring and limited norms.

Related to competence is the issue of suggestibility of accused persons with ID during police interview. Gudjonnson (1992) argued that certain categories of people with disabilities were more susceptible to yielding to leading questions and shifting their answers under interrogation by police and, as such, were more suggestible and liable to give a false confession. Clare and Gudjonnson (1993) in a study of 20 ID participants compared with 20

participants of average intellectual ability, found that participants with ID confabulated more and were acquiescent. Everington and Fulero (1999) found that participants with ID were more likely to alter their answers in response to negative feedback. Both studies concluded that people with mild ID were more suggestible under conditions of interrogative interview. However, Beail (2002) reviewed a number of studies which led him to question the link between the test situation and the real life situation. He concluded that the Gudjonnson Suggestibility Scales (Gudjonnson, 1997) which assess suggestibility through memory of a narrative story, may be limited in its applicability to criminal justice proceedings "because the results are based on an examination of semantic memory, whereas police interviews are more concerned with episodic or autobiographical event memory. Also experienced events usually involve multi-modal sensory input, resulting in a more elaborate trace in associative memory" (p. 135). In a test of this hypothesis, White and Willner (2005) assessed 20 individuals with intellectual disability in their ability to recall information from a standard passage when compared to a further 20 who were asked to recall an actual experienced event. They found that participants recalled greater amounts of information and were significantly less suggestible in relation to the experienced situation when compared to the standard verbally presented passage.

Prediction of Risk for Future Offences

A number of studies have emerged in the last few years which suggest that risk prediction in this population, with suitably tailored risk assessments, may be as valid as prediction for mainstream offenders. Lindsay, Elliot and Astell (2004) conducted a study to review the predictive value of a range of previously identified variables in relation to recidivism for 52 male sex offenders with ID. The significant variables to emerge from regression models were generally similar to those variables which had been identified in mainstream studies. However, employment history, criminal lifestyle, criminal companions,

diverse sexual crimes and deviant victim choice, which have been highly associated with recidivism in studies on mainstream offenders, did not emerge as predictor variables. These authors considered that this may be an indication of the way in which professionals making assessments in this field should adjust their perceptions. For example, while few individuals with ID have an employment history, they are likely to have alternative regimes of special educational placement, occupational placement and the like which make up a weekly routine of engagement with society. Non-compliance with this regime did emerge as a significant variable suggesting that individuals with ID should be judged in relation to their peers. It may be that probation officers, used to mainstream offenders and their employment histories, may consider the occupational placement of an ID offender as tedious or boring or they may make allowances for the individual on the basis of their disability. Lindsay (2005) has written of the theoretical and practical importance of engaging offenders with ID with society in the form of interpersonal contacts, occupational/educational placements and so on. Therefore to excuse an offender on the basis of their intellectual disability may be precisely the wrong thing to do. In another report on sexual offenders, Tough (2001) found that the Rapid Risk Assessment for Sex Offender Recidivism (RRASOR: Hanson, 1997) had a medium effect size in predicting recidivism for a cohort of 81 participants. In addition, Harris and Tough (2004) report that they employed the RRASOR as a means of allocating sex offender referrals to their service and by accepting referrals of only low or medium risk, they targeted limited resources on appropriate individuals.

Quinsey, Book and Skilling (2004) conducted a rigorous assessment of the Violence Risk Appraisal Guide (VRAG: Quinsey et al., 1998) in a 16 month follow-up of 58 participants with ID. They found a significant predictive value with a medium effect size and that staff ratings of client behaviour significantly predicted antisocial incidents. Lindsay et al. (2007) have recently made the first comparison of actuarial risk assessments with a mixed

group of 212 violent and sexual offenders with ID. They followed up participants for one year and found that the VRAG was a reasonable predictor for future violent incidents (auc = 0.72), the Static-99 was a reasonable predictor for future sexual incidents (auc = 0.71), and the RM2000 predicted somewhat less well for violent (auc = 0.61) and sexual (auc = 0.62) incidents. Since the RM2000 is relatively simple to use, these authors wrote that research should not be discouraged on this instrument because it has considerable potential utility if it can be found to have similar predictive ability to other assessments. However the study did give validation to both the VRAG and Static-99 for use with this client group. Employing the same samples, Taylor et al. (2007) have reviewed the psychometric properties and predictive validity of the HCR-20 (Webster et al., 1995). They found that inter-rater reliability was acceptable at over 80% agreement for all scales and Cronbach's Alpha was acceptable for the H Scale (0.75) but low for the C and R Scales (0.59 and 0.39 respectively). Exploratory factor analysis found that the H Scale constituted three factors (delinquency, interpersonal functioning and personality disorder) while the C and R Scales made up distinct separate factors. They also found that the R Scale had the highest predictive value in relation to recorded incidents over a period of a year. They concluded that the HCR was a robust instrument for guiding clinical judgement which would help clinicians to reach clinically consistent and defendable decisions.

Quinsey, Book and Skilling (2004) also assessed the value of dynamic/proximal risk indicators. They found that in the month prior to a violent or sexual incident, the dynamic indicator of antisociality was significantly higher than values recorded six months prior to the incident. This, they concluded, provided the persuasive evidence of the value of dynamic assessment since the increase in dynamic risk factors one month prior to the offence could not be attributed to any bias in the light of an offence occurring. Employing a similar design, Lindsay et al. (2004) tested the Dynamic Risk Assessment and Management System

(DRAMS) on which staff made daily ratings of clients' mood, antisocial behaviour, aberrant thoughts, psychotic symptoms, self-regulation, therapeutic alliance, compliance with routine and renewal of emotional relationships. Ratings were compared between those taken on the day of incident, the day prior to the incident and a further control day at least seven days distant from an incident. Although there were only five clients with full data sets on appropriate days, there were significant increases in ratings for the day prior to the incident for mood, antisocial behaviour, aberrant thoughts and DRAMS total score. Steptoe et al. (2007) conducted a larger study on the predictive utility of the DRAMS with 23 forensic patients in a high secure setting. Predictions were made against independently collected incident data and concurrent validity was assessed against the Ward Anger Rating Scale (WARS: Novaco & Taylor, 2004). The sections of mood, antisocial behaviour and intolerance/agreeableness had significant predictive values with incidents (auc > 0.70) and there were highly significant differences, with large effect sizes, between assessments taken one or two days prior to an incident and control assessments conducted at least seven days from an incident. Therefore, dynamic risk assessment appears to perform well in both concurrent and predictive validity in relation to offenders with ID.

Further developments have been conducted using a range of assessments. Hogue et al. (2007) evaluated the utility of the Emotional Problem Scale (EPS: Prout & Strohmer, 1991) with 172 offenders with ID from a range of security settings. The EPS is generally considered to be a dynamic assessment of emotion and self-concept and these authors, using the assessment on only a single occasion, found that the derived scores successfully predicted recorded incidents over a period of a year. Morrissey et al. (2006, 2007) have investigated the utility, discriminative validity and predictive validity of the Psychopathy Checklist – Revised (PCL-R: Hare, 1991) predicted both good response to treatment and positive moves from high to medium secure conditions, both within two years of assessment. Therefore

there are a number of studies, using a range of assessments, some of which are developed for this client group, which attest to the utility and validity of risk prediction for offenders with ID.

Assessment of Offence Specific Behaviour and Attitudes

A number of studies have been conducted on the assessment of offence specific variables, the majority of which have been on interpersonal problem solving and offence related thinking, anger and aggression and sexual offending. Lindsay (2005) has stressed the importance of promoting social contact, interpersonal relationships and community identification in sex offenders with ID both from a practical and theoretical standpoint. Such increased social inclusion allows others to monitor the individual offender and also ensures that their views and attitudes are constantly being adjusted and even challenged by ordinary social contact. In a recent study, Steptoe et al. (2006) reported that although the sex offender participants had the same opportunities as other participants, they seemed to choose to take advantage of these opportunities less often than the control participants. In addition, they appeared to have more impoverished relationships than control participants but reported being quite happy with a more restricted range of relationships. This led to the conclusion that the promotion of appropriate relationships, contact with the community and pro-social influences are important areas for assessment and treatment.

Some of the most interesting work investigating issues related to interpersonal problem solving and ID combines this with perception and attribution of aggressive intent. Basquill et al. (2004), in a study of 45 participants, found that when compared to non-aggressive participants, aggressive individuals made significantly more errors in their cognitive appraisal of interpersonal situations and were significantly less accurate in identifying interpersonal intent. They felt that the findings pointed to the presence of an attributional bias related to perception of aggression and hostility. Aggressive participants

were also poorer in relation to social problem solving, regardless of the type of problem presented. While this research suggests that some difficulties in interpersonal problem solving may be related to aggression in this client group, the work of Jahoda et al. (2006) contradicts these findings. In a comparison of aggressive and non-aggressive individuals, they found that the former did not have deficits in the attribution of emotion. Indeed, the aggressive participants were superior in recognising hostile intent in angry protagonists and they concluded that "this may be indicative of a greater emotional sensitivity to provocation and could support the crucial mediating role that anger plays in aggressiveness" (p. 86). This research suggests that an emphasis on self-regulation and interpersonal problem solving in provocation situations is likely to be productive and relevant to the particular difficulties experienced by these clients.

Hamilton et al. (2006) have piloted the use of the Social Problem Solving Inventory – Revised (SPSI: D'Zurilla et al., 2000) with offenders with ID and found that if it is suitably modified it can be used reliably. In addition, they conducted a preliminary factor analysis on the 25 items and found a fairly logical and reasonably simple factor structure which conformed to the original development of the test. The SPSI has been widely used in the evaluation of mainstream offender programmes (McMurran et al., 2001) and in their pilot study, Hamilton et al. (2006) found three factors emerged accounting for 63% of the variance: negative/avoidant style, positive/rational style and impulsive problem solving style. Therefore there is emerging evidence to suggest that interpersonal relationships and interpersonal attributions may be crucial in the perpetration of offending incidents in this client group and that problem solving style may be assessed using a suitably adapted inventory.

The work on social problem solving and attribution has been related to aggression and violent offences and this field has been researched with greater frequency than others. Taylor

(2002) has pointed out the significant impact which client aggression has on work related factors for staff. It is therefore fitting that hostility and anger in individuals with ID is an area which has attracted a reasonable amount of research when compared to other offence related factors. Novaco and Taylor (2004) evaluated the reliability and validity of the Novaco Anger Scale (NAS: Novaco, 2003) with 129 male forensic in-patients with ID. In this study, self-report measures of anger disposition, anger reactivity and informant related anger attributes were investigated with regard to their internal consistency, stability and concurrent and predictive validity. The NAS showed substantial intercorrelations with other measures of anger providing evidence for the concurrent validity of the instruments. WARS staff ratings for patient anger, based on ward observations, were found to have high internal consistency and to correlate significantly with the patient's anger self-reports. In addition, they recorded assaultive behaviour in hospital and found that participant's self-reports on anger were significantly related to incidents. The NAS total score was found to be significantly predictive of whether the patient had physically assaulted others in the hospital and the total number of physical assaults. This relationship held true even when age, length of stay, IQ, violent offence history and personality were held constant.

Taylor et al. (2004) developed the Imaginal Provocation Test (IPT) as an individual anger assessment procedure that taps key elements of the experience and expression of anger and is easily modifiable for idiographic use. With 48 participants, they found that the IPT had good internal reliability, reasonable concurrent validity with the NAS and showed responsiveness to anger management treatment. Alder and Lindsay (2007) also produced a provocation inventory which is easily accessible and usable. In a study of 114 participants with ID, a five factor solution emerged including threat to self-esteem, locus of control, resentment, frustration and disappointment. The most important factor was threat to self-

esteem which has also been found as a fundamental schema in people with ID who have difficulties with aggression by Jahoda et al. (2006).

Although hostile attitude and anger emerged consistently from studies assessing risk for future violent and sexual incidents (Quinsey, Book & Skilling, 2004) it is interesting that sex offenders with ID tend to show lower levels of anger than other offenders with ID. Lindsay et al. (2006) in a study of 247 offenders with ID, found that sex offenders showed significantly lower levels of anger and aggression than other male offenders or female offenders. However, where anger is present, it may be a particularly potent dynamic risk factor.

In mainstream sex offender work, inappropriate sexual preference and sexual drive are considered primary motivation for the perpetration of sexual offences (Harris et al., 2003). For offenders with ID, some of the main inferences can be drawn from studies which have noted previous sexual offending and patterns of offending in cohorts of referred clients. Day (1994) reported in a study of 31 sexual offenders referred to his clinic that all of them had previously recorded incidents of inappropriate sexual behaviour or sexual offences. Lindsay et al. (2004) found that for 62% of referrals there was either a previous conviction for a sexual offence or clear documented evidence of sexual abuse having been perpetrated by that individual. When one considers that incidents of sexual abuse are met with a great deal of criticism towards the perpetrator on the part of care givers and perhaps the victim's family, this would be a considerable disincentive to further commission of additional sex offences and one might conclude that sexual drive and sexual preference are significant factors in over-riding the suppression effects of previous criticism.

Although not directly relevant, Blanchard et al. (1999) investigated patterns of sexual offending in 950 participants. They found that those sex offenders with lower intellectual functioning were more likely to commit offences against younger children and male children.

The proportion of variance was not high but this information constitutes evidence that inappropriate sexual preference may play at least some role in this client group. Cantor et al. (2005) presented a detailed meta-analytic study of previous reports which have included reliable data on IQ and sex offending. In a reanalysis of data on 25,146 sex offenders and controls, they found a robust relationship between lower IQ and sexual offending but specifically, lower IQ and paedophilia. Again, the proportion of variance was not high but they hypothesised that "a third variable – a perturbation of prenatal or childhood brain development – produces both paedophilia and low IQ" (p. 565). This information on the relationship between low IQ and sexual preference presents more persuasive evidence than the essentially anecdotal accounts of previous authors (e.g. Day, 1994; Lindsay et al., 2004). Therefore sexual drive and sexual preference are likely to be important issues in assessment and treatment.

Although there appears to be more recent recognition of the importance of sexual preference, the first hypothesis advanced to account for inappropriate sexual behaviour in men with ID was that lack of sexual knowledge might lead to inappropriate sexual contact precisely because the individual is unaware of the means to establish appropriate interpersonal and sexual relationships. This hypothesis of "counterfeit deviance" was first posited by Hingsburger, Griffiths and Quinsey (1991). A number of studies have emerged recently testing this hypothesis. Michie et al. (2006) argued that a consequence of this hypothesis is that men who have committed inappropriate sexual behaviour or sexual offences should have poorer sexual knowledge than those who have not. They conducted two studies in separate centres and in both studies found that when there were significant differences between groups, the sex offenders showed higher levels of sexual knowledge than the non-sexual offenders. They then pooled the data for all 33 sex offenders and 35 control participants and found the significant positive correlation between IQ and sexual knowledge

for the control group (r = 0.71) but no significant relationship between IQ and sexual knowledge for the sex offender cohort (r = 0.17). They presented two possible reasons for this finding. Firstly, by definition, all of the sex offender cohort have some experience of sexual interaction and it is unlikely that these experiences of sexual interaction are random. One might therefore conclude that these sex offenders have given some thought and attention to sexuality at least in the period prior to the perpetration of the incident. Secondly, it is possible that these individuals have a developmental history of increased sexual arousal. This in turn may have led to selective attention and interest in sexual information gained from informal sources such as newspapers and television. These behavioural and informal educational experiences would lead to a higher level of sexual knowledge suggesting an interactive effect between sexual preference and knowledge acquisition.

Talbot and Langdon (2006) also compared sexual knowledge in groups of sex offenders with ID and groups of non-offenders with ID. They found that sex offenders who had not received treatment showed no deficits in sexual knowledge when compared to non-offenders and concluded that limited sexual knowledge may not be a factor which increases the risk of committing a future sexual offence. Lunsky et al. (2007) conducted a more sensitive analysis of this issue by splitting the sexual offenders into a group of 27 participants who had committed repeated or forced offences and 16 participants who had committed inappropriate sexual behaviour such as public masturbation or inappropriate touching. They also found that the sex offender participants had higher levels of sexual knowledge than a matched group of non-offenders but the persistent, forceful offenders had a greater level of knowledge and more liberal attitudes than the inappropriate offenders who had similarly conservative attitudes to the control group. They concluded that the counterfeit deviance hypothesis better accounted for the inappropriate offenders.

It is generally recognised that cognitive distortions which justify, minimise or mitigate sexual offences are crucial in the offending cycle of perpetrators. A number of assessments have been developed to assess these cognitive distortions and these developments have spread to the field of ID. Kolton, Boer and Boer (2001) employed the Abel and Becker Cognition Scale (ABCS) with 89 sex offenders with ID. They found that the response options of the test needed to be changed to a dichotomous assessment to reduce extremity bias and the revised assessment preserved the psychometric integrity of the original test. Keeling, Rose and Beech (2007) revised the Victim Empathy Distortion Scale (VES: Beckett & Fisher, 1994) for use with special needs sexual offenders (mean IQ 71). They found that the adapted scale correlated significantly with the original (0.78), had good internal consistency (alpha = 0.77) and good test/re-test reliability (r = 0.88). It also had good convergent validity with a further test of empathy. The VES was also used in an evaluation of sex offender pathways by Langdon, Maxted and Murphy (2007) where they found that it did not differentiate between different types of sexual offenders with ID.

In a development specific to sex offenders with ID, Lindsay, Whitefield and Carson (2007) reported on the Questionnaire on Attitudes Consistent with Sexual Offences (QACSO). The QACSO contains a series of scales which evaluate attitudes across a range of different types of offences including rape, voyeurism, exhibitionism, dating abuse, homosexual assault, offences against children and stalking. In a study comparing sex offenders, non sex offenders, non offenders (all with ID) and non ID controls, they reported that each scale had good reliability, discriminant validity and internal consistency. Lindsay et al. (2006) also found that the rape and offences against children scales in particular, discriminated between offenders against adults and offenders against children in the hypothesised directions with offenders against adults having significantly higher scores on the rape scale and significantly lower scores on the offences against children scale than child

molesters. Langdon and Talbot (2006) also used the QACSO to assess levels of cognitive distortions in sex offenders and found that this cohort had significantly higher levels of cognitive distortions than non-offenders.

Conclusions on Assessment

A number of assessment instruments have been developed to help professionals consider an individual's competence to engage with the criminal justice process. Our knowledge on static risk factors has begun to develop considerably and there have now been a few studies on the validity of risk assessments for this client group. These studies have found predictive results that are broadly consistent with the literature on mainstream offending. Studies on dynamic risk factors have confirmed their relevance in the prediction of incidents and a number of reports have demonstrated the reliability and validity of assessments of offence related issues notably hostility and cognitive distortions. There have also been recent important developments in research on the relevance of interpersonal factors in the development of offending incidents.

Treatment of Offenders

Violence and aggression

By far the most common treatment approach for violent and aggressive behaviour has been behavioural intervention and several reviews have supported the effectiveness of these approaches (e.g. Carr et al., 2000). However, one difficulty in employing these approaches with offenders is that they generally require contingencies to be organised in a consistent and reliable fashion, in a controlled institutional environment with reasonable staff ratios. Such conditions contrast with those in services for offenders with ID who may be relatively high functioning, display low frequency yet very serious aggression and violence and live in

relatively uncontrolled environments (e.g. community settings). In response to the need for more "self-actualising" treatments that promote generalised self-regulation of anger and aggression, several authors have employed cognitive behavioural treatments based on the approach developed by Novaco (1975, 1994). This approach employs cognitive restructuring, arousal reduction and behavioural skills training as well as the stress inoculation paradigm (Meichenbaum, 1985).

Taylor (2002) and Taylor and Novaco (2005) have reviewed numerous case and case series studies and uncontrolled group anger treatment studies involving individual and group therapy formats incorporating combinations of cognitive behavioural techniques including relaxation and arousal reduction, skills training and self-monitoring that have produced good outcomes in reducing anger and aggression which have been maintained at follow-up. Several case studies have reported successful outcomes in people with histories of aggressive behaviour in hospital and community settings (Murphy & Clare, 1991; Black & Novaco, 1993; Rose & West, 1999). These case series have extended to demonstrations of the effectiveness of cognitive behavioural anger treatments with violent offenders with ID living in the community and involved with the criminal justice system (Allan et al., 2001; Lindsay et al., 2003). In these studies improvements have been maintained in follow-ups for up to 10 years. Lindsay et al. (2004) reported a controlled study of cognitive behavioural anger treatment for individuals living in the community and referred by the courts or criminal justice services. Several outcome measures were used including a provocation inventory, provocation roleplays and self-report diaries over a follow-up period of 15 months. Aggressive incidents and re-offences were also recorded for both the treatment group and the waiting list control group. There was significant improvements in anger control on all measures with significant differences between the treatment and control groups. In addition, the treatment group recorded significantly fewer incidents of assault and violence at the post-

treatment assessment point (14% v 45%). There was evidence that anger management treatment had a significant impact on the number of aggressive incidents recorded in these participants in addition to improvements in the assessed psychological variables.

It should be noted that in all studies on the treatment of anger and violence (e.g. Taylor and Novaco, 2005) it is always maintained that feelings of anger are appropriate in certain situations. In a series of waiting list controlled studies, Taylor et al. (2002, 2004, 2005) have evaluated individual cognitive behavioural anger treatment with detained male patients who have mild-borderline ID and significant violent histories. Taylor et al. (2002) reported a pilot study involving 20 detained male patients using an 18 session cognitive behavioural treatment comprising of six sessions of a psycho-educational and motivational preparatory phase, followed by a 12 session treatment phase based on individual formulation of each participant's anger problems and needs that followed the cognitive behavioural stages of cognitive preparation, skills acquisition, skills rehearsal and practice *in vivo.* Participant's self-report of anger intensity to provocation was significantly lower following the intervention in a treatment condition when compared with a waiting list control. There was also limited evidence for the effectiveness of treatment provided by staff ratings of patient anger disposition and coping behaviour post-treatment. Taylor et al. (2005) reported on a larger scale study with 20 participants allocated to the treatment condition while 20 served as waiting list controls. Scores on self-reported anger disposition and reactivity indices significantly improved following the intervention in the treatment group compared with scores for the control group and these differences were maintained at a four month follow-up.

Fire-Setting

As has been noted earlier, while some authors have suggested that arson is over-represented in offenders with ID, more recent evidence suggests that prevalence rates may depend on the study setting. However, it does remain an important problem and there have been a number

of case studies reported on the treatment of fire-setters. Rice and Chaplain (1979) employed a social skills intervention with two groups of fire-setters, one of which was functioning in the mild-borderline ID range. Following treatment, both groups were reported to have been improved and none of the participants had re-offended at 12 months follow-up. Clare et al. (1992) reported a case study involving a man with mild ID who had prior convictions for arson. Following a multi-modal behavioural control and skills training intervention, significant improvements were recorded and the client was discharged to the community with no re-offending at 30 months follow-up.

Taylor et al. (2002b) investigated the outcome following treatment for 14 men and women with ID and arson convictions. Significant improvements were found in fire specific, anger and self-esteem measures. Taylor et al. (2004b) reported a further case series of four detained men with ID and convictions for arson offences. They employed a 40 session cognitive behavioural, group based intervention that involved work on offence cycles, education about the costs associated with setting fires, training of skills to enhance future coping with emotional problems and relapse prevention plans. All participants showed a high level of motivation and improvements in attitudes with regard to personal responsibility, victim issues and awareness of risk factors associated with fire-setting. Taylor et al. (2006) presented a further series of case studies on six women with mild-borderline ID and histories of fire-setting who received a cognitive behavioural group intervention similar to that described by Taylor et al. (2004b). There were improvements on all measures related to fire specific treatment targets and all but one of the group participants had been discharged to community placements at two year follow-up. There were no reports of participants setting any fires or engaging in fire risk related behaviour throughout the follow-up period. In all of these Taylor et al. studies, significant improvements were seen on measures of anger (the NAS) suggesting that anger or resentment may be a significant motivation for fire-setting

and, as such an important target for treatment. The other significant motivating factor identified by Taylor et al. (2006) was peer approval indicating that this also is an important target for intervention through social skills training in alternative ways to generate peer approval.

Sexual offending and inappropriate sexual behaviour.

As with work on anger treatment, until relatively recently behavioural management approaches have been the most common psychological treatments for the management of sexual offending (Plaud et al., 2000). These approaches advance behavioural competency in daily living skills, general interpersonal and educational skills and specialised behavioural skills related to sexuality and offending. For example, Griffiths, Quinsey and Hingsburger (1989) developed a comprehensive behavioural management regime for sex offenders with ID. Their programme included addressing deviant sexual behaviour through education, training social competence and improving relationship skills, reviewing relapse prevention through alerting support staff and training on issues of responsibility. In a review of 30 cases, they reported no re-offending and described a number of successful case studies to illustrate their methods. Others have also described similar positive outcomes with behavioural management approaches (Grubb-Blubaugh, Shire & Balser, 1994; Plaud et al., 2000).

Recent developments have employed cognitive and problem solving techniques which, in mainstream offenders, Hanson et al. (2002) found to produce greater reductions in recidivism rates than treatments which employed other techniques including behavioural approaches. A central assumption in cognitive therapy is that sex offenders may hold a number of cognitive distortions regarding sexuality which support the perpetration of sexual offences. Cognitive distortions fall into a number of categories including mitigation of responsibility, denial of harm to the victim, denial of intent to offend, thoughts of entitlement, mitigation through the claim of an altered state and complete denial that an offence occurred.

There have been several reports which considered these cognitive processes during treatment of sexual offenders with ID. O'Conner (1996) developed a problem solving intervention for 13 adult male sex offenders involving consideration of a range of risky situations in which offenders had to develop safe solutions for both themselves and the potential victim. She reported positive results from the intervention with most participants achieving increased community access.

Support for the centrality of cognitive distortions in the offence process came from a qualitative study of nine male sex offenders with ID by Courtney, Rose and Mason (2006). using grounded theory techniques. In the analysis of interviews with participants, they concluded that all aspects of the offence process were linked to offender attitudes and beliefs such as denial of the offence, blaming others and seeing themselves as the victim. Therefore a crucial aspect of treatment is to explore these aspects of denial and other cognitive distortions. Lindsay et al. (1998a, b, c) reported a series of case studies on offenders with ID using a cognitive behavioural intervention in which various forms of denial and mitigation of the offence were challenged over treatment periods of up to three years. Across these studies, participants consistently reported changes in cognitions during treatment and there was evidence of low re-offending rates 4-7 years following initial conviction. Each of these papers gave examples of the way in which cognitive distortions are elicited and challenged during treatment and measures of cognitive distortions found reductions which maintained for at least one year follow-up.

Rose et al. (2002) reported on a 16 week cognitive behavioural treatment for five participants who had perpetrated sexual abuse. They assessed locus of control, cognitive distortions, victim empathy and knowledge of the law and the only significant change was a greater focus on external locus of control after the intervention. These authors reported no re-offending at one year follow-up. The difficulties associated with treatment evaluations in this

client group is illustrated by a treatment study of six sex offenders with ID by Craig, Stringer and Moss (2006). Following a seven month treatment programme incorporating cognitive behavioural aspects and sex education, they found no significant improvements on any measure including assessments of sexual knowledge. They also found no further incidents of sexual offending during a 12 month follow-up but reported that all participants received 24 hour supervision and had little opportunity to offend. Therefore, where individuals are continually supervised, the value of follow-up data will be compromised.

A further difficulty in the field is that those treatment comparisons which have been conducted have fallen well short of the standards required for experimental rigour. Lindsay and Smith (1998) compared seven individuals who had been in treatment for two or more years with another group of seven who had been in treatment for less than one year. The comparisons were serendipitous in that time and treatment reflected the probation sentences delivered by the court. Those individuals who had been in treatment for less than one year showed significantly poorer progress and were more likely to re-offend than those treated for at least two years and they concluded that shorter treatment periods may be of limited value for this client group. Keeling, Rose and Beech (2007) conducted another comparison of convenience between 11 “special needs” offenders and 11 mainstream offenders matched on level of risk, victim, sex, offence type and age. The authors note a number of limitations including the fact that “special needs” was not synonymous with ID and, as a result they were unable to verify the intellectual differences between the mainstream and special needs populations; the fact that the treatments were not directly comparable and assessments for the special needs population were modified. There were few differences between groups post-treatment but follow-up data identified that none of the offenders (neither completers nor non-completers) in either group committed further sexual offences, although completers had a longer average post-release period. Murphy and Sinclair (2006) reported on the cognitive

behavioural treatment of 52 men who had sexually abusive behaviour and mild ID. Treatment groups ran over a period of one year and there were significant improvements in sexual knowledge, victim empathy and cognitive distortions at post-treatment assessment. There were also reductions in sexually abusive behaviour at six month follow-up. However, although the study was designed to include control participants, it was not possible to recruit participants for a range of unforeseen circumstances. Therefore, in these studies, the control comparisons have not been randomised, have been controls of convenience or researchers have not been able to gather sufficient participants.

A further series of comparisons have been made by Lindsay and colleagues between individuals who have committed sexual offences and other types of offenders with ID. Lindsay, Smith et al. (2004) compared 106 men who had committed sexual offences or sexually abusive incidents with 78 men who had committed other types of offences or serious incidents. There was a significantly higher rate of re-offending in the non-sex offender cohort (51%) when compared to the sex offender cohort (19%). In a subsequent, more comprehensive evaluation, Lindsay, Steele, et al. (2006) compared 121 sex offenders with 105 other types of male offenders and 21 female offenders. Re-offending rates were reported for up to 12 years after the index offence. There were no significant differences between the groups on IQ and the sex offender cohort tended to be older than the other two cohorts. Female offenders had higher rates of mental illness although rates for male cohorts were generally high at around 32%. These high rates of mental illness and sex offender cohorts have been found by other researchers (Day, 1994). The differences in re-offending rates between the three groups was highly significant with rates of 23.9% for male sex offenders, 19% for female offenders and 59% for other types of male offenders. The significant differences were evident for every year of follow-up except year 1. These authors also investigated harm reduction by following up the number of offences committed by recidivists

and found that for those who re-offended, the number of offences following treatment, up to 12 years, was a quarter to a third of those recorded before treatment indicating a considerable amount of harm reduction as a result of intervention. Therefore, although these treatment comparisons have been less than satisfactory in terms of their experimental design, there are some indications that treatment interventions may significantly reduce recidivism rates in sex offenders with ID. Where recidivism does occur, for all types of offenders with ID, treatment may result in fewer abusive incidents with significant amounts of harm reduction. These outcomes are considerably more positive than those reported earlier by studies reviewing recidivism and offenders with ID.

Conclusions

As with the work on assessment, there have been a number of significant developments in the treatment of offenders with ID. The most persuasive evidence has been in the field of anger treatment where structured programmes have been published and evaluated by a number of controlled comparisons. The positive outcomes have included psychological factors as well as records of aggressive incidents at up to 12 years follow-up. Similarly, with sexual offenders there have been significant advances in assessment which have allowed comparisons to be made pre and post intervention which has generally employed cognitive behavioural techniques to address cycles of offending and cognitive distortions. As a result, the positive evaluation outcomes for violence can be regarded with some confidence and suggest that such treatment programmes should be incorporated into the general management of violent and aggressive offenders with ID. For sex offenders, group comparison studies have been comparisons of convenience but have generally produced optimistic outcomes with lower recidivism rates over lengthy follow-up periods. However because of the considerable methodological shortcomings, these results should be treated

with critical caution. There have also been some advances in the consideration of offence related issues and social problem solving with some initial developments in assessment. Case study reports for fire-setters with ID have all provided promising outcomes and this field, particularly, requires some controlled evaluation of these treatment programmes.

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