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Risk factors for offending behaviour in adults with an intellectual disability

Lofthouse, Rachael

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Risk Factors for Offending Behaviour in Adults with an Intellectual Disability

Rachael Elizabeth Lofthouse

A thesis submitted to the School of Psychology, Bangor University, in partial fulfilment of the requirements of the degree of Doctor of Philosophy

March 2013

Declarations

This work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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Summary

Research on risk assessment with offenders with an intellectual disability (ID) has been scarce; the overwhelming majority of risk tools available are developed for mainstream populations. This thesis is primarily concerned with understanding static and dynamic risk factors for physical and sexual violence among offenders with an ID. This thesis described a series of quantitative and qualitative studies investigating the utility and predictive accuracy of risk assessments among this population and culminated in the development of a new ID focused risk tool.

In Chapter 1, a brief introduction outlined current research and practice regarding risk assessment and prediction in the ID field and identified significant limitations in the evidence base. In Study 1 (Chapter 2) a dynamic risk assessment (ARMIDILO-S) for sexual offenders with an ID resulted in the best prediction of sexual reoffending when compared with established static risk assessment tools (STATIC-99 and VRAG) developed for mainstream offenders. Study 2 (Chapter 3) adopted a public health model of understanding how static and dynamic risk factors 'work together' to predict violent behaviour. The findings suggested that the two approaches essentially measure similar underlying risk which has important implications for the future of risk assessment procedures with this population. Offenders with an ID were the focus of a qualitative study (Chapter 4) in which it was found that environmental factors featured heavily in the participant's explanations of their own aggressive behaviour. The final empirical study (Chapter 5) details the construction and initial validation of a new dynamic risk measure: Current risk of Violence (CuRV). The CuRV demonstrated promising reliability and validity as an assessment of aggression. Finally, in Chapter 6, findings from the four empirical studies were discussed in relation to their contribution to the literature, theoretical and clinical implications, methodological limitations, and potential avenues for future research.

Chapter 1 – Introduction: A brief introduction outlining the current research and practice regarding risk assessment and prediction in the ID field.

It is estimated that 2% of the UK population have an ID (Emerson, 2008). As with all groups in society, a small percentage of individuals with an ID commit illegal acts or engage in anti social behaviour (Jones, 2007). These are a complex group of individuals and are considered to be one of the most stigmatised populations in society (Raina & Lunskey, 2010). Engaging in offending type behaviours has serious repercussions for the individual and the people involved in his/her care as well as for wider society.

Assessment of risk for future offences has emerged as one of the most important fields in forensic psychology. There is a considerable amount of research relating to the assessment and prediction of risk among mainstream offenders (see meta analytic reviews by Hanson & Morton-Bourgon, 2005, 2009). Culminating in over 120 different structured tools to predict violent and sexual offending behaviours (Singh, Grann, & Fazel, 2011). One of the key findings to emerge from these reviews was that a single risk factor cannot effectively predict reoffending in isolation. It is widely acknowledged that professionals must combine potential risk factors in an overall assessment of risk (Harris & Hanson, 2010 p289).

In comparison to the mainstream forensic literature, there are a small number of studies examining risk assessment and prediction among offenders with an ID. Existing analysis focused mainly on the evaluation of mainstream tools when applied to offenders with an ID. There is currently a lack of research to identify potential variables for inclusion in an ID specific assessment of risk. Identifying variables associated with reoffending in this group is essential for predicting and preventing the future occurrence of offending behaviours and informing risk management and treatment approaches (Holland, 2004).

The purpose of this chapter is to introduce the research associated with predicting risk of reoffending in individuals with an ID. In particular, to understand static and dynamic risk factors for sexual offending and aggressive behaviour. The methodological and conceptual problems faced by clinicians and researchers attempting to quantify risk and predict future reoffending will also be introduced. The thesis structure, and background to the empirical studies presented will be described at the end of this chapter.

Background

A number of terms are used for “Intellectual Disability (ID)” with varying levels of acceptability. These terms include ‘learning disability’ and ‘mental retardation’. Regardless of the term adopted, the same three criteria are required to be met before an ID can be identified or diagnosed:

- sub average general intelligence
- impairments in social or adaptive behaviour
- onset before the age of 18 years

‘Sub average’ intelligence is defined as having intelligence quotient (IQ) of 70 or under, when assessed using standardised tests. The full scale IQ is used to categorise individuals into mild ID (IQ 50-69), moderate (IQ 35-49), severe (20-34) and profound (20 & below) (Kearns, 2001).

The international scientific community adopt the term intellectual disability, whereas, health and social care services within the UK commonly adopt learning disability or developmental disability. This thesis will use the term intellectual disability in line with the international literature. The term was also preferred over its

UK synonym of 'learning disabilities', because the latter denotes different conditions in different countries.

At the end of the nineteenth century and beginning of twentieth century it was believed by some that there was a causal relationship between "feeble mindedness" and criminality. This myth was perpetuated by Social Darwinism and the eugenics movement. Certain social policies at this time dictated that for the protection of society, individuals with an ID should be segregated. This led to the rapid expansion of institutions for the detention of people with an ID (Lindsay, Elliot, & Astell, 2004).

Negative opinions toward people with an ID persisted until the introduction of policies of deinstitutionalisation in the mid-1980's (Lambrick, 2003). In the twenty first century, there has been a cultural shift toward the promotion of choice, independence and social inclusion of people with an ID and disabled people in general (e.g., UN Convention on the Rights of Persons with Disabilities (UNCRPD)). Within the UK, government policy (e.g., *Fulfilling the Promises*, National Assembly for Wales, 1999; *The same as you?*, Scottish Government, 2000; *Valuing People Now*, Department of Health, England, 2009) recognises that some individuals with an ID, including those who have offended, are the least often heard and most often excluded. This is reflected in the paucity of research attention given to offenders with an ID in comparison to offenders without an ID. Research into the prediction of violent and sexual offending has been particularly slow to develop (Lindsay & Beail, 2004).

Prevalence of offending by individuals with ID

It is widely accepted in the criminological literature that officially recorded offending rates offer a limited insight into actual prevalence rates (Holland, Clare, & Mukhopadhyay, 2002). Previous studies on individuals with an ID tend to focus on the prevalence of ID amongst offenders in prisons (Hayes, Shackell, Mottram & Lancaster, 2007; Holland & Persson, 2011; Jones & Talbott, 2010) and other stages of the criminal justice system (CJS) or offending by individuals known to ID services (Holland, Clare, & Mukhopadhyay, 2002). Inconsistencies with the definition of and threshold for ID, and comparisons between individuals within different settings result in varying prevalence rates (Lindsay, Hastings, Griffiths, & Hayes, 2007). Average estimates of the prevalence of ID amongst the general offending population range from 1-10% (Loucks, 2006).

Researcher interest has focused on subgroups of offenders with ID, in particular aggressive and sexual offenders (Lindsay et al., 2012). However, there is relatively little research assessing the prevalence of aggression among individuals with mild ID in forensic services. Novaco and Taylor (2004) found the prevalence of physically assaultive behaviour following admission to a forensic NHS service in one area of England was 46.5%.

In the public mind sexual offending is considered to be a particularly heinous crime and is likely to receive increased publicity, particularly crimes against children and women (Lambrick, 2003). In contrast to a well established non ID evidence base, sexual offending by individuals with an ID has only recently received clinicians' and researchers' attention (Craig, 2010). As with other types of offending by

individuals with an ID, prevalence rates are difficult to establish. Hayes (2002) suggests prevalence rates for sexual offences by people with an ID are slightly higher than those found in the general population. However, Lindsay, Hastings, and Beech (2011) caution that higher prevalence rates are due to the inclusion of individuals with an IQ in the borderline ID range. Researchers have found lower rates of sexual reoffending by individuals with an ID compared to other types of offences (Gray, Fitzgerald, Taylor, MacCulloch, & Snowden, 2007; Lindsay, Steele, Smith, Quinn, & Allan, 2006).

Although accurate prevalence rates of violent behaviour are difficult to establish, the impact of violence, both sexual and non sexual, is a major clinical and societal concern. Violence incurs great cost from both a human and monetary perspective. In addition to the obvious detrimental personal effects for the victim, the effects of violence are far reaching. Significant impairments to the perpetrators' health and quality of life (Emerson & Einfeld, 2011) can result from the negative impact on self esteem, loss of liberty, restrictions placed on the ability to access the community, and problems maintaining social networks (Cooper et al., 2009). Furthermore, violent behaviour can preclude effective treatment and rehabilitation of individuals in forensic settings.

Significant costs are also incurred by those providing services to offenders. In the UK, direct costs resulting from violence are estimated to be £69 million per annum (National Audit office, 2003). Violence is also a major occupational health hazard for support staff. In addition to physical injury received through restraining aggressive individuals or as the victim of aggression (Allen, Hawkins & Cooper.,

2004; Jones, 2007), violence impacts on the emotional well-being of support staff (Hastings, 2002).

Management of offenders with an ID

Prior to deinstitutionalisation, it was likely that many offending behaviours including violence were overlooked by staff in ID services (Turk & Brown, 1993) and the criminal justice system (Swanson & Garwick, 1990) particularly if offending occurred in a forensic setting (Green, Gray, & Wilner, 2002). The process of deinstitutionalisation brought about a change in the way individuals with an ID who offended were treated in the UK. A reduction in institutional places to divert individuals out of the CJS meant more people were being processed through the CJS. This in turn increased the number of individuals who remained in the community under court disposal or community punishment or supervision orders¹ (Lindsay et al., 2006). In line with the principles of normalisation (Wolfensberger, 1972), where appropriate, individuals are increasingly encouraged to answer criminal charges following normal legal process (Carson et al., 2010).

Having an ID is likely to interfere with the individual's ability to cope at all stages in the CJS (Loucks, 2006). It also has serious implications for the right to a fair hearing, as protected by the common law and by Article 6 of the ECHR (Loucks, & Talbot, 2007). Following a review of the experiences of individuals with an ID in England CJS, Lord Bradley (DoH, 2008) recommended that individuals with an ID should be identified and assessed at the earliest opportunity, to identify how and where individuals will be most appropriately treated. In addition, community

¹ Community Treatment Orders were introduced by the Mental Health Act 2007

sentences should be used as an alternative to custody where possible. For those individuals who commit serious offences or require the security of a prison, they are likely to be diverted into a secure hospital under the Mental Health Act in England and Wales (Green et al., 2002).

The Mental Health Act 2007

The law in the England and Wales considers intellectual disability as “mental disorder” defined by the Mental Health Act (MHA) 1983 (as amended by the Mental Health Act 2007) where mental disorder is defined very broadly as “any disorder or disability of mind”. The MHA 1983 was, in part, designed to permit the compulsory detention and treatment of those individuals considered to be mentally disordered and in need of care and treatment, without the individual’s consent. Thus, it is a vital part of managing risk in this population and providing structure for therapeutic change (Yacoub & Hall, 2009).

If an individual with an ID is accused of a criminal offence, he or she can be managed under the Act as a voluntary patient or under a civil section (e.g., section 3). Part 3 of the Act concerns the CJS or forensic orders (e.g., hospital orders and restriction orders), it contains powers to make guardianship orders for those living in the community who need help or supervision, and to transfer prisoners to hospital for a period of treatment (section 47 & 48). Following a period of compulsory treatment in hospital, section 3, and unrestricted patients considered suitable for discharge can be released under a supervised community treatment order (CTO).

Following devolution, Scotland had its own laws about compulsory detention - Mental Health (Care and Treatment) (2003). Under the Scottish system, compulsory detention is permitted through CTO’s and interim CTO’s.

In accordance with Department of Health guidelines, there are three levels of secure provision in the UK (i.e., high, medium and low) for the disposal of individuals with an ID who have offended or are at risk of offending. Admission is dependent upon the level of risk with which the individual presents. The three levels of security relate to the physical, relational and procedural measures that are in place. The security allows a safe and secure environment for treatment and rehabilitation to take place whilst also ensuring the protection of the public.

Forensic services are multidisciplinary, including psychology, psychiatry, nursing, speech and language therapy, and occupational therapy. Staff teams provide structure, routine, treatment, basic skills and education for offenders as part of the rehabilitation process (Yacoub & Hall, 2009). Individuals are likely to progress from high to low secure accommodation in a stepped care model, with discharge into the community as the ultimate goal. Community living is based on principles of normalisation (Wolfensberger, 1972), that an individual will be supported to live a full and valued life in the community (Sinason, 1992).

Predicting offending behaviour

Risk prediction is a key issue throughout the criminological literature and is a major concern for the professionals working with offenders with ID (McMillan, Hastings, & Coldwell, 2004). Without the ability to accurately predict who will reoffend, professionals may be inclined to keep people detained in secure settings out of concern for the safety of the individual and the public. Conversely, professionals may unwittingly release potentially dangerous individuals who are likely to reoffend (Fitzgerald, Gray, Taylor, & Snowden, 2011).

There are numerous different methodologies for assessing and predicting violence, which fall broadly into two categories: actuarial (statistical), and clinical risk prediction. Actuarial risk assessments have been developed to aid clinicians in different contexts to assess risk in a structured way by focusing on risk factors empirically associated with reoffending. These measures use explicit methods of combining risk factors using statistical algorithms, to produce a score and subsequently indicates a risk category (e.g., low, medium & high) (Lambrick, 2003).

Clinical approaches to risk are generally categorised as unstructured clinical judgement and structured clinical judgement depending upon the clinician's level of active involvement. The basis for an unstructured assessment is the clinician's own subjective judgement based on his or her own experience and knowledge of offending behaviour (Hanson & Bussiere, 1998). However, a recent review concluded that unstructured clinical judgements result in biased, inaccurate and unreliable predictions of risk (Hanson & Morton-Bourgon, 2009). Explanations for these weaknesses include a lack of inter rater and test retest reliability (Hanson & Morton-Borgon, 2009) and human information processing limitations and biases (McMillan et al., 2004).

In contrast, structured clinical judgement has the advantage of construct validity and reliability (Singh et al., 2011) through inclusion of empirically based risk factors. With this approach, professionals undertaking risk assessments are at liberty to use static risk items, dynamic items or a combination of the two (McMillan et al., 2004).

Static and dynamic risk factors

Static risk factors are fixed or pre determined factors such as gender or having a parent with a criminal record. In contrast, dynamic factors reflect changeable environmental variables and internal states that are temporary and thus fluctuate over time, for example attitudes, cognitions and impulsivity (McGuire, 2008). Although tools incorporating static risk items are statistically robust they have a number of serious limitations for clinicians and researchers. The static nature of risk items precludes monitoring of change in violence potential over time, and cannot, therefore, alert clinicians to the need to intervene therapeutically or change supervision levels to reduce risk. Static measures also fail to take account of positive offender changes such as a response to treatment (Douglas & Skeem, 2005). Furthermore, static measures fail to account for inherent reductions in offending behaviour (e.g., the age-crime curve). A consistent finding throughout criminological literature is that male offenders tend to desist from crime aged thirty years and over (Serin & Lloyd, 2009). Change occurs for various reasons, for example, as a result of successful treatment, natural maturation or the development of pro social relationships (Serin & Lloyd, 2009).

Dynamic risk factors have also been referred to as psychologically meaningful risk factors (Mann, Hanson, & Thornton, 2010) or criminogenic needs (Andrews & Bonta, 2003). Acquiring information regarding dynamic variables provides a useful framework for evaluating risk variability in the short to medium term in contrast to one-off predictions of risk using static measures (Douglas & Skeem, 2005). Thus, dynamic assessments help to prioritise resources in forensic services by allowing professionals to determine the most profitable treatment and supervision targets

(Harris & Hanson, 2010). Furthermore, dynamic risk factors, when improved or ameliorated by treatment, should influence whether or not the individual reoffends (Harris & Hanson, 2010).

In recent times, authors have highlighted the importance of including dynamic risk factors alongside static risks for an accurate assessment of risk (Harkins & Beech, 2007). This is in line with the risk/needs/responsivity (RNR) model of understanding risk (Andrews & Bonta, 2003). Within this approach, static risk measures are used to assess the risk level an individual presents which determines 'who' should be treated (i.e., treatment should be aimed at higher risk offenders). Dynamic measures are used to address the need principle, the question of 'what' to treat, through identifying criminogenic needs to target in treatment. The responsivity principle addresses the question of 'how' to deliver treatment most effectively through identification of the individual's idiosyncratic characteristics.

Risk Prediction in offenders with ID

Knowledge and research regarding risk assessment procedures in the ID field has been slower to develop (Lindsay & Beail, 2004) than with mainstream offenders. Consequently, there is an absence of ID specific static risk measures available and only a very small number of dynamic measures. In this situation, clinicians are likely to develop their own 'in house' tools without properly establishing their predictive validity, or rely on unvalidated risk tools designed for offenders without an ID (Lindsay & Beail, 2004). Using 'in house' tools results in inconsistent definitions of high risk individuals, and may compromise communication between service providers which will in turn negatively impact on service planning nationally, regionally and restrict collaborative research opportunities (Lindsay & Beail, 2004).

Relying on static tools developed for non ID populations to identify and assess risk factors for offenders with an ID is also problematic. For example, studies assessing the predictive validity of the VRAG (Violence Risk Appraisal Guide; Quinsey et al., 2006) using the receiver operating characteristic (ROC) which generates an area under the curve (AUC) effect size have demonstrated acceptable accuracy (AUC=.73) over the long term (i.e., 5 years) (Gray et al., 2007). However, medium term prediction using the VRAG is less accurate. Acceptable results are reported over a one year period (AUC=.71; Lindsay et al., 2008), and modest over 15 month period (AUC=.69; Quinsey, Book, & Skilling, 2004). There is currently a dearth of research assessing the predictive accuracy of static measures in the short term.

With regard to predicting sexual reoffending, the study by Lindsay et al. (2008) reported acceptable accuracy (AUC=.71) for the STATIC-99 (Hanson & Thornton, 2000) but modest for Risk Matrix 2000-S (RM 2000-Sexual risk scale; Thornton et al. 2003) (AUC=.61). Whereas, Wilcox, Beech, Markall and Blacker (2009) reported that all three measures used in their study had modest to poor predictive accuracy with offenders with an ID over a 76 month follow up: STATIC-99 (AUC=.64); Risk Matrix 2000-S (AUC=.58); Rapid Risk Assessment of Sexual Offence Recidivism (RRASOR; Hanson, 1997) (AUC=.42).

The limited predictive accuracy of static measures with this population may be due to different offender demographics than the validation sample. For example, Lindsay et al. (2004) suggest that some static risk variables operate differently or are irrelevant to ID populations (e.g., employment history). Moreover, Quinsey, Jones, Book and Barr (2006) propose there may be different risk factors for different groups

of offenders. Emerging evidence suggests that certain dynamic risk factors are significantly associated with aggressive incidents by individuals with an ID (Quinsey et al., 2004). More recently, authors have compared the performance of dynamic measures with static measures using ROC analysis. Findings consistently demonstrate that dynamic risk measures perform with as much, or better accuracy as static measures across high, medium/low and community ID settings (AUC=.75 to .86 Blacker, Beech, Wilcox, & Boer, 2010; AUC=.72 to .75 Lindsay et al., 2008).

Given these promising findings, there is a clear need to develop work on dynamic risk assessment to improve predictive accuracy and clinical utility. Most notably, to develop ID specific measures and to address the lack of tools designed to assess risk of aggression as an outcome measure. To date, only two ID specific measures have been developed. The Dynamic Risk Assessment and Management System (DRAMS; Steptoe, Lindsay, Murphy, & Young, 2008) to assess risk for general offending, and the ARMIDILO-S (Assessment of Risk and Manageability for IndividualLs who Offend Sexually; Boer, Tough, & Haaven, 2004) for risk of sexual offending. Both measures have a limited number of studies demonstrating their predictive accuracy with offenders with an ID. Initial investigations suggest that some but not all sections of the DRAMS were predictive of violence in a high secure setting, (i.e., level of mood, antisocial behaviour, intolerance/agreeableness and total score) (Steptoe et al., 2008). Therefore, caution must be employed in the application of this measure in its current form.

With regard to the ARMIDILO-S, one published study has compared its predictive accuracy to that of mainstream static tools. In the study (Blacker et al., 2010) the ARMIDILO-S was the most accurate predictor of sexual reoffending.

However, study limitations such as a retrospective follow up design and small sample size (N=10) (Blacker et al., 2010) need to be addressed in future research.

Although a small amount of research has been published, recent progress in this area highlights the potential value of dynamic risk measures for the ID population, and across different forensic settings. A unique feature of both the DRAMS and the ARMIDILO-S is the inclusion of variables relating to the environment or situational risk factors (e.g., management approaches, staff characteristics) alongside those relating to the individual. Including environmental factors in risk assessments can improve prediction whilst neglecting them results in missed opportunities to better understand and manage risk (Cooke & Johnstone, 2010). Given that individuals with an ID are more dependent upon support in the environment such as support staff, situational variables are likely to be of increased importance for this population (Boer, McVilly, & Lambick, 2007).

Whilst construction of the DRAMS and ARMIDILO-S represent important developments in the ID field, in their current format, they present practical challenges that impact on the utility in clinical practice. For example, the DRAMS items are not specific to offenders with ID (Camilleri & Quinsey, 2010). Moreover, an ARMIDILO-S assessment requires an extensive record review and interviews with the client and staff member. These factors can result in costly and time consuming assessments of risk. It is essential that the complexity of risk assessments is condensed in order to arrive at a timely, practical and meaningful risk evaluation (Lavoie, Guy, & Douglas, 2009).

There is currently no risk measure developed specifically to assess risk for aggression by offenders with ID. Given that the underlying risk factors associated

with aggression may well be different from general or sexual offending (Lindsay et al., 2012) there is an urgent need for a risk measure focusing on aggression.

In addition, there is a lack of clear conceptual thinking about the notion of risk. Throughout the criminological literature, it is commonly assumed that static and dynamic risk factors measure two different aspects of risk. This is reinforced by the risk/need/responsivity RNR (Andrews & Bonta, 2003) model that sees a distinct role for static and dynamic measures in addressing the principles of RNR. Alternative conceptualisations have been proposed but not widely adopted. Beech and Ward (2004), for example, suggest that static risk factors act as historical markers for the same underlying psychological disposition measured by dynamic risk factors (Ward & Beech, 2004 p271). This would imply that the two concepts are essentially measuring a similar construct. Chapter 3 of this thesis is the first empirical research to test this theory. The results are valuable for informing the future direction of risk prediction with offenders with an ID.

Summary

In comparison to the mainstream literature, knowledge about violence risk assessment and prediction with offenders with an ID is still in its infancy. Clinicians and researchers in the ID field need to be aware of which tools accurately predict reoffending (Camilleri & Quinsey, 2010). The emerging research from both ID and non ID settings report positive findings for a dynamic approach to assessing risk.

Currently, the absence of a risk tool tailored for offenders with an ID for the prediction of aggression often results in an already marginalised group of individuals being discriminated against further. Unnecessary restrictions are placed on their liberty and limited access to treatment because clinicians are unable to accurately

assess the risk they present. Without such a tool, attempts to effectively reduce risk are also hindered. Given practical time constraints in clinical practice, a brief and easy to use measure would permit timely assessments by both qualified and unqualified (e.g., support workers) staff in forensic services. This approach to assessing risk would facilitate frequent, rapid screening of individuals in order to highlight those that require a more comprehensive follow up evaluation.

The Present Thesis

The aim of this thesis was to use qualitative and quantitative methods to understand violence risk factors relevant to individuals with an ID. More specifically, to improve the accuracy of violence prediction in this population by:

1. Exploring dynamic and static variables relating to offending and other violent behaviours in adults with ID.
2. Developing a new ID focused risk assessment tool that has an emphasis on dynamic risk variables.

Structure of Thesis

This thesis is structured as four linked chapters: three quantitative studies and one qualitative study. Each chapter takes a different methodological approach toward exploring risk factors for offending behaviour in adults with an ID. The first three empirical chapters reported in this thesis contribute to developing a new dynamic risk tool specifically tailored to individuals with an ID, for predicting aggression.

Chapter 2 describes a quantitative study using data collected over a six year period by Professor William Lindsay (Castlebeck, University of Abertay, and Bangor University), one of the supervisors of this thesis. The data analysis for this chapter

was conducted by the author of this thesis. The study examined the predictive efficacy of a tool developed to measure sexual reoffending aimed specifically at offenders with an ID (ARMIDILO-S). The predictive accuracy of this measure was compared to two well established static measures developed for mainstream offenders. The first measure was designed to assess sexual reoffending (STATIC-99; Hanson & Thornton 2000). The second measure was developed to assess violent reoffending (VRAG; Quinsey, Harris, Rice, & Cormier, 1998). ROC analysis revealed that the ARMIDILO-S was the most accurate predictor of sexual reoffending. The results of the analysis and implications for clinical practice are discussed in chapter 2.

The third chapter aims to address the current lack of conceptual thinking about risk. The study adopts a public health model of understanding how risk factors 'work together' to predict violent behaviour. To achieve this, secondary data analysis was conducted by the author of this thesis on data collected from a collaborative study involving Professor William Lindsay. As part of the original study, data were collected from three study sites: high secure, medium and low secure, and community ID services. Analysis indicated that dynamic risk factors are proxy factors for static risk, suggesting that the two essentially measure similar underlying risk. The results of this study have important implications for the way risk is measured in this population in future research and practice.

The qualitative study in chapter 4 explores the perceptions of individuals with an ID in relation to their own offending behaviour. Although clinically such questions might be asked of offenders with an ID, there are no published studies using this methodology. Ten interviews were conducted with men with a history of aggressive

behaviour. The men were residents in medium and low secure accommodation provided by an independent service. Three themes were identified from the data using thematic analysis (Braun & Clarke, 2006): hospital environment, personal mental health characteristics and self management. The themes are discussed with regard to the salience of environmental risk factors in this population, and the insight individual's have into their own risk. Whilst this is a valuable study in its own right, shedding light on insights that were perhaps overlooked, a content analysis was conducted to identify potential risk variables for inclusion in a new dynamic risk tool.

The fifth chapter describes the construction and initial validation of a new dynamic risk measure: Current risk of Violence (CuRV). The CuRV was developed through exploration of a multitude of sources and several pilot studies including review of the ID literature, examination of established dynamic risk assessments, consultation with offenders with an ID, and consultation with experienced multidisciplinary teams. The CuRV demonstrated good predictive accuracy over a five month period using ROC analysis. This study extends the current availability of risk measures designed specifically for offenders with an ID to include an aggression focused measure. With further development and validation, the CuRV could prove to be a useful screening tool for use by direct care staff and other health professionals in ID settings.

Chapter six (Discussion) discusses the empirical research in this thesis and summarises the findings and implications emerging from this. It makes recommendations for future research in this area and clinical practice.

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Chapter 2¹ - Prospective Dynamic Assessment of Risk of Sexual Reoffending in
Individuals with an Intellectual Disability and a History of Sexual Offending Behaviour

¹ A version of this chapter is in press as Lofthouse, R.E., Lindsay, W.R., Totsika, V., Hastings, R.P., Boer, D.P., & Haaven, J.L. (2013). Prospective Dynamic Assessment of Risk of Sexual Reoffending in Individuals with an Intellectual Disability and a History of Sexual Offending Behaviour, *Journal of Applied Research in Intellectual Disabilities*.

Abstract

Background The purpose of the present study was to add to the literature on the predictive accuracy of a dynamic intellectual disability (ID) specific risk assessment tool.

Method A dynamic risk assessment for sexual reoffending (ARMIDILO-S), a static risk assessment for sexual offending (STATIC-99), and a static risk assessment for violence (VRAG) were completed for a sample of 64 adult males with an ID.

Results The dynamic risk assessment for sexual offenders with an ID resulted in the best prediction of sexual reoffending (ARMIDILO-S AUC = .92) this was better than an established sexual offending static risk assessment (STATIC-99 AUC = .75). A static tool for violent reoffending, did not perform as well in this group (VRAG AUC = .58).

Conclusion Results suggest that dynamic variables are useful in predicting sexual reoffending with individuals with an ID, confirming previous findings. The ARMIDILO-S is a promising dynamic risk assessment for individuals with an ID.

Evaluating the risk of harmful behaviours is a key task for many professionals in health and criminal justice settings. More than 120 different risk assessment tools are available to assist professionals to identify and manage risk with mainstream forensic populations (Singh & Fazel, 2010). Professionals working with individuals with an intellectual disability (ID) are comparatively disadvantaged as there is a smaller evidence-base focused on which risk factors accurately predict recidivism (Lindsay, Elliot & Astell, 2004), and limited availability of formal risk assessments intended for this population. In practice, this means clinicians are unable to accurately assess the likelihood that the individual with an ID will engage in harmful behaviours, with potentially serious consequences. An overestimation of the risk could lead to discrimination against the individual with an ID in terms of loss of personal liberty and restricted community access, whilst an underestimation of risk has implications for public safety.

Faced with this situation, clinicians and researchers often make use of measures developed for mainstream offenders with individuals with an ID. The effectiveness of this approach in predicting sexual reoffending has been evaluated with mixed results. Tough (2001) conducted t-tests comparing the mean scores of recidivist and non recidivist offenders and reported a significant difference for the Rapid Risk Assessment for Sex Offender Recidivism, (RRASOR; Hanson, 1997) but not the STATIC-99 (Hanson & Thornton, 2000). In a further test of validity, Tough (2001) found that scores on the RRASOR correlated significantly with recidivism, whilst scores on the STATIC-99 did not, strengthening the conclusion that the RRASOR was a better risk assessment measure for offenders with an ID. More recently, Lindsay et al. (2008) evaluated the predictive accuracy of a number of risk

assessments using the Receiver Operator Characteristic (ROC) Area Under the Curve (AUC) statistic. These authors reported a significant predictive value for the STATIC-99 (AUC = .71) but found that the Risk Matrix 2000-Sexual (RM 2000-S; Thornton et al., 2003) did not produce a significant effect (AUC = .61, $p = .08$) with this population. Furthermore, Wilcox and colleagues (2009) compared the ability of the STATIC-99 (AUC = .64), RRASOR (AUC = .42) and Risk Matrix 2000-S (AUC = .58) to predict sexual reoffending, and found that all of the measures had poor predictive validity with adults with an ID.

These conflicting findings are similar to findings in mainstream populations, and illustrate that despite the increasing evidence base relating to offenders with an ID, uncertainty still remains regarding the predictive validity of measures and their validity with this population. In addition, there is uncertainty regarding the performance of actuarial measures versus structured clinical judgement tools (Singh, Grann, & Fazel, 2011) that include dynamic risk factors.

It is widely recognised across forensic populations that an actuarial approach to risk assessment has a number of limitations that potentially impact on the accuracy and validity of risk predictions. Amongst other things, actuarial tools are criticised for their reliance on static risk scores that are unable to decrease, and are therefore unable to reflect reductions in risk brought about by effective treatment (Hudson, Wales, Bakker, & Ward, 2002). For offenders with an ID, sufficient details regarding their sexual offending behaviour may not always be available in case files because individuals are rarely prosecuted for such behaviours. Consequently, actuarial measures tend to be difficult to score and may underestimate the real risk of re-offending (Beech, Fisher, & Thornton, 2003). Wilcox and colleagues (2009)

further argue that certain characteristics more prevalent in individuals with an ID (e.g. absence of a long term relationship) may artificially increase risk scores on some actuarial measures.

In an attempt to address apparent limitations of actuarial instruments and to increase the validity of risk prediction, researchers have increasingly turned to measures that include or focus exclusively on changeable risk factors, such as behavioural or psychological characteristics of the offender, commonly referred to as dynamic risk factors (Andrews & Bonta, 2006). Hanson and Harris (2001) further sub-divided dynamic risk factors into those that appear fairly consistent/stable (such as self regulation problems; Thornton, 2002) and rapidly changing/acute factors (e.g., mood state).

To date, research investigating the ability to predict sexual reoffending by individuals with an ID, although less extensive, appears consistent with the mainstream literature in adopting the static and dynamic variables distinction. In an early study, Lindsay et al. (2004) directly compared the two approaches, and found that dynamic variables were better predictors of sexual recidivism than static variables in people with an ID. In particular antisocial attitudes which are a good risk predictor in mainstream populations (Quinsey, Harris, Rice, & Cormier, 1998), and allowances made by staff members, were found to perform well in this population. This latter variable was developed from clinical experience and relates to instances such as staff allowing an individual to be late for or to miss a therapy session (Lindsay et al., 2004). In another study, Quinsey, Book, & Skilling (2004) found that both the Violence Risk Appraisal Guide (VRAG; Quinsey et al., 1998), a static measure developed for mainstream offenders, and the dynamic variable of

inappropriate and antisocial behaviours, significantly predicted direct contact sexual offending in offenders with an ID. This preliminary evidence suggests that certain dynamic variables could be useful in predicting recidivism in sexual offenders with an ID.

An important recent development in the research on dynamic risk predictors in offenders with an ID is the inclusion of environmental variables in a framework for assessing risk. The consideration of environmental variables is of particular relevance to offenders with an ID, given that they are more dependent upon and have regular contact with external structures and support mechanisms (Boer, McVilly, & Lambick, 2007) such as forensic services, direct care staff, and other professionals. In practice, this means that information and resources needed to identify, assess, and manage environmental risk factors should be easily accessible within routine clinical practice for this population. This in turn should facilitate ongoing and regular assessment of pertinent risk factors. Assessing current environmental and individual risk factors should enable systematic and well-timed risk management approaches that identify risk increasing variables in need of immediate attention (Boer et al., 2007) and are less restrictive than relying solely on static risk factors.

Boer, Tough, and Havven (2004) developed the first ID specific tool to incorporate environmental risk factors in their theoretical framework designed to assess risk factors for sexual offending. The Assessment of Risk and Manageability for IndividualLs who Offend Sexually (ARMIDILO-S) follows the Hanson & Harris (2001) approach to defining dynamic risk factors using the terms stable and acute, and further distinguishes between items relating to the offender and the environment.

The ARMIDILO-S (Boer et al., 2004) was developed through clinical expertise and a review of the literature. To our knowledge, there is only one published study that assesses the predictive ability of the ARMIDILO-S, but it had missing information for the environmental variables. In this study, Blacker, Beech, Wilcox, and Boer (2010) examined the performance of a number of risk assessments including the *acute* and *stable dynamic offender* subscale from the ARMIDILO-S. The risk assessments were coded retrospectively from file information. The sample consisted of a group of 88 sex offenders (44 mainstream and 44 offenders with special needs). Cognitive functioning of the special needs group was between 70 and 80 IQ points, suggesting borderline ID. Within this special needs group, a subsample ($n=10$) of offenders with an intellectual disability ($IQ<75$) were analysed separately. Recidivism was defined as: a) sexual reconviction: a conviction following completion of sex offender treatment programme, b) sexual reoffending: committing an additional sexual act, regardless of whether the individual was caught or not, c) sexual recidivism: any offence-related behaviour with a clear sexual motive, legal or illegal. The mean follow-up period in this study was 109 months ($SD = 23$, range 54-147). Based on the analysis for the ID subsample ($n=10$), the authors concluded that the ARMIDILO-S offender subscales *acute* ($AUC = .75$) and *stable* ($AUC = .86$) were significant predictors of sexual recidivism. The static measure Sexual Violence Risk-20 (SVR-20; Boer, Hart, Kropp, & Webster, 1997) also performed well ($AUC .75$ to $.88$), while the RRASOR ($AUC = .47$) performed no better than chance.

Compared with previous studies, these early data on the ARMIDILO-S yielded higher AUCs for predicting sexual reoffending than those achieved by actuarial risk tools developed for mainstream offenders. The AUCs produced are comparable to

the performance of dynamic variables in studies predicting sexual reoffending in offenders with an ID. Based on these findings Blacker et al. (2010) suggested that actuarial tools may not be as effective for offenders with an ID and that measures that incorporate acute and stable dynamic risk factors may result in greater accuracy.

Research aims

The main aim of the current study was to add to the literature on the predictive accuracy of a dynamic ID-specific tool (the ARMIDILO-S) for sexual offenders with an ID. This study focuses on a population not commonly used in the risk literature; and incorporates a unique approach to conducting risk assessment by examining environment characteristics alongside offender characteristics. With the paucity of research in the ID field to date, this study provides important validation of the efficiency of ID specific tools, with a sample size that is larger than the previous published study (Blacker et al., 2010). We aimed to improve existing knowledge by (a) Including a reasonably large sample of sexual offenders with an ID, (b) Using a prospective design, (c) Incorporating all ARMIDILO-S items, and (d) Including IQ score information about the sample (the Blacker et al., 2010 sample included a broader group with special needs not all of who had an ID).

As with previous studies, in the absence of a validated risk assessment tool for sex offenders with an ID (Boer et al., 2004) we included a comparison with an established actuarial risk assessment for adult male sexual offenders. Actuarial assessments are the most frequently used tools to assess sexual offenders, and the STATIC- 99 is one of the most extensively cross-validated tools (Kingston, Yates,

Firestone, Babchishin, & Bradford, 2008). To add some element of control by testing whether just any risk assessment would be sufficient to predict recidivism, we included an established violence risk assessment (VRAG) in the study. The VRAG is also one of the most widely used actuarial risk assessments in research with mainstream and, more recently, ID samples (Quinsey et al., 2004; Lindsay et al., 2008). We expected the measure of risk for sex offenders (STATIC-99) would predict sexual recidivism better than a risk assessment for violence (VRAG). Based on previous research findings in the ID field, we also expected the measure of dynamic risk (ARMIDILO-S) to perform better than the static risk measures.

Method

Participants

The sample consisted of 64 males with an ID and a history of sexual offences. The mean age at baseline was 32 years (SD = 11.9, range = 17 - 63). The majority of participants (94%) were recruited through a community service for people with an ID in one area of Scotland. Participants were consecutive referrals to the service for assessment, treatment, and management of their sexual offending behaviour. All individuals were selected to receive a service at this stage, and no-one was considered ineligible. Once in the service, individuals were only excluded from receiving a service if they did not fulfil the criteria for ID (presence of all three components: IQ<70, significant deficit in adaptive skills, onset before 18 years of age), if they had a court appearance pending for their offence, if they were imprisoned for their offence, or transferred to the state hospital.

Participants lived with their family, independently, or in a group home with four or five other residents. Group homes had 24-hour staff support which included sleep over staff during the night. The majority of the participants attended a day centre. (For a comprehensive description of the service see Lindsay et al., 2006). During the follow up period, 4 participants (6%) were inpatients in the 10-bed open unit that forms part of the comprehensive community service. Participants' mean IQ score using the Wechsler Adult Intelligence Scales (WAIS-R; Wechsler, 1981 or WAIS III; Wechsler, 1999) was 67 (SD = 5.5, range 54 - 75).

Risk profile of participants

The mean number of pre - treatment offences for each participant was 7 (SD =25, range 1-200), 78% (50) individuals committed more than one offence. Of the sample, 33 % (21) had offended against a male, 81% (52) had offended against a female, 14% (9) had offended against both males and females, 39% (25) had offended against an adult, 67% (43) had offended against a child, and 6% (4) had offended against both an adult and a child.

Of the total sample ($N=64$), 33% (21) were considered to have reoffended by engaging in inappropriate sexual behaviour within the period 2003-2009. Of this group of 21 offenders, 90% (19) received a criminal charge for this behaviour, the majority of which were indecent exposure and breach of probation. The majority of offences took place in a public place, with some occurring in the individual's own home (due to the unique nature of the individual reoffences, individual data will not be presented but is available from the second author). In terms of risk level, 45%

($n=29$) of the total sample would be considered a high risk (≥ 6) (Hanson & Thornton, 2000) on the STATIC-99.

Procedure

The study received audit approval by the Medical Ethics Committee as a clinical effectiveness audit. The project protocol was also sent to the Scottish Committee for Medical Research Ethics who confirmed that as a clinical audit, full ethical review was not required.

The study was prospective in its design. All three risk measures were completed in 2003 by the case-holding clinical psychologist and a graduate psychologist in clinical psychology training, purely for research purposes. Data were collected from client files, and, where there were insufficient data, the psychologist/graduate psychologist conferred with a member of nursing staff who was familiar with the individual.

All analyses were conducted in SPSS 16[®] (IBM SPSS). ROC analyses were conducted to evaluate the predictive accuracy of each risk assessment tool in the whole sample of 64 participants. The analyses were then repeated for those participants with an IQ score below 70 ($n=42$), to examine whether the results would be replicated using a more stringent definition of ID similar to current diagnostic criteria.

Measures

The Assessment of Risk and Manageability for Individuals who Offend Sexually (ARMIDILO-S; Boer et al., 2004). The ARMIDILO-S includes 30 items posited to have a dynamic relationship to risk or manageability of risk for sex

offenders with an ID. The dynamic factors are defined as either *stable* (i.e., relatively enduring characteristics) or *acute* (i.e., rapidly changing contextual factors), and they refer to either the individual or the environment. Therefore, the *stable dynamic environmental* items cover attitudes towards sex offenders with an ID, communication amongst supervisory staff to ensure information sharing, client specific knowledge by staff, consistency of supervision, environmental consistency including the physical setting and relationships. *Acute dynamic environmental* items refer to new supervisory staff, monitoring by staff, victim access, and environmental changes such as relocation. *Stable dynamic offender items* involve attitudes and compliance with supervision and treatment, knowledge of cognitive distortions, crime cycle, risk factors and relapse prevention plan, sexual knowledge and self management of sexuality, mental health, monitoring ability and self management, time management skills and planning ability, substance abuse, victim selection and acquisition/grooming behaviour, general coping ability and self efficacy, relationship and 'relating to others' skills, threat or use of violence against self or others, impulsiveness and offender specific stable dynamic factors, which are potentially numerous but can include family related problems for example. Finally, the *acute dynamic offender* items refer to changes in social support or significant relationships, changes to substance abuse pattern, changes in sexual preoccupation, changes in victim access or preoccupation with victim selection and acquisition or grooming of victim, changes in attitude or behaviour towards supervision or treatment, changes in ability to use coping strategies or recognise risky situations or failure to use problem solving strategies, changes to routine and offender specific acute dynamic variables; again there are numerous possibilities specific to the individual.

Each item's presence over the previous 3 months is rated on a scale ranging from 0-2, where 0 = no problem, 1 = maybe a problem, and 2 = definitely a problem. Scoring was based on the original (Boer et al., 2004) description of how to record items taken from the scoring criteria in the HCR-20 (Webster, Douglas, Eaves, & Hart, 1997) and the SVR-20 (Boer et al., 1997). In 2007, the method of scoring items changed conceptually (-2 to +2) to reflect the potential for items to also act as protective factors that reduce the risk of sexual reoffending. For the purposes of the present study, the measure was used to obtain three scores: (a) Total environment (stable and acute dynamic environment, 9 items) possible range of scores 0-18, range achieved in this study: 0-14; (b) Total offender (stable and acute dynamic offender, 21 items) range of scores 0-42, achieved range: 0-20; (c) Total ARMIDILO-S (all 30 items) range of scores 0-60, achieved range: 0-30. We examined the internal consistency for these three scores. Cronbach's alphas were .71 for the total environment, .86 for the total offender, and .86 for the total ARMIDILO-S, which indicated adequate levels of internal consistency in the present sample. A second rater (graduate psychologist in clinical psychology training) independently rated all three risk assessment measures for 18 participants (28% of the total sample) in 2003. Overall, the inter-rater reliability was excellent: total environment $r = .98$, total offender subscale $r = .96$, and ARMIDILO-S total score $r = .98$.

STATIC-99 (Hanson & Thornton, 2000). The STATIC-99 is a brief actuarial instrument designed to measure long term sexual recidivism. It contains 10 items covering four domains: persistence of sexual offending, sexual deviance, range of potential victims and anti-sociality. A raw total score is obtained (0-12) which is used to determine a recidivism risk estimate for both sexual and violent recidivism over 5,

10, & 15 years (Harris, Phenix, Hanson, & Thornton, 2003). Nominal risk categories can also be obtained from raw scores: “0” and “1” are categorised as *Low Risk*; “2” and “3” as *Medium – Low Risk*; “4” and “5” as *Medium-High Risk*; and scores of “6” and above as *High Risk*. In the current study, the total score was used. The inter-rater reliability for the STATIC-99 was excellent: $r = .96$. The STATIC-99 has been shown to be an effective tool with sexual offenders with an ID in a previous study by Lindsay et al. (2008) but did not perform as well when compared to the RRASOR in an unpublished study (Tough, 2001).

Violence Risk Appraisal guide (VRAG; Quinsey et al., 1998). The VRAG is used to estimate long-term risk of committing a new violent offence in mainstream offender populations. The tool comprises 12 items: living with parents to age 16, school maladjustment, history of alcohol problems, marital status, criminal history, failure on prior conditional release, age at index offense, victim injury, victim gender, presence of personality disorder, or schizophrenia (DSM III), and PCL-R score (Psychopathy Checklist - Revised; Hare, 1991, 2003). Scores are summed and then assigned a risk category 1 (*lower*) to 9 (*higher*) for risk of violent recidivism. The VRAG has been used successfully with offenders with an ID in previous studies (Quinsey et al., 2004; Gray, Fitzgerald, Taylor, MacCulloch, & Snowden, 2007; Lindsay et al., 2008). In the current study, the risk category was used for analysis. The inter rater reliability for the VRAG was also excellent: $r = 1.0$.

Recidivism Outcome

The predictive accuracy of the risk measures was assessed using sexual incident data from the participants. A sexual incident referred to any behaviour with a

sexual motive including physical contact and non-physical contact offences. Such behaviours included indecent exposure, lewd and libidinous behaviour, exhibitionism and stalking to sexual assault and rape. In the field of ID, not all offences result in formal convictions. Therefore, it was considered appropriate to include both official and unofficial reports which were recorded by staff. Social workers, community nurses and case managers were responsible for recording incidents as part of routine clinical practice. Each month, a review meeting was held for all cases where all incidents of reoffending were discussed and recorded in the individual's case notes. This discussion ensured that double counting was not an issue. It was evident from the discussion if clinicians were talking about the same incident.

Incident data were collected independently of the other measures and taken from the individual's case notes in 2009, six years after risk measures were scored (including the ARMIDILO-S). Data were collected by a graduate psychologist in clinical psychology training and a clinical psychologist and coded dichotomously as sexual recidivism or no sexual recidivism. Although inter-rater agreement was not calculated on the coding of sexual recidivism in this study, the individuals responsible for coding were trained reviewers considered to be highly experienced in issues relating to intellectual disability and criminal justice issues. Percent agreement between these reviewers was calculated in a previous study for 87 cases, and was consistently reported to be over 95% (Lindsay, Steele, Smith, Quinn, & Allan, 2006, p.117).

Results

Predictive accuracy of each of the risk assessment tools was estimated using receiver operator characteristic (ROC) analyses which provide an effect size of the area under the curve (AUC). For the ARMIDILO-S, ROC analyses were conducted using the scores from the individual component parts of the measure: the stable environment, acute environment and the total environment (which is the sum of the stable and acute environment scores); the stable offender, acute offender and total offender (which is the sum of the stable and acute offender scores); and the total ARMIDILO-S score (which is the sum of the total environment and total offender scores) (see Table 2.1).

Table 2.1 Predictive Validity of the ARMIDILO-S Individual Component Scores and Total Scores

ARMIDILO-S sub-scale score	Area Under Curve (AUC)
Stable environment	.79*
Acute environment	.77*
Total environmental score	.81*
Stable offender	.88*
Acute offender	.67
Total offender score	.90*
Total ARMIDILO-S score	.92*

Note. *p <.001.

One of the aims of the current study was to focus on the distinction between environmental and offender variables which makes the ARMIDILO-S a unique

dynamic risk measure. Coupled with the finding that the AUCs were larger for the total subscale scores (total environmental, total offender and total ARMIDILO-S scores) than their individual component parts, we focus our discussion on the total scores.

All three total scores of the ARMIDILO-S predicted sexual recidivism better than chance (see Figure 2.1) and with large effect sizes: total environment (AUC = .81, $p < .001$), total offender (AUC = .90, $p < .001$), and the total ARMIDILO-S (AUC = .92, $p < .001$). The STATIC-99 significantly predicted sexual recidivism (AUC = .75, $p = .001$) (see Figure 2.2). The VRAG did not perform significantly better than chance (AUC = .58, $p = .33$) (see Figure 2.2).

Figure 2.1 Receiver Operating Characteristic (ROC) Curve: ARMIDILO-S subscales

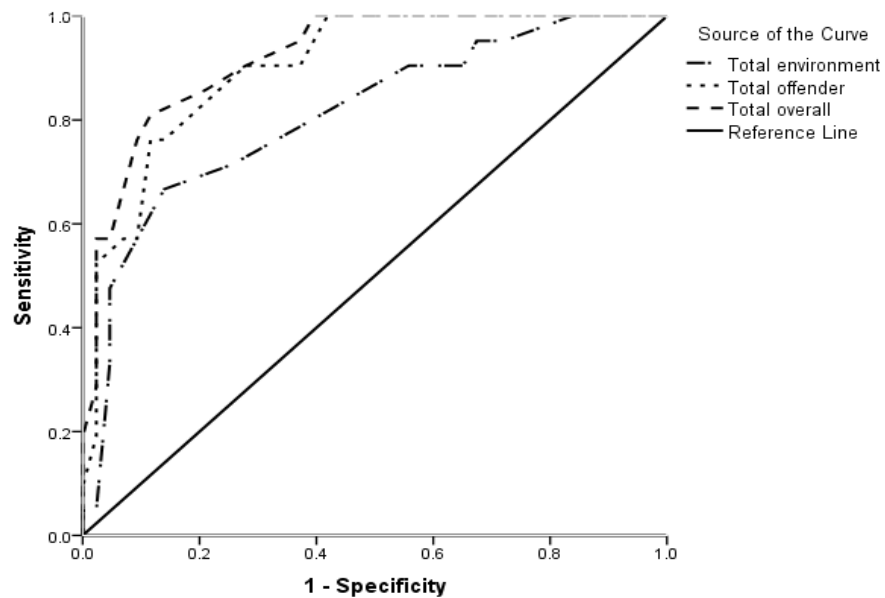
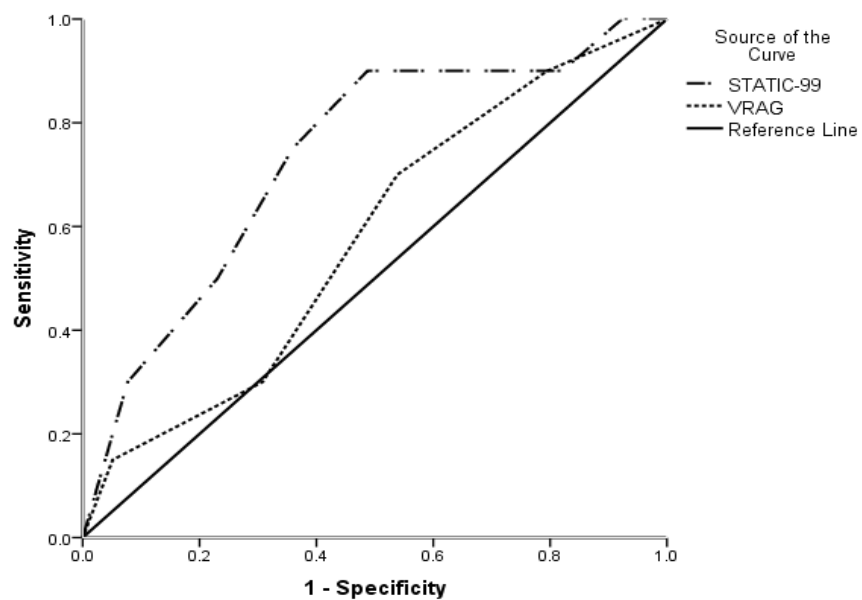


Figure 2.2 Receiver Operating Characteristic (ROC) Curve: STATIC-99 and VRAG



Pairwise comparisons (Mann-Whitney tests) were conducted on the AUCs of the three total scores. There was a significant difference between the total ARMIDILO-S and total environment scores ($p = .02$). There was no significant difference between the total environment and total offenders scores (see Table 2.2).

Table 2.2 Pairwise Comparison of AUC for the Total ARMIDILO-S, Total Environment and Total Offender Scores

ARMIDILO-S subscale	AUC	p value
Total ARMIDILO-S score vs. Total environment score	Total ARMIDILO-S score .92 Total environment score .81	$p = .02$
Total environment score vs. Total offender score	Total environment score .81 Total offender score .90	$p = .18$
Total ARMIDILO-S score vs. Total offender score	Total ARMIDILO-S score .92 Total offender score .90	$p = .50$

For clarity regarding the ID status of the sample, the data were reanalysed using only those participants with an IQ below 70 ($n = 42$). The same pattern of results was obtained for all three measures: ARMIDILO-S; total environment (AUC = .79, $p = .003$), total offender (AUC = .85, $p < .001$), and total ARMIDILO-S (AUC = .90, $p < .001$), STATIC-99 (AUC = .74, $p = .010$), and VRAG (AUC = .56, $p = .555$).

Discussion

In the present study, we examined the predictive accuracy of a dynamic risk scale developed for sexual offenders with an ID (ARMIDILO-S) compared with two measures of static risk, commonly used in research and clinical practice (STATIC-99 and VRAG). The results suggested that the ARMIDILO-S was more effective than the STATIC-99 and the VRAG in predicting sexual reoffending in individuals with an ID. These results were replicated when individuals with borderline IQ (IQ between 70-75) were excluded from the analysis.

The general findings of this study are consistent with previous research with offenders with an ID (Blacker et al., 2010), that suggested the ARMIDILO-S (acute offender dynamic items only) was a better predictor of sexual recidivism when compared to numerous other risk assessment tools. Contrary to Blacker et al. (2010), the current findings were based on all ARMIDILO-S items, thus further supporting the validity of the whole risk assessment tool.

An exploratory analysis of the subscale scores of the ARMIDILO-S (see Table 2.1) revealed strong effect sizes for all components with the exception of the acute offender subscale ($AUC = .67$). This is a significant but weak effect in comparison to the other subscales in this study and the performance of the acute offender subscale score in the Blacker et al. (2010) study. Due to the limited research conducted in this area to date it is difficult to know why this subscale was not as effective in predicting recidivism in the present study. A possible reason might be that these variables (e.g., changes in sexual preoccupation and changes in attitude) are particularly difficult to

measure by proxy in an ID population. Further research with ID populations is required to clarify this hypothesis.

The pairwise comparisons in the current study revealed a significant difference between the effect sizes of the total ARMIDILO-S and total environment scores (see Table 2.2). This indicates that the total environment AUC (which incorporates the acute and stable environment scores) is significantly smaller than the total ARMIDILO-S AUC (which incorporates the total environment and total offender scores). This suggests that the total ARMIDILO-S score is significantly better at predicting reoffending in this study than the individual component parts (acute and stable scores of environment and offenders subscales). The non-significant comparison between the total environment score and the total offender score indicate that they both predict sexual recidivism with similar levels of accuracy; and are therefore both equally important for an accurate prediction of risk. As Boer et al. (2007) acknowledged, consideration of environmental risk factors is not a new concept in risk management, but is novel in the approach to risk assessment and one that warrants further empirical and theoretical investigation.

The predictive value of the ARMIDILO-S may be attributed to the fact that it is designed specifically for offenders with an ID, or that it focuses on dynamic risk factors or a combination of both of these factors. Given that the STATIC-99, a tool designed for mainstream offenders, performed accurately in the present and previous studies with offenders with an ID (e.g., Lindsay et al., 2008), suggests that it might be the dynamic nature of the measure that accounts for why the ARMIDILO-S was more effective than the static tools. Further to this, Lindsay et al. (2004) found that when they assessed dynamic and static variables taken from the mainstream

offender literature, dynamic variables outperformed the static variables with offenders with an ID. This adds further support for the dynamic nature being fundamental to its efficacy.

In terms of the performance of the actuarial measures, the significant ability to predict sexual recidivism demonstrated by the STATIC-99 is consistent with findings from a larger cohort of offenders with an ID across three levels of security (Lindsay et al, 2008). Although the VRAG did not accurately predict sexual reoffending in this study, unlike the Quinsey et al. (2004) study; it may be because the VRAG was developed primarily to predict violent reoffending. Therefore, it is perhaps unsurprising that it was not a significant predictor of sexual reoffending in this study.

It seems that best practice in risk assessment with offenders with an ID is still evolving. The empirical evidence for the use of actuarial measures is sometimes contradictory but appears to support the use of certain tools for use with offenders with an ID (i.e., STATIC-99, RRASOR & VRAG), providing they are based on relevant risk factors (Craig, 2010) and are appropriate for the offending behaviour of interest. Previously, authors have suggested using actuarial measures alongside a measure assessing dynamic risk factors (Harris & Tough, 2004; Craig, Browne, Stringer, & Beech, 2005) to ensure a range of relevant risk factors are considered. Similarly, Boer (2006) advocates a convergent approach, incorporating actuarial and structured clinical judgement tools. He claims the different manner in which the two approaches are conceptualised and analysed complement each other and enable a thorough assessment of risk.

The conceptualisation of risk factors is one direction future research in the ID field should develop. Mann, Hanson, & Thornton (2010) proposed that a theoretical link between risk factors and recidivism is essential for a deep understanding of risk. The work of Mann and colleagues (2010), builds on the conceptual approach introduced by Beech & Ward (2004) to link empirical work and etiological theory. Beech & Ward (2004) argue against conceptualising risk factors in static and dynamic terms on the justification that the two terms measure the same psychological dispositions. The model hypothesises that historical (static) factors act as markers for underlying vulnerabilities, while stable dynamic factors are surface representations of the same underlying traits. Further to this, Mann et al. (2010) propose that risk factors should be understood as psychologically meaningful risk factors or propensities, as they highlight the offender's interaction with the environment when an offending behaviour occurs.

On balance, if static and dynamic approaches are potentially measuring the same psychological dispositions, it seems illogical to conduct both assessments in a convergent approach. There appears to be merit in clinicians and researchers focussing assessments of risk on psychologically meaningful risk factors. Advantages of this approach are explicit modelling of the temporal aspects of offending and a specific focus on the offender as an individual rather than relying on group measures (Beech & Ward, 2004). The significance of the relationship between the offender with an ID and their environment is also conceptually recognised in this approach and one that is worthy of further empirical and theoretical exploration.

Limitations

The ARMIDILO-S offender subscale includes two items that allow the evaluator to rate acute and stable risk factors that are unique to the individual. It could be argued that this permits an element of unstructured clinical judgement to factor in an otherwise structured tool. However, in the current study, the *offender specific stable dynamic* risk factor was scored on only two occasions. The evaluator's justification for endorsing this item was "vocalised desire to offend against children" and "copious use of pornography." These findings are consistent with the Dynamic Supervision Project (Hanson, Harris, Scott, & Helmus, 2007 which also reported low frequency of rating by evaluators and no relationship with recidivism on such unique acute dynamic items. In light of these findings, Hanson et al. (2007) decided not to include an offender-unique factor in an updated version of the measure (ACUTE-2007) (Harris & Hanson, 2010). Whether the predictive accuracy of the ARMIDILO-S can be enhanced by removal of such items could be the focus of future investigation of the psychometric properties of the measure.

It is noteworthy that many of the risk factors contained in the ARMIDILO-S are not found in the list of empirically supported risk factors compiled by Mann et al. (2010). Given that the ARMIDILO-S was developed from clinical expertise with offenders with an ID and research findings in this area, it may be further evidence that risk factors for offending behaviour in individuals with an ID are different to those in other forensic populations.

Finally, in this study the acute dynamic risk factor scales in the ARMIDILO-S were measured at a single time point in 2003 and recidivism data were collected 6 years later. Therefore, the temporal proximity of the acute ratings with the reoffending incidents is rather large. Ideally, in research and clinical practice, acute

risk factors should be measured repeatedly to monitor changes that may pre-date the onset of violent behaviour. Nevertheless, as this and other studies (Lindsay et al., 2004) have shown, several acute factors have been correlated with reoffending, including complacency in supervisors and unexplained breaks from routine. Although this study does not pinpoint which of the acute items in the ARMIDILO-S are more or less predictive of reoffending, future research may go on to review these items in more detail, and at multiple time points.

In summary, a key finding of this research is that high rates of predictive validity are achieved using psychologically meaningful risk factors that are amenable to change (dynamic) to predict sexual reoffending with ID populations. This indicates there is merit in further investigation into the performance of the ARMIDILO-S and future development of these methodologies. If the ARMIDILO-S is a valid measure of risk for sexual offending, it may play a significant role in the clinical assessment and treatment of sexual offenders with an ID.

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Chapter 3² - How do static and dynamic risk factors work together to predict violent behaviour amongst offenders with an intellectual disability?

² A version of this chapter is in press as Lofthouse, R.E., Totsika, V., Lindsay, W.R., Hastings, R.P., Hogue, T.E, Taylor, J.L. (2013). How do static and dynamic risk factors work together to predict violent behaviour among offenders with an ID? *Journal of Intellectual Disability Research*.

Abstract

Background Research on risk assessment with offenders with an intellectual disability (ID) has largely focused on estimating the predictive accuracy of static or dynamic risk assessments, or a comparison of the two approaches. The aim of this study was to explore how static and dynamic risk variables may “work together” to predict violent behaviour.

Method Data from 212 offenders with an ID were analysed. Risk assessment tools included one static measure (Violence Risk Appraisal Guide (VRAG; Quinsey et al., 1998)), and two dynamic measures (Emotional Problems Scale (EPS; Prout & Strohmmer, 1991) and the Short Dynamic Risk Scale (SDRS; Quinsey, 2004)). Six month concurrent prediction data on violent behaviour were collected. A structured methodology was employed to explore putative relationships between static and dynamic factors (Kraemer et al., 2001, 2010).

Results Static risk factors temporally preceded dynamic ones, and were shown to dominate both dynamic measures, while there was a non-zero relationship between the static and the two dynamic measures. According to Kraemer et al. (2001), these findings suggest that dynamic risk factors function as proxy risk factors for static risk.

Conclusion Dynamic and static risk factors appear to capture elements of the same underlying risk associated with violent behaviour in individuals with an ID. This is the first study to empirically explore risk inter-relationships in the forensic ID field. We discuss the importance of the contribution of dynamic variables in the prediction and management of risk

Existing research studies suggest that, in theory, understanding the causes of violent behaviour, and subsequently managing individuals effectively, can lead to a reduction in violent behaviour. Within this assessment-prediction-intervention model, risk assessment measures have a key role in assessing and predicting future violence (Yang, Wong, & Coid, 2010). Structured risk assessment measures provide a framework for considering and evaluating relevant risk factors, and are broadly categorised into those containing static and dynamic risk factors (Andrews & Bonta, 2006). In the present paper, we describe the way that risk is currently conceptualised in research, and explore the relationship between static and dynamic risk factors for violent behaviour.

Static variables are immutable items grounded in the individual's history (e.g., family/care experiences during childhood) as well as unchanging demographic features. Clinicians are likely to choose this method of assessing risk to predict the long term risk that an individual will reoffend (Heilbrun, 1997), or if they require a crude measure of the intensity of the individual's presenting problem and the need for intervention or support (Beech, Friendship, Erikson, & Hanson, 2002). The Violence Risk Appraisal Guide (VRAG; Quinsey, Harris, Rice, & Cormier, 1998) is an example of a static risk measure, and research demonstrates its ability to predict violent behaviour with modest to moderate effect sizes in a range of general offender samples (e.g., Area Under Curve (AUC) in the range .64-.71; Doyle, Dolan, & McGovern, 2002).

The conceptualisation of risk as dynamic requires an understanding of the individual's psychological and behavioural characteristics that are amenable to change (Hanson, 2009), over a short – medium term time frame (e.g., unstable

lifestyle and impulsivity – Hanson & Harris, 2010). Assessment of risk based on dynamic risk factors addresses some of the limitations of static risk measures. For example, static risk measures cannot reflect changes in the individual's presentation, which are essential for the monitoring and treatment of high risk individuals (Douglas & Kropp, 2002). In comparison, dynamic variables are considered to be clinically useful in the context of managing, and ultimately reducing risk of violence (Heilbrun, 1997). Although research on dynamic risk factors is not as developed as the static risk literature, early findings also demonstrate the ability to predict criminal recidivism with moderate to high levels of accuracy (Gendreau, Little, & Goggin, 1996; Andrews & Bonta, 2006; Brown, Amand, & Zamble, 2009; Jones, Brown, & Zamble, 2010).

An assumption that static and dynamic risk factors are different underlies studies comparing these two approaches to determine the most effective way to predict violent re-offending. Such comparisons often involve the use of actuarial measures incorporating static variables (e.g. VRAG; Quinsey et al., 1998) and structured clinical judgement tools containing dynamic variables (e.g. HCR-20; Webster, Douglas, Eaves, & Hart, 1997) (Campbell, French, & Gendreau, 2009; Yang et al., 2010; Singh, Grann, & Fazel, 2011). Findings from these studies have generally been conflicting or inconclusive. In a recent meta-analysis, Singh and Fazel (2010) found that neither a static nor a dynamic approach alone resulted in more accurate predictions, and concluded that the choice of risk assessment should be guided by which measure offers the highest predictive accuracy for the specific setting and population in question.

Both dynamic and static risk measures are increasingly used for assessing risk of violence with individuals with an ID. Although the evidence base is less

extensive than with mainstream offenders, findings regarding the predictive accuracy are in broad agreement with the mainstream literature. Static measures, such as the VRAG have been shown to have modest to moderate effect sizes (e.g., Area Under Curve (AUC) in the range .69-.73; Quinsey, Book, & Skilling, 2004; Gray, Fitzgerald, Taylor, MacCulloch, & Snowden, 2007; Lindsey et al., 2008). Whilst dynamic measures demonstrate moderate to high effect sizes for violence (e.g. AUC in the range .72-.79; Grey et al., 2007; Lindsay et al., 2008; Steptoe, Lindsay, Murphy, & Young, 2008). Dynamic measures also demonstrate moderate to high effect sizes in predicting sexual offending (e.g. AUC in the range .75-.92; Blacker, beech, Wilcox, & Boer, 2010; Lofthouse et al., 2013).

Several authors have also begun to question the suitability of the terms static and dynamic to differentiate between risk factors. Beech and Ward (2004) and Mann, Hanson, and Thornton (2010) suggest it does not make psychological sense to conceptualise risk in this manner. These authors propose that both static and dynamic risk factors are better understood as *psychologically meaningful risk factors* or *propensities* (Mann et al., 2010) based on the notion that they are measuring enduring characteristics of the offender, similar in concept to traits. Following this model, Beech and Ward (2004) hypothesise that static risk factors are markers for underlying dispositions while dynamic risk factors are current psychological markers of the same disposition.

This hypothesised model has yet to be empirically tested. The aim of the present paper was to apply a methodological framework developed by Kraemer, Stice, Kazdin, Offord, and Kupfer (2001) to explore the relationship between static

and dynamic risk factors in individuals with an intellectual disability (ID) who have forensic histories that include acts of violence.

Method

The Kraemer et al. (2001, 2010) methodological framework

Kraemer's model of the functional relationships between risk factors was developed within the context of public health research but is equally applicable to any research that seeks to understand the role of risk factors in the aetiology of a condition or event. Kazdin and colleagues (1997) highlight the inadequacy of the majority of studies seeking to identify risk factors. Studies with cross-sectional designs can, at best, identify correlates of an outcome, while even longitudinal studies frequently assume that separate risk factors will only have independent main effects in relation to an outcome. To understand how risk variables may work together in relation to an outcome, it is important to begin with an understanding of the processes through which risk factors operate (Kazdin, 2007). These processes are likely to be multifaceted. For example, apart from a minority of occasions (i.e., single gene disorders), a single risk factor is unlikely to entirely explain the occurrence of a complex outcome (e.g., psychiatric disorder) (cf. Kraemer et al., 2001).

Having first established that variables are risk factors for a specific outcome, the following three issues determine the nature of their relationship: 1) *temporal precedence* of risk factors (e.g., whether dynamic precedes static risk in time, or vice versa), 2) *correlation* (whether risk factors are associated), and 3) *dominance* which refers to whether better prediction of the outcome is achieved by the presence of any

one of the risk factors (having this one or this one leads to the outcome), both/all risk factors together (having this one and this one together), or the presence of just one of the risk factors alone. Depending on the answer to these three questions, risk factors may be either: (a) proxy, (b) overlapping, (c) independent, (d) mediators, or (e) moderators (Kraemer et al., 2001; Kraemer, 2010).

Participants

Participants included 212 male adults with an ID or low IQ and offending behaviour. All were resident in one of three specialist forensic services: high secure (n=73), medium/low secure (n=70), and a community service (n=69). The mean full scale IQ of the total group (N=212) was 66 (SD = 8.6, range 43- 89), mean age 37 years (SD = 11.5, range 18-69 years), and mean length of stay in the setting 8.4 years (SD = 7.7, range 1-53 years) (for further details see Hogue et al., 2006; Lindsay et al., 2008).

Assessment Process

Dynamic and static risk was evaluated from information available in participants' clinical files. This information was routinely collected by nursing staff as part of clinical practice. All staff responsible for reviewing, collecting, and recording information as part of the research study attended a one week training course to ensure consistency in data collection across the three sites. Ethical approval was granted at all three sites before data collection commenced.

For the purposes of the present research, data were drawn from three risk assessment tools: one static, and two dynamic. The three measures were chosen because in earlier analyses they demonstrated the highest predictive accuracy for

violent behaviour using the AUC statistic (VRAG = .71; Emotional Problem Scales - Behaviour Rating Scale (EPS-BRS; Prout & Strohmer, 1991) Externalising = .75; Short Dynamic Risk Scale (SDRS; Quinsey, 2004) = .72) (Lindsay et al., 2008).

Measures

Violence Risk Appraisal Guide (VRAG; Quinsey et al., 1998). The VRAG is a 12-item actuarial assessment tool designed to assess risk of violence. The tool has been used widely across different client groups and cultures. More recently, the ability to predict violent behaviour with individuals with an ID has been demonstrated (Gray et al., 2007; Lindsey et al., 2008; Quinsey et al., 2004). The VRAG measures static risk factors: living with parents to age 16, school maladjustment, history of alcohol problems, marital status, criminal history, failure on prior conditional release, age at index offense, victim injury, victim gender, presence of personality disorder, or schizophrenia (DSM III), and PCL-R score (Psychopathy Checklist – Revised; Hare, 1991, 2003). Individuals are assigned a 'bin' score ranging from 0-9 (range in the current study: 3-8). A higher bin score indicates a greater risk of reoffending/future violence.

Emotional Problems Scale-Behavior Rating Scale (EPS-BRS; Prout & Strohmer 1991). The EPS-BRS is designed to identify maladaptive behaviours and emotional problems among adolescents and adults with a mild to borderline ID. Beyond this, the measure has shown potential utility for assessing treatment need and outcome in offenders with an ID (Hogue et al. 2007) and as a dynamic indicator of violent behaviour (Lindsey et al., 2008). The EPS-BRS is a proxy informant scale that contains 135 items yielding 12 clinical scales. Four of these scales (physical aggression, verbal aggression, non-compliance, and hyperactivity) are combined to

form Externalising Behavioural Problems. The EPS-BRS Externalising subscale includes 43 items and is scored by rating the frequency the individual engaged in the identified behaviour problem in the prior month, on a scale of 0 (never) -3 (often). A maximum of 129 can be scored (range achieved in the present study: 0 – 114). The EPS-BRS Externalising subscale was completed for each participant by a member of their nursing team, and then scored by a member of the research team. Due to a range of difficulties including insufficient information in case notes, inability to contact professionals and carers, the EPS-BRS Externalising subscale was completed for 169 participants out of total 212 (high secure = 59, medium/low secure = 55, and community = 55).

Short Dynamic Risk Scale (SDRS; Quinsey, 2004). The SDRS consists of eight dynamic risk items: responsibility for behaviour, coping skills, anxiety, anger, hostile attitude, lack of consideration for others, adaptive skills, and self care skills. Items are rated on a 0-4 scale, thus giving a maximum score of 32 (achieved range in present study: 0-30, a higher scores indicate a higher risk of aggression) to describe the individual's presentation during the past month. The SDRS has been shown to significantly predict violent incidents among offenders with ID (Morrissey, Mooney, Hogue, Lindsay, & Taylor, 2007; Lindsay et al., 2008). The SDRS was also completed by members of the nursing staff team, and then scored by the research team. Due to the data collection problems outlined above, the SDRS was completed on 145 of the total 212 participants (high secure = 48, medium/low secure = 49, and community = 48).

Assessment of violence outcome

Violent incidents were monitored by staff in each service and recorded in the nursing notes as part of routine clinical practice. For research purposes, and independent of the staff recording, data relating to significant incidents were collated concurrent to data collection, over a six month period. Violent incidents were defined as damage to property, and verbal or physical aggression. Inter-rater agreement on whether a recorded incident was categorised violent was 100% (Lindsay et al., 2008). Violent incident data were extracted from the official computerised systems for recording incidents at each of the three sites. The records contained a description of the incident, the individuals involved, and any resulting injuries. From this information, raters manually scored the data into yes or no for whether the individuals engaged in violent behaviour. Of the 212 participants, 157 were scored as yes, 48 as no, and there were missing data for 7 participants.

Results

Criteria for establishing the relationship between risk factors.

Dynamic and static risk as measured by VRAG, EPS-BRS, and SDRS are established risk factors for violence in the adult ID population. To define how these static and dynamic risk factors work together, the issues of: (a) temporal precedence, (b) correlation, and (c) dominance (Kraemer et al. 2001) were explored.

To proceed with this analysis, the scores of each measure were dichotomised using a cut off score (cf Kraemer et al., 2001). The cut off for the VRAG was defined empirically during the development of the tool (Harris, Rice, & Quinsey, 1993) and corresponds to the boundary between the fifth and sixth bins. Therefore, every participant with a VRAG bin score above this cut off was described as likely to be

involved in a new violent behaviour, and those with a score below were defined as not likely to be violent. The cut off score for the EPS was also established by the test authors (Prout & Stohmer, 1993). The more stringent cut off that corresponded to the “significantly elevated” (equal to or greater than the 98th percentile) range was used in preference to a score in the “notably elevated” range. The variable was dichotomized into elevated score versus a non elevated score.

There is no established cut off score for the SDRS (V. Quinsey, personal communication, September 7, 2010). To select an appropriate cut point to dichotomise the variable into a prediction of likely or unlikely to be involved in a violent incident, we used data generated in another study (Lofthouse et al., 2013) of a dynamic risk assessment tool (The Assessment of Risk and Manageability for IndividualLs who Offend Sexually (ARMIDILO-S); Boer, Tough, & Haaven, 2004) designed specifically for ID offenders. This method was adopted to ensure that the cut off was established independent of our study data and therefore did not introduce bias.

We did this by first identifying the percentile in the ARMIDILO-S score distribution that corresponded to the cut-off score indicated by the AUC of the ROC analysis to predict offending behaviours. We then identified the SDRS raw score (13) that corresponded to that same percentile. This raw score was used to dichotomise the distribution of SDRS scores. As previously stated, we followed this procedure to ensure that a decision about a suitable cut-off point was made independent of the data in the present study (e.g., rather than use a median split based on the current sample, which would bias the analyses).

Temporal precedence

It was relatively straightforward to establish temporal precedence between the static and dynamic risk factors. The static measure (VRAG) contains items drawn solely relating to the individual's history (e.g., lived with both biological parents to age 16). The SDRS focuses on problem behaviours that occurred at any time in the past month. The EPS-BRS Externalising scale also requires raters to score behaviours occurring within the past 30 days. Therefore, relative to each other, the static VRAG is temporally precedent to the two dynamic measures. No analysis is required to determine temporal precedence – it is a matter of logic and defined through the data collection procedure.

Correlation

The question of correlation in this methodological framework aims to establish whether there is a relationship between the two risk factors. The correlation between the VRAG and the EPS externalizing scale was (Cramer's V) .162 ($p < .044$), and the correlation (also Cramer's V) between the VRAG and SDRS, was .373, ($p < .001$). Kraemer et al. (2001) do not provide a specific cut-off for deciding when a correlation is present or absent. While the strength of these correlations is small - medium, they are significantly different from zero (as indicated by their p values). We concluded that the correlation between the static and either dynamic variable is non-zero (i.e., a correlation is present) in the present sample.

Dominance

Dominance in risk research is defined by determining which risk factor or combination of risk factors can predict the outcome with greater accuracy (Kraemer

et al., 2001). Therefore, it was necessary to explore whether the prediction achieved by the static risk measure alone, the dynamic risk measure alone, either risk measure, or both risk measures together has the largest agreement with the actual frequency of the outcome. If the prediction based on one risk measure alone has the largest agreement with the actual observed frequency of reoffending, that measure dominates the other (Kraemer et al., 2001). Alternatively, if one is not superior to the other in predicting risk (static or dynamic achieve similar levels of agreement with the reoffending frequency) or both are required (static and dynamic together achieve the best results), the two measures co-dominate risk prediction (Kraemer et al., 2001).

To determine dominance, the predicted probability of violence as indicated by each of the three measures was compared to the observed frequency of violence. The extent of agreement between predicted probabilities and the observed frequencies was measured using Cohen's kappa. Table 3.1 presents the kappa values measuring the agreement between observed frequencies of violence and (a) probability of violence according to the VRAG, (b) probability of violence according to the EPS-BRS, (c) probability of violence according to the SDRS and (d) combinations of predicted probabilities from all measures (AND combinations, and OR combinations). For the OR combination, a score above cut-off on *either* measure was counted as "probable violence". For the AND combination, an individual had to score above cut-off on *both* assessments to be considered likely to be violent.

In the context of determining dominance, the magnitude of the kappa is of interest only in comparative terms and not absolute terms (i.e. to establish which type of risk factor or risk factor combination achieves the largest agreement; the strength of the agreement is not of interest). The results of these analyses (Table

3.1) indicate that the VRAG's prediction of violence has the largest agreement with the observed frequencies of violence ($\kappa = .241$), suggesting that the static risk measure dominates the dynamic ones in risk prediction.

Following the three principles outlined by Kraemer et al. (2001), it was concluded: (a) there is an association between the static and the two dynamic measures, (b) information from the static measure precedes information from the dynamic measures in time, and (c) using the static measure dominates the dynamic ones in predicting risk. Following Kraemer et al.'s (2001, p. 852) guidance in their Table 3.2, it was concluded that the dynamic risk factors (SDRS & EPS-BRS) are proxies for static risk (VRAG).

Table 3.1 Comparison of the predicted probability of offending with the actual frequency of offending

Predicted re-offending vs observed re-offending	Agreement (Cohen's Kappa)	Significance level
VRAG vs. Reoffending	.241	.001
EPS vs. Reoffending	.086	.040
SDRS vs. Reoffending	.176	.001
(VRAG AND EPS) vs. Reoffending	.057	.027
(VRAG AND SDRS) vs. Reoffending	.126	.000
(VRAG OR EPS) vs. Reoffending	.086	.072
(VRAG OR SDRS) vs. Reoffending	.053	.159

Table 3.2 Proposed definitions of how risk factors A and B work together to affect outcome O*

Condition		Status		
Correlation of A & B?	Yes	No	Yes	No
Temporal Precedence?	Yes	Yes	No	No
Domination?				
A dominates	B proxy risk factor	B proxy risk factor	B proxy risk factor	
Codomination	B mediates (total)	A moderates	Overlapping	Independent
B dominates	B mediates (partial)		A proxy risk factor	

Discussion

This study represents the first attempt to investigate empirically how static risk factors that are fixed historical and demographic characteristics of the individual, work together with changeable or dynamic risk factors to predict violent behaviour in offenders with an ID. Applying the conceptual and methodological framework proposed by Kraemer and colleagues (2001, 2010), allowed us to explore the inter-relationship of risk factors using a standardised approach that has been developed outside the offending literature. Its application in the prediction of violence permits a more detailed understanding of the process that leads to violent behaviour in individuals with an ID.

The results indicated that dynamic risk factors, as measured by the EPS-BRS and SDRS, were proxy risk factors for static risk (as measured by the VRAG). This suggests that dynamic factors are likely to be a component or an indicator of the general risk assessed using static tools. In the context of public health research, if a risk factor is identified as proxy, Kraemer (2010) suggests excluding the proxy from further consideration, particularly if it is a less reliable measure of the global risk

factor. We would argue that this should not be the preferred option in the field of forensic ID. If future research replicates our findings of a proxy relationship in the context of offenders with ID, we propose that dynamic risk factors should not be excluded from consideration but should be an essential component of predicting and preventing violence. We base our argument on three key considerations.

First, moderate to high predictive effect sizes (AUC range .72 - .92) for dynamic risk measures found in recent studies suggest that the predictive accuracy of dynamic measures may be greater than that of static measures in this population (Lindsay et al., 2008; Blacker et al., 2010; Lofthouse et al., 2013). Therefore, dynamic risk assessment are a powerful tool in assisting risk prediction for this population, and, at times, may be better than static risk assessment.

Second, the information needed to complete dynamic risk measures is typically more easily accessible. With an emphasis on recently observed behaviour, dynamic risk can be assessed by a member of staff who has known the individual for a relatively short period of time (even as short as one month), and removes the need to access historical case notes or rely on staff who have a long history with the individual. This may resonate well with information accessibility in clinical services. In addition, the type of information captured by dynamic scales has greater utility in the management of risk. Dynamic measures often contain variable risk factors that change spontaneously (e.g., age) or through intervention (e.g., lack of support) (Kraemer et al., 1997) and consequently can be used to monitor changes in the individual offender's presentation and risk status through time (Harris & Hanson, 2010). Dynamic risk measures also have the benefit of being temporally closer to the violent incident than static measures focusing on a feature in the individual's

history. If an individual is identified as being a high risk case, a dynamic assessment measure could provide immediate information for an intervention plan. Furthermore, the individual's risk level could be reduced in the short term by taking into account and manipulating dynamic risk factors accordingly.

Finally, findings from the present study suggest that the two distinct approaches are capturing elements of the same underlying risk. This finding leads us to conclude that a dynamic approach to assessing risk would not result in the loss of any of the information that a static measure would capture. In light of the strengths of the dynamic approach, and our understanding of the key role dynamic risk factors play in the processes that account for violent behaviour, we argue that it is worthwhile investing future research effort on dynamic risk factors.

In our study, the identification of a proxy relationship between static and dynamic risk is consistent with Beech and Ward's (2004) integrated model of risk factors. That is, the two assessment types are not independent but appear to be measuring the same underlying risk in a different way. Thus, our findings add to the argument that future risk assessment research should combine the two clinical domains (static & dynamic), and focus primarily on the offenders psychological dispositions (Beech & Ward, 2004). The authors claim this approach will benefit future risk assessment, theory directed research and result in treatment advances.

Limitations

Whilst our research facilitates an empirical understanding of the relationship between underlying risk factors and how they relate to violence, prevention and effective treatment programmes need to be structured on causal risk factors

(Kraemer et al., 1997). Therefore, further research is needed to identify the possible casual nature of psychologically meaningful risk factors in relation to violence with offenders with an ID.

In this study, the SDRS is used as a dynamic risk tool. It should be noted that to date, the measure has only been used in a single study (Lindsay et al., 2008), which uses the same source of data as the current study. This is unavoidable given the limited data available assessing dynamic risk factors with offenders with an ID. Future research with different samples of offenders with an ID is needed to provide further assessment of the accuracy of the SDRS as a risk prediction tool in this population.

In summary, this study demonstrates a novel application of a methodological approach to understanding the theoretical relationship between risk factors for violent behaviour in offenders with an ID. Replication is required to confirm or refute our findings and to further explore how risk factors work to predict different types of offending behaviour. Although in our study dynamic risk factors were found to be a proxy for static risk factors, the risk presented by the individual can be influenced by taking into account and manipulating dynamic risk factors. If future research confirms our finding that dynamic risk variables are proxy for static risk variables, this will be of interest for informing risk assessment development, opportunities for preventative intervention, and management approaches for this population.

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Chapter 4³ - Risk factors for aggression: A qualitative analysis of the perceptions of offenders with an intellectual disability

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Abstract

Background Research studies report that aggression and violence are the most prevalent challenging behaviours in the histories of offenders with an intellectual disability (ID), and the most common reason for admission to secure services. There is an absence of literature examining causes of aggression from the perspective of individuals with an ID.

Method Ten adult men with an ID were interviewed focusing on recent incidents of aggressive behaviour and occasions they successfully managed their behaviour without becoming aggressive. Data were analysed using thematic analysis.

Results Three overarching themes were identified: (a) hospital environment, (b) personal mental health characteristics, and (c) self management.

Conclusion Participants identified a limited number of personal characteristics as risk factors for aggression, and they predominantly attributed aggression to external triggers, suggesting a high external locus of control. The findings highlight important risk factors for consideration when assessing and managing aggressive behaviour by individuals with an ID.

A proportion of individuals with an intellectual disability (ID) engage in behaviours that are termed 'challenging'. Such behaviours include self injury, destructiveness and physical aggression, amongst others (Emerson & Einfeld, 2011). Research studies report that aggression and violence are the most prevalent challenging behaviours in the histories of offenders with an ID who are admitted to inpatient secure services, and the most common reason for admission (Lindsay et al., 2012; Lindsay et al., 2010; Lunsky et al., 2011). Once in receipt of services, engaging in aggressive or violent behaviour may preclude successful integration into the community, damage social networks and lead to the breakdown of placements (Cooper et al., 2009).

Risk assessment and prediction is usually considered to be the first stage in an attempt to reduce aggressive behaviour (Wong, Olver, & Stockdale, 2009). Thus, it is considered a key component of clinical practice (Monahan 1992) and is often used in legal contexts. In line with this, numerous risk assessment measures have been developed for populations without an ID, to improve the consistency and validity of risk prediction. In contrast, the construction of risk tools specifically developed to assess offending behaviour by individuals with an ID has been limited. Only two measures currently exist; the Dynamic Risk Assessment and Management System (DRAMS; Lindsay et al., 2004) and The Assessment of Risk and Manageability for IndividualS who Offend Sexually (ARMIDILO-S; Boer, Tough, & Haaven, 2004). Both risk assessments include dynamic risk factors drawn from the developers own clinical experience working with offenders with an ID and the literature relating to offenders without an ID.

The use of risk items derived from the general offender literature could compromise the validity of ID specific risk assessment tools such as the ARMIDILOS and DRAMS. Some researchers have questioned whether predictive risk factors associated with offending in general offenders are similarly associated with reoffending by individuals with an ID. In an article addressing risk and recidivism in sex offenders with an ID, Craig (2010) acknowledged that whilst certain characteristics overlap with general offenders (e.g. cognitive distortions), there are also characteristics that are unique to offenders with an ID (e.g. knowledge of relevant laws). This argument is supported by Camilleri & Quinsey (2010) who distinguish between anti social characteristics that are likely to occur as a direct result of an intellectual disability (e.g. lower socio economic status) and are therefore more pertinent to offenders with an ID, and risk factors that are common to all offender groups (e.g. familial criminality).

It is important to understand which risk factors or criminogenic needs (Andrews et al., 1990) are associated with offending in individuals with an ID to inform the development of specialised risk measures (Camilleri & Quinsey, 2010) and to identify treatment needs (Lindsay et al., 2012). Furthermore, research that seeks to understand the unique profile and needs of individuals with an ID and forensic issues may assist discharge planning (Lunsky et al., 2011).

Few studies have directly investigated the association between risk factors and offending behaviour from the perspective of the individual with an ID. Studies eliciting the views of individuals receiving or witnessing interventions for challenging behaviour (e.g., physical aggression) have alluded to possible links between risk factors and subsequent challenging behaviour. For example, in a study exploring the

acceptability and experience of restraint procedures, individuals with an ID considered being angry, upset, and causing trouble, led to implementation of restraint procedures (Jones & Kroese, 2008). As part of a larger study addressing aggression and physical intervention in a forensic ID setting, Fish and Culshaw (2005) used phenomenological analysis to explore what support staff and clients felt was important about this topic. Unlike staff, who attributed aggression to factors that emerge over time, clients (N=9) reported immediate provocation and situational factors including the ward atmosphere and other clients as the primary reasons for their aggression. Clients felt that 'time out' in their bedroom and having the opportunity to discuss their feelings would help them calm down and avoid the need for physical restraint procedures. Like the majority of studies in this area, the prevailing concern was participant's experience of physical intervention for challenging behaviours in general, which limits the scope of the findings with regard to aggression.

In the only published study exploring the perspective of people with an ID as a method of understanding risk factors for offending behaviour, Isherwood, Burns, Naylor, and Read (2007) interviewed six participants with an ID in medium and low secure facilities, with regard to the history and development of their offending behaviour. Isherwood and colleagues found that individuals provided social rather than psychological explanations for the cause of their offending behaviour, including victimisation and interpersonal difficulties. This research was important in terms of eliciting the narrative of individual offenders to explain and understand the development of their offending behaviour. However, the study addressed offending behaviour in general (including inappropriate sexual behaviours and arson) and did

not allow for an understanding of which factors were associated with specific types of offending behaviour. Furthermore, the methodology used in the study relied on the individual's long term memory to recall events throughout their lifespan.

The aim of the present study was to increase our knowledge and understanding of dynamic risk factors by drawing on the unique insight of individuals with an ID, using a qualitative method of enquiry. Participants were asked to share their thoughts, feelings and perceptions with regard to recent aggressive and settled behaviour. Although clinically such questions might be asked of offenders with an ID in the course of therapy, there are no published studies using this methodology within a research context.

Method

Participants and setting

The study participants were 10 adult men with an ID and a history of offending behaviour that included aggression. Participants were receiving care in one of two small independent hospitals for men provided by an independent specialist mental health and ID service within North Wales and North West England. The mean age of participants was 38.3 years (range: 25-58 years). All 10 participants were considered to have a mild ID by service managers, although formal IQ data were not available. A summary of the participants' demographic information can be found in Table 4.1. This includes offending history, length of stay, any psychiatric diagnosis, detention under the provisions of the Mental Health Act (2007) and measure of participants adaptive skill level (Adaptive Behaviour Assessment System (ABAS-II; Harrison & Oakland, 2003)) to represent the degree of ID.

Table 4.1 Participant demographic information

<i>Participants</i>	<i>Summary of forensic history</i>	<i>Diagnosis</i>	<i>Mental Health Act(1983) Section</i>	<i>Adaptive Behaviour Assessment System (ABAS -II GAS)</i>	<i>Length of stay</i>
1	Indecent assault Arson	Mental Illness Emotionally Unstable Personality Disorder	37/41	70	11 months
2	Violence Sexually inappropriate behaviour	Mental Illness Impulsive Challenging behaviour	Informal	65	10 years
3	Arson Grievous Bodily Harm Criminal damage	Mental illness	3	60	5 years 3 months
4	Assault Sexual assault	Learning Disability	Informal	65	3 years 6 months
5	Threatening/abusive behaviour Indecent exposure Indecent assault Threats to kill	Learning Disability	3	84	6 years 7 months
6	Disruptive behaviour Damaging property Self harm	Learning Disability Autism	37	64	3 years 4 months
7	Damage to property Criminal damage Handling stolen goods Assault	Psychopathic Disorder	3	57	2 year 4 months

Table 4.1 (continued)

<i>Participants</i>	<i>Summary of forensic history</i>	<i>Diagnosis</i>	<i>Mental Health Act(1983) Section</i>	<i>Adaptive Behaviour Assessment System (ABAS -II GAS)</i>	<i>Length of stay</i>
8	Arson Damage to property Offensive weapons Criminal damage Threats of arson	Learning Disability	3	65	4 years
9	Aggression Arson Theft Criminal damage Indecent calls Indecent telephone calls	Anti social Personality Disorder Learning Disability	3	85	3 years 9 months
10	Arson Racially threatening behaviour to cause fear Battery & common assault	Paranoid schizophrenia Mental Illness Drug induced Psychosis Personality Disorder	3	90	1 year 5 months

Interview schedule

An interview guide was developed to elicit participants' perception of dynamic risk variables related to aggressive behaviour and factors that influence their ability to abstain from such behaviour. The interview guide used open questions to encourage discussion and prompts to allow elaboration of important topics as they arose. The research team were keen to minimise the number of abstract questions presented during the interview such as "tell me about the last time you found it difficult to cope." Abstract questions place greater demands on the participant's language abilities (Prosser & Bromley, 2001) and are problematic because they rely on the individual's ability to recall events from memory. To reduce the cognitive demands and provide a 'concrete' focus, the interviewer provided a brief outline of a recent incident in which the participant had been involved and used this as the basis for initial discussion.

Behaviours of clinical significance are routinely recorded by support staff as part of hospital procedure. Behaviours include self harm, abusive and threatening behaviour, damage to property, violence to others and absconding. Only those categorised as either: a) violence to others, b) abusive/threatening, or c) damage to property, within the previous six months were included as the focus for the current study. The first author extracted the incident data for each participant from the computerised incident recording system. Details were used to prompt the individual's recollection, without biasing their accounts. For example: 'can you tell me about the situation in the kitchen with Fred?'

Data collection

The study received full ethical and governance approval from Bangor University Ethics and Research Governance Committee, and locally from the senior management team of the service provider. Participants were recruited through the multi disciplinary team (MDT). Staff members were informed of the study and asked to identify participants who had a history of offending behaviour and had the necessary verbal skills to take part in an interview. Individuals who had demonstrated aggressive behaviour in the previous six months alongside individuals who were experiencing a period of stability recently and had not behaved aggressively in response to triggers/stress were included. This is because we were interested in exploring the factors that individuals perceived to be linked to their aggressive behaviour alongside those they associated with settled behaviour.

Potential participants were initially approached by a member of the MDT to introduce the project. Those who expressed an interest in taking part were invited to meet with the first author to talk in more detail about the study. This discussion was facilitated by use of an easy read information sheet which was developed in collaboration with the service provider's psychology team to ensure it reflected the terminology commonly used by the client group and within the settings in which they lived. The initial meeting also provided an opportunity for the researcher to conduct a formal capacity to consent assessment and to establish rapport with potential participants. Those participants who agreed to take part, and were assessed as having the capacity to consent, were asked to sign and date a consent form. No participants were excluded from the study after the initial meeting with the researcher (i.e., all were assessed as having the capacity to consent and provided their consent).

Interviews were conducted in the hospital setting the day after informed consent was gained. This timeframe was recommended by the psychology team within the service, based on their knowledge of the client group. One day was considered an appropriate length of time to ensure the individual had the opportunity to discuss their participation with a person unconnected to the research, and to change their mind with regard to their involvement if they so wished.

To encourage participants to feel at ease during the interview, they were given the option of having a member of the psychological team present, which all 10 participants accepted. At the beginning of each interview, the researcher gained verbal confirmation that participants were willing to remain involved in the study. Interviews lasted on average for 20 minutes and were recorded using a digital voice recorder.

Data Analysis

Thematic analysis (Braun & Clarke, 2006) was used to identify salient and recurring themes concerning participants' experiences of aggressive incidents and occasions they successfully refrained from aggressive behaviour. Given the paucity of prior research on this topic, the present study incorporated a data driven inductive approach to identify themes. Analysis began with the process of familiarisation with the data. Once the first author had transcribed the interviews, they were added to the ATLAS.ti 6 data analysis software. Transcripts were read and re-read in a process of familiarisation, whilst preliminary meaningful segments of text were coded. Phase 2 involved a more systematic procedure of coding all features relating to the individual's experience and their perceptions of aggressive and stable behaviour

resulting in a total of 103 codes (e.g., “other people winding me up”). In phase 3, the identified codes were grouped into potential themes and sub-themes (e.g., negative interactions with peers).

By Phase 3 of the analysis, three clear overarching themes were developed that encompassed six sub-themes. Two themes described participants’ perceptions and evaluations of their aggressive behaviour, whilst the final theme related to abstaining from aggression. Phase 4 involved reviewing and refining the identified themes and occurred simultaneously with Phase 5: defining and naming themes. Although Braun and Clarke (2006) provide step-by-step guidance, they highlight the reflexive and iterative nature of qualitative research that means researchers move back and forth through the stages as they make sense of the data. Therefore, the analysis did not always proceed in a linear manner.

The coded extracts initially assigned to each theme were discussed with the co-authors to confirm coherence, resulting in the final thematic framework (see Table 2). This discussion facilitated the interpretative stage and focused on uncovering meaning in relation to the men’s perceptions of their aggressive and non aggressive behaviour and the implications for future attempts to assess risk in this field. In the final stage of the analysis (Phase 6 – reporting findings), we present the thematic framework with an explanation of the meaning and relevance of themes supported by extracts of data.

Credibility check

To establish coherence and replicability of themes, a co-author (GG) coded the transcripts of two randomly selected interviews using the coding list developed

by the first author. At this stage, the codes and themes were closely studied to ensure they were representative of the data, and existing broader themes were broken down into smaller themes.

Results

Analysis of participants' responses concerning their thoughts, feelings and perceptions of what leads to their aggressive behaviour or the ability to avoid an aggressive response identified three main themes: (a) the hospital environment, (b) personal mental health characteristics, and (c) self management (See Table 5.1 for themes and subthemes). Each theme and its constituent sub-themes are described in turn. Extracts of participants' accounts have been selected to demonstrate the relevance of each subtheme.

Table 5.1 Summary of the key themes and sub themes identified in the data set

1. *Hospital environment*

- 1.1 Restrictions
- 1.2 Changes in the environment
- 1.3 Negative interactions with peers
- 1.4 Negative interactions with staff

2. *Personal mental health characteristics*

3. *Self management*

- 3.1 Self Control
- 3.2 Recognising negative consequences

Theme 1: Hospital environment

This overarching theme describes participants' perceptions and evaluations of the nature of the environment in which they resided. This encompassed both the physical aspects and the social context. Participants' descriptions were overwhelmingly negative when speaking about the hospital environment. There was a general sense of discontent when participants spoke about restrictions on their liberty, lack of progress and living with a large number of individuals in particular.

1.1 Restrictions

Participants expressed resentment toward the secure nature of the setting, and the limits placed on their personal freedom. This sense of restriction and confinement resulted in feelings of frustration, anger, and a lack of control and autonomy:

'Frustration being cooped up 23 hours a day, it's not easy. Especially with you've got the threat of LSU [low secure unit] over there, anybody steps out of line now you are over there, that is it, no questions asked' (7).

Two participants described feeling 'stuck' in the hospital, and were frustrated by the uncertainty of their future: *'It's just worse than prison. I'd rather go back inside. To do years whatever, 'cos at least you know when you're getting out then. 'Cos you don't know when you are getting out' (6).*

'Well other people were moving on and I was stuck behind, you know' (1).

Most participants were unhappy living in a hospital setting and were concerned with moving on: *'I want to be back out in the community really, lead a normal life. Not in a hospital sort of thing' (1).*

‘Just a bit worried I’m going to be here for years and that’ (10).

‘The nurses and staff and all that, psychologist sort of thing say yes he is ready (resettlement) but the other half, other people say we’re not quite sure, give him another year’ (2).

Three participants compared their own progression through the system to that of their peers and felt it was unfair and unjust:

‘Kind of depresses you, I mean, it’s supposed to be our home in a sense and yet people are doing that (fighting) and they are getting out before the likes of me when I hardly don’t do nothing. Alright I put my window through about two months, but that’s the only thing I’ve really done, seriously’ (8).

On occasions, participants could describe a range of environmental factors that accumulated and contributed to an episode of aggressive behaviour. For example, participant 3 was frustrated with his resettlement plans, he felt unable to manage his frustration through engaging in relaxation exercises in his bedroom, for fear of disturbing his peers. Consequently, he felt overwhelmed and engaged in aggressive behaviour: *‘And I have put up with it for 24 hours and I exploded really bad, big time at 3 o’clock. I even had a go at (staff) and he had only just walked in the door’ (3).*

1.2 Changes in the environment.

Five participants made reference to the distress caused by changes in their environment. Changes ranged from moving between hospital units to changing the

date of meetings or cancelling days out, and were linked to subsequent acts of aggression.

Participant 4 offered the following explanation for why he had behaved aggressively recently, it shows his frustration over the lack of control he has over his life: *'Well it's 'cos she (Psychiatrist) said one weekend that I couldn't go home'* (4).

Participant 9 described his aggression occurring *'because it was my first time in an institute. I found it a bit strange when I first came here. Because it was all new and that'* (9).

'I moved up from X (ward in hospital) to Y (ward in hospital) and it's been, since I moved to Y it's just been too much stress for me and I just can't cope' (6).

Changes to routine or unexpected alteration to plans had a negative impact on individual's behaviour and can be linked to a feeling of lack of autonomy, demonstrated by the following participant's explanation for a recent aggressive act:

'Different things changing around and saying meetings are on one day and they're not on that day and just getting all mixed up' (5).

1:3: Negative Interaction with peers

Participants had a broadly negative perception of living with and interacting with peers, and reported a lack of cohesion amongst residents. Nine participants attributed the negative behaviour of their peers as a cause of instances of aggression. The most common attributions for aggressive responses were verbal provocation or verbal abuse by peers. This was demonstrated by the use of terms such as *'goading me'*, *'winding me up'*, and *'saying horrible things to me'*.

The following examples represent several participants who made a link between the behaviour of others and their subsequent aggression. *'When patients upset me or people like staff wise or people around me, they talk about me, sometimes they upset me and I get annoyed' (10).*

Interviewer: What do you mean by people upset you?

'Well like winding me up and like ...erm... shouting and thinking not true or why, talking stupid questions and trying to confuse your mind and that' (10).

'Certain resident here, and he was winding me really bad style about a football team, whatever. And one day this team lost, and he was just winding me up, he had been winding me up for about six months. Each week he used to say something wrong and I just flipped and punched him a few times' (5).

Population density and proximity to others was reported to make living conditions intolerable at times, contributing to episodes of aggression, as highlighted by participants 10 and 7:

'About 25 patients in the building it's a bit worrying and stressful 'cos there's too many people' (10).

'So many people that you are just like 'argh leave me alone' that is what you are like' (7).

Participants frequently reported feeling angry and frustrated as a result of interactions with peers. For example, participant 5 was asked how he felt during a disagreement with a peer, and he replied *'Really angry and everything. I gave him*

(peer) plenty of warnings but enough was enough and I just exploded, just took it out on him' (5).

Other behaviours participants spoke of as provoking aggression included: physical provoking, peers interfering in their business, asking to borrow possessions, and intentionally causing trouble (e.g., by telling lies and talking about other people). The following quotes illustrate the belief held by some participants that their peers intentionally caused conflict:

'But he likes to get people in trouble. He's saying, he said, he's telling that other patients not to talk to me' (4).

'That (peer's name) causes a hell a lot of bother on me, even (staff name) warns him about it, the home manager and he never listens to him, and (staff name) as well, he never listens to staff either' (2).

1:4: Negative interactions with staff

The majority of participants viewed support staff as instrumental in reducing their own risk of aggression by providing practical and social support. However, six participants attributed the causes of some instances of aggression to interactions with staff. Participants appeared resentful at having to rely on staff to meet their needs and the sometimes unhelpful approach toward them. It was evident from these accounts that participants sensed an imbalance of power between staff and residents. Demonstrated by the following comments:

'The staff can make the rules on what to do instead of us lot. It can be horrible, but you get used to it. Got nowhere else to go anyway' (8).

'Just because we are in care and not in our own places. If we had our own places it would be different because we'd have what we need in it and we wouldn't have to argue all the time about what we need. It's like, if I took something away from you what you need you wouldn't like it would you?' (8).

'Sometimes like if I ask someone for help and I don't get it or something sometimes, I build on that as well and like I say 'righty oh I don't want to know you anymore' and I suffer in the long run but I build up and build up and then blow, just take it out on someone. But I am coping with that a lot now' (5).

'At 3pm I kicked off because I didn't like the way I was told to come and see you and I didn't like the way they answered the door when I went to my flat'. (3)

'They weren't giving me the chance to recognise what had done cos it was a mistake and it just made it more and more angrier and angrier' (7).

Participant 6 reported the negative reaction of support staff when he was playing music too loud: *'The staff come down here and have a go at me' (6).*

Theme 2: Personal mental health characteristics

On the whole participants rarely attributed their aggressive behaviour as being their fault or responsibility, instead mostly attributing their aggressive behaviour to external causes. However, two participants appeared to accept some responsibility for their aggression by relating their behaviour to manifestations of their own mental health problems:

'I'm getting very paranoid, and I'm blaming everyone in the house except me and what the real problem is' (3).

Participant 6 made the following reflection on his current episode of depression: *'I just - at the moment I'm not - If anyone says anything to me like that I just mouth off back cos I'm not in the best of moods anymore - recently anyway'*.

Participant 6 also observed the mental health problems experienced by his peer impacting on his own feelings:

'And then we've got another patient who's schizophrenia and he's got, he actually lives next door to me and he just sits, stands at his bathroom and bangs this mirror which really annoys me' (6).

Theme 3: Self management

Participants described a number of strategies they used to prevent their behaviour escalating into aggression. The most common strategy described by seven participants was to walk away from potential stressful situations or access their bedroom to avoid situations that could provoke aggression and thus reduce arousal. Participants also spoke to staff with the aim of working through their problem or to request assistance in dealing with the difficult situation, particularly for diffusing conflict between peers: *'I had to go straight knock on the nursing office door and get a staff out to get (client) moved from my room door so I could use the toilet in my bathroom and he wouldn't move for the staff'* (2).

3:1: Self Control

Participants linked their recent settled behaviour to the ability to control their behaviour before it escalated into aggression. Such techniques were taught via psychological treatment: *'Learnt it all through anger management'* (7); *'Doing my breathing exercises for 15 minutes, my relaxation'* (2). Participants also spoke

broadly about strategies they developed in collaboration with support staff. These included maintaining their distance from peers by accessing their bedroom, and using distraction techniques such as listening to music, watching television, and playing computer games. Reflecting on their recent settled behaviour, participants provided the following examples of techniques for 'keeping out of trouble': *'Keep out of people's ways. If people give me hassle, keep out of people's ways. If they cause trouble go to your bedroom or go outside, stand outside with staff'* (4); *'Sleep, smoke. Do – draw. I usually draw pictures'* (6); *'Just watched TV sometimes or speak to the staff'* (9).

3:2 Recognising negative consequences

The majority of individuals showed awareness that engaging in aggressive behaviour would have negative consequences for themselves, such as loss of immediate privileges or staying in the placement longer and this realisation motivated them to refrain from aggressive behaviour: *'Cause if I hit him I know I would lose everything I got what I've worked for'* (9), *'And now I might lose tomorrow going on the train because I lost my temper'* (3), *'Stop and think really, before your consequences. Don't do that that is wrong really'* (1). Progress and reward was seen as contingent upon good behaviour and was motivation to refrain from engaging in aggressive behaviour: *'Dr X this morning at the ward round she's pleased about a good week, she's read all my good reports and my notes she's pleased, that is why I got an half an hour extra unescorted leave tonight in the grounds after my half hour unescorted shopping tonight'* (2).

Discussion

The aim of the present study was to better understand dynamic risk factors associated with aggressive behaviour by exploring the perspective of individuals with an ID. Participants' identified features within the immediate physical and social environment as triggers for aggressive behaviour, a finding consistent with previous research (Fish & Culshaw, 2005; Isherwood et al., 2007). All participants were able to describe resources to prevent or manage their own aggressive behaviour. Furthermore, participants demonstrated an awareness of the negative repercussions of aggression, and recognised the benefits of settled behaviour, particularly in terms of trips out and future resettlement.

Consistent with a previous qualitative study in this area (Fish & Culshaw, 2005), negative interaction with peers was a prominent risk factor for aggression. This is in contrast to the study conducted by Isherwood and colleagues (2007) in which participants reflected on their relationship with the wider society outside the hospital setting, prior to admission, and reported issues of victimisation, bullying and exclusion as being linked to offending. Although similarly linked to feelings of anger and resentment, in the current study, there was a sense that 'winding people up' involved less malice than bullying and victimisation. This appeared to be more of a reciprocal interaction and a common occurrence between peers within the hospital environment. Boer and colleagues (2007) have suggested that individuals with an ID who sexually offend have difficulty forming and maintaining relationships due to an inability to empathise and sympathise because of cognitive deficits. This could be a possible explanation for the disharmony amongst participants in the present study, particularly those with a history of sexual offending. We surmise that the physical

features of the hospital environment have a considerable impact on relationships between participants. Participants referred to population density, proximity to others and a restrictive environment that limited their opportunity to avoid others. As such, these features within the hospital environment may trigger and exacerbate negative interactions between peers. It might also be the case that individuals would not voluntarily live with their current peers if they were given the choice (Gadon, Johnstone, & Cooke, 2006). Further research is needed to understand the nature of peer interactions that increase the likelihood of aggression occurring.

Our analysis suggested that participants implicate a limited number of personal characteristics as risk factors for their aggressive behaviour. Participants predominantly attributed aggression to external triggers suggesting a high external locus of control. Previous research report an increase in external locus of control following completion of sex offender treatment for individual's with an ID (Langdon & Talbot, 2006; Rose, Jenkins, O'Connor, Jones, & Felce, 2002; Rose, Rose, Hawkins, & Anderson, 2012). This finding is inconsistent with general offenders who demonstrate a shift from external to internal locus of control following sex offender treatment (Langdon & Talbot, 2006). Rose et al. (2002) suggest the findings for the ID population may be a result of treatment that focuses predominantly on externally imposed consequences of future offending. Findings from the current study could indicate that individual's minimised responsibility for their aggressive behaviour. Alternatively, the findings may be due to the perceived lack of control and lack of autonomy participants expressed throughout this study and their reliance upon staff. Research regarding the construct of locus of control and how it relates to individuals with an ID remains speculative and worthy of further investigation.

Participants in the current study associated the experience of mental health problems with the emergence of aggression. Given that individuals with an ID have an increased risk of experiencing mental health problems than non disabled individuals (Cooper et al., 2009) and demonstrate the greatest and most complex needs (Lunsky et al., 2011) reinforces the importance of considering mental health when assessing risk for aggression in this population.

A number of risk factors identified in our study have previously been included in tools to assess sexual offending in individuals with an ID (ARMIDILO-S; Boer et al., 2004) and are worth considering in risk assessments for aggression. They include specific aspects of the physical environment where the aggression occurs e.g., restrictive procedures and practices, being denied access to tangibles, and proximity to other service users. Furthermore, Boer et al. (2004) previously highlighted that changes in the environment such as relocation or disruption to plans may be unsettling or frustrating for the individual and lead to aggressive behaviour.

In line with a recent integrative review (Griffith, Hutchinson, & Hastings, 2012), participants' in our study spoke of the relationship with support staff as impacting on their challenging behaviour. Participants reported an imbalance of power between themselves and staff and a poor attitude on the behalf of staff as risk factors for aggression. Paradoxically, participants also valued the positive and supportive relationship with staff, in which they actively sought staff assistance as a resource for managing their own aggression. Consistent with previous studies (Fish & Culshaw, 2005; MacDonald, McGill, & Deveau, 2010) participants reported that having the opportunity to talk to staff would reduce the likelihood of aggression occurring. These findings imply that the absence of, or deterioration in coping ability or problem

solving may indicate an increased likelihood of aggression occurring and should be considered when assessing risk in individuals with an ID. The conflicting perception of staff implies a complex relationship between the two groups and suggests staff present a dual function as risk factor for aggression but also protective factor.

Limitations and strengths

The study findings also need to be considered in the context of a number of limitations. First, study participants were recruited from two hospital settings and thus the limitations of using a homogenous group must be acknowledged, particularly in terms of generalisability to the wider population of adults with an ID. However, generalisability was not the aim of the current thematic analysis, which instead was an exploratory study to provide insight into the perceptions of a group of individuals with an ID regarding their aggressive behaviour. Second, the context and social demands of the interview may have impacted on participants' responses.

Participants were given the option to have a member of the psychology team present during the interview, which they all accepted. Whilst it was envisaged that this would allay any anxiety for the participants, it might have inadvertently meant participants were guarded in their responses for fear of repercussions. Furthermore, participants may have been uncertain about the role of the interviewer and potentially viewed them as an authority figure. In light of this, they might have responded in a socially desirable manner.

Finally, it is hoped that the qualitative approach permitted the active inclusion of individuals with an ID whose perspectives are often overlooked in research, policy and decision making (Griffith et al., 2012) and will contribute to our limited

understanding of processes that underpin the aetiology and maintenance of aggressive behaviour in this group (Cooper et al., 2009).

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Chapter 5 - Dynamic risk and violence in individuals with intellectual disability: Tool development and initial validation

Abstract

Background For the benefit of individuals with an intellectual disability (ID), for ID services, and for carers, it is important to identify risks for future aggressive behaviour so that proactive management strategies can be implemented. Without such a tool, clinicians and researchers are reliant upon actuarial assessments developed for mainstream offenders or develop their own idiosyncratic risk assessments (Lindsay & Beail, 2004).

Method This study describes the early stages of development of the Current Risk of Violence (CuRV), an informant measure of dynamic risk for aggression in adults with an ID. The pool of items was generated from a multitude of sources including a literature review, consultation with healthcare staff and individuals with an ID, and secondary analysis of dynamic risk data.

Results The 34 item CuRV was found to be a brief, uncomplicated risk assessment tool. Initial findings suggest the CuRV predicts aggression over a five month period at a level significantly better than chance.

Conclusion This initial study generated encouraging findings to support the utility and predictive accuracy of the CuRV. The CuRV would assist staff to perform assessments of risk in busy clinical settings. Future research efforts should seek to develop the psychometric properties of the CuRV.

The prevalence of aggressive behaviour among adults with an intellectual disability (ID) has been estimated in population-based samples as ranging from 2.1% to 52% (Borthwick-Duffy, 1994; Cooper et al., 2009; Crocker et al., 2006; Emerson, et al., 2001). Aggression toward others is a prevailing reason some individuals with ID are admitted to secure (forensic) services and is a salient feature in offending histories (Lindsay et al., 2012; Lunsky et al., 2011). Over time, engaging in aggressive behaviour could impact on the individual's self esteem, lead to exclusion from services and make it difficult to maintain social networks (Cooper et al., 2009). Aggressive behaviour has been shown to negatively impact on support staff well-being (Hastings, 2002; Hastings & Brown, 2002). Episodes of aggressive behaviour also elicit negative emotions in staff such as anger and fear and directly impact on the staff-client relationship (Bromley & Emerson, 1995; Mossman, Hastings, & Brown, 2002).

For the benefit of individuals with an ID themselves, for ID services, and for carers it is important to identify risks for future aggressive behaviour so that proactive management strategies can be put in place. In the absence of ID-specific risk assessment measures, clinicians typically rely on actuarial risk assessment tools that have been developed for individuals without an ID. Recent findings indicate that even with adaptations, tools developed for the general population of offenders may not provide the same level of prediction of aggressive behaviour for individuals with an ID (Verbrugge & Goodman-Delahunty, 2011).

Actuarial tools include highly structured items that capture static risk: risk based on the individual's history (e.g., previous antisocial behaviour, childhood

adjustment, lack of long-term relationships). Actuarial tools are single point assessments used to indicate risk *status*, and in this sense risk status is conceptualised as a static characteristic of the individual (Douglas & Skeem, 2005). The efficacy of static risk measures in predicting risk has more recently been compared to that of dynamic risk measures. Unlike static risk measures, an assessment of dynamic risk involves assessing factors that may change over time. This approach recognises that risk fluctuates over time due to changes in biological, psychological, or social context (Douglas & Skeem, 2005). Tools for capturing dynamic risk are generating research interest and there is clearly some significant potential impact for clinical practice that could result from this research. Dynamic risk factors can be changed through deliberate intervention thus reducing the level of risk posed by the individual (Chu et al., 2011). Furthermore, measures of dynamic risk can monitor fluctuations in risk over time which is important for informing clinical decision making, risk management, and for predicting level of risk in the short term (Douglas, Ogloff, Nicholls, & Grant, 1999).

Two dynamic risk tools have been developed for use with offenders with an ID and subjected to research evaluation. The Dynamic Risk Assessment and Management System (DRAMS; Lindsay et al., 2004) measures general dynamic risk in high secure settings (Steptoe, Lindsay, Murphy, & Young, 2008). The Assessment of Risk and Manageability for IndividualS who Offend Sexually (ARMIDILO-S; Boer, Tough, & Haaven, 2004) was designed to assess risk of sexual offending in adults with an ID. Both tools conceptualise dynamic risk variables related to contextual factors (environment and staff), and to characteristics of the individual (e.g., coping ability). Individuals with an ID are more likely to be dependent upon external support

and structures in the environment. Therefore, Boer and colleagues (2007) argue that including environmental features (e.g., new supervisory staff, environmental consistency, victim access) in an assessment of risk is of greater importance than individual characteristics. Inclusion of environmental items is argued to increase accuracy and provide useful information for risk management plans (Boer, McVilly, & Lambick, 2007). Recent research suggests that these ID-specific dynamic risk measures are effective in predicting risk of sexual reoffending (Blacker, Beech, Wilcox, & Boer, 2010; Lofthouse et al., 2013b) and violent incidents (Steptoe et al., 2008).

A notable limitation of these dynamic instruments, however, is the absence of the perspective of individuals with an ID in the identification of items that capture risk most effectively. That is, data directly drawn from offenders with an ID were not included in the development process for such tool. In addition, both the DRAMS and the ARMIDILLO are rather specific. The DRAMS is designed to assess risk in high secure settings and consequently generalisability to community settings or to low or medium secure facilities may be limited. The ARMIDILO-S focuses on sexual offences only and requires an extensive record review and interviews with the client and staff member. This process is both time and resource-intensive and is not conducive to a concise and regularly repeated assessment of risk over the short term. Like many complex instruments the ARMIDILO-S requires assessors to be trained in its use. Administration and interpretation is a lengthy process. These circumstances can limit take-up by organisations and inhibit regular use as well as reducing the reliability of the findings where they are used by untrained staff.

Within clinical practice, assessment tools that are simple and easy to use result in the most accurate assessments (Hanson, 2009). There is a pressing requirement for a brief, dynamic assessment of risk for the ID population, enabling clinicians to regularly monitor and respond to changes in dynamic risk. Such a tool would ideally be based on support staff or carer reports only (i.e., not requiring additional interviewing or file review), be user friendly so as not to require extensive training prior to use. Therefore, in this paper, we describe the development and initial testing of a new tool, the Current Risk of Violence (CuRV) that captures dynamic risk among offenders with an ID. Development of items for the CuRV was based on a wide range of sources, including interviews with offenders with an ID, interviews with allied health professionals, review of existing literature, and information from existing dynamic risk assessment scales.

Method

Participants

Participants for the initial validation study were a sample of 64 adults (45 men and 19 women) with an ID in the mild or borderline range. Full scale IQ score was not available for all individuals, but all were receiving ID services that had clear admission/eligibility criteria. All participants were receiving services from an independent specialist mental health and ID service within North Wales (n=44) or Scotland (n=20). Participants lived in group homes in either community (n=31) or hospital based settings (n=34), in conditions of medium and low security with 24 hour staff support. The sample included a mixture of individuals who were voluntary admissions (n=24), or detained under the provisions of the Mental Health (Care and Treatment) Scotland 2003 or Mental Health Act 2007 UK (n=25) and those on

probation orders (n=9) who are either voluntary, detained by MHA provision or bailed (Missing data for 6 participants). Occupational Therapy (OT) sessions were available for participants in day centres or within their group home setting.

Participants were eligible for inclusion in the present study if they had a history of aggressive or violent behaviour and had been resident in the service for a minimum three months, had a CuRV assessment on file (see Procedure), and had the capacity to give, and had given, informed consent for the researcher to access their clinical notes for the purposes of this evaluation study. The mean age of participants at the time of the CuRV assessment 42 years ($SD = 14.8$ range = 20 - 78 years). Mean length of stay was 6 years ($SD = 8.1$ range = 3 months - 35 years). In terms of recorded index offences, 35 participants had displayed physically aggressive behaviour prior to admission to the service, 18 had caused damage to property, 14 had been verbally aggressive, and 8 participants had displayed inappropriate sexual behaviour (contact and non-contact).

CuRV item selection and scale construction

A number of sources were consulted during the construction of the CuRV. Possible risk factors for aggressive or violent behaviour were obtained from the views of nursing, and allied health professionals, individuals with an ID, existing ID research literature, and established ID risk tools.

Literature review. Articles empirically associated with dynamic risk factors for aggressive behaviour were reviewed (Lindsay & Beail, 2004; Quinsey, 2004; Quinsey, Book & Skilling, 2004; Quinsey, Coleman, Jones, & Altrows, 1997; Steptoe et al., 2008). Risk factors for self harm and sexually aggressive behaviour were not included because of potentially different mechanisms underpinning the aetiology of

these types of offending behaviour. This process generated a list of nine potential dynamic risk domains.

The views of support staff. Staff working in forensic settings were recruited from an independent provider of specialist mental health and ID services in the UK. Staff were 16 health professionals (i.e., Psychologist; Clinical Nurse Specialist; Speech and Language Therapist; Psychiatrist). Members of staff took part in either a focus group or an individual interview conducted by a clinical psychologist in training. Staff were asked to identify factors they considered to be related to aggression, based on their knowledge and experience with this population (Roffey, 2011). A content analysis was conducted on these data and potential risk domains identified linked to 30 items in the final version of the CuRV.

The views of offenders with an ID. Ten men receiving care in one of two small independent hospitals within North Wales and North West England took part in one-to-one interviews (Lofthouse et al., 2013a). Individuals were asked to reflect on their recent aggressive behaviour and times when they were able to refrain from behaving aggressively. Aggressive behaviour was defined as violence toward others, abusive or threatening behaviour, and damage to property. Sexual violence and sexual aggression were not a feature of this analysis. For the purpose of the present study, data from the semi-structured interviews were analysed using an informal content analysis which identified potential dynamic risk domains linked to 29 items in the final version of the CuRV.

Secondary analysis of previous data. Existing information on dynamic risk from 212 male adults with an ID (or low IQ) and offending behaviour was also scrutinised to identify items that achieve the best prediction of aggressive

behaviours. Aggressive incidents were recorded over a one year period and were defined as verbal aggression, physical aggression, and destruction of property (Lindsay et al., 2008). All male adults were residents in one of three specialist forensic services: high secure, medium/low secure, and a community service (for further details see Hogue et al., 2007; Lindsay et al., 2008). Receiver Operating Characteristic (ROC) Area Under the Curve (AUC) analysis was conducted on individual items in the Emotional Problem Scales - Behaviour Rating Scale (EPS-BRS; Prout & Strohmer, 1991) and the Short Dynamic Risk Scale (SDRS; Quinsey, 2004). This analysis identified 15 variables that accurately predict aggressive behaviour in this sample.

Scale construction

Given that some of the risk domains overlapped, a list of 30 risk domains resulted from the four steps of the process outlined above. Following this, three multidisciplinary workshops were held with over 30 staff from the independent service provider in North Wales and North England. Staff were asked to draw on their experience and knowledge of working with offenders with an ID to comment on the core domains, supplement additional areas for consideration, and to assist in generating descriptions of risk items to capture the different domains.

Following feedback and consensus on item inclusion, 33 items were generated and pooled to construct the first version of the Current Risk of Violence (CuRV) tool. The tool was subsequently piloted with 20 members of nursing staff and support workers (non qualified nursing staff). Ten of the staff members were employed by the independent service provider in North Wales but had not participated in the focus groups or interviews previously mentioned. The remaining

ten were employed by an intellectual disability National Health Service Trust in the North West of England. Staff were asked for feedback regarding the suitability of the items, their comprehensibility, and inclusiveness. Three amendments were suggested: (a) the inclusion of an item concerning physical health problems, (b) a space for additional comments, and (c) simplified language for several items.

Finally, the co-authors of this study who have considerable research and clinical experience in the field of ID reviewed all of the information gathered and the draft items with a focus on face validity. The resulting CuRV tool included 34 items and took on average 10 minutes to complete. No prior training is needed to administer the CuRV. A one page introduction details the instructions for undertaking an assessment (see Appendix L). The only requisite is staff members have three months direct experience of the individual being evaluated and experience of working with individuals with mild-borderline ID generally. The rater is asked to consider whether each of the statements describes the individual's behaviour in the previous month and responds "Yes", or "No." The total score (total possible = 34 Yes responses) was used to assess predictive accuracy in the current study.

Procedure

In the absence of an ID specific risk assessment, senior clinical and management teams within the two participating services were interested in clinically evaluating the CuRV. The study received full ethical and governance approval from Bangor University Ethics and Research Governance Committee, and locally from the senior management team of the independent service provider. Eligible participants were identified by the clinical lead and senior clinical psychologist at both services. Informed consent was sought directly from the participant to access data from their

clinical files for research purposes. A total of 76 potential participants were approached to take part in the study. Of those, 64 agreed and were assessed as having capacity to consent to research, four people were assessed as not having capacity to consent, six declined to take part and two people withdrew their consent. Information was extracted for research participants, with permission, from the clients' notes by the first author. The following sociodemographic information was also extracted for each individual: gender, date of birth, MHA status, length of stay and index offence.

The outcome variable, aggression, was defined as acts of physical violence, aggression, or force to hurt, or damage to someone or something. Aggression could have been directed at staff, peers, or the environment. Verbal abuse was also coded as violent if the content was aggressive or threatening and was aimed at a specific individual or individuals and would be perceived as causing offence because of its content and/or severity/intensity.

The occurrence of aggressive behaviour was recorded prospectively for five months after administration of the CuRV. Data relating to aggressive incidents is routinely collected by both services using a standard incident recording system. Within 24 hours of an incident occurring, a member of staff who witnessed the event completes an incident form, following standard guidance. Each incident that met the criteria for any of three categories of behaviour (physical assault to property, physical assault to others, and verbal aggression) was coded as (aggression) present for that individual. If no incidents were recorded for an individual, the code was aggression absent for that month period. Outcome data were collected by researchers independently of the administration of the CuRV or completion of incident forms by

staff. Two researchers coded the outcome (aggression present or absent) data from the incident forms spanning five months following the completion of the CuRV. Inter-rater agreement was calculated on the coding of aggressive incidents for 28 sets of data (44% of all outcome data). Inter-rater agreement was found to be good (Cohen's Kappa = .73).

Results

Descriptive analysis

The mean of scores on the CuRV (from 34) for the entire sample ($N = 64$) was 10.5 ($SD = 7.8$). For male participants ($n = 45$) the mean score on the CuRV was 9.9 ($SD = 1.1$); for females ($n = 19$) the mean score was 11.7 ($SD = 1.9$). In terms of different age groups within the sample, the mean scores were as follows: those aged 20 to 39 years ($M = 11.3$, $SD = 1.6$); 40 to 59 years ($M = 11.2$, $SD = 1.8$), and 60 to 78 years ($M = 7.1$, $SD = 3.2$).

Internal consistency (Kuder Richardson coefficient) for the total score in the current study was high (.91).

Predictive validity

A total of 31 participants were aggressive at least once in the five months following assessment using the CuRV. Nineteen males were aggressive and 12 females were aggressive on at least one occasion. Predictive accuracy of the CuRV was quantified using the Area Under the Curve (AUC) in a Receiver Operating Characteristic (ROC) curve analyses. AUCs are a commonly used method of predicting the validity of risk assessments (see Gray, Fitzgerald, Taylor, MacCulloch,

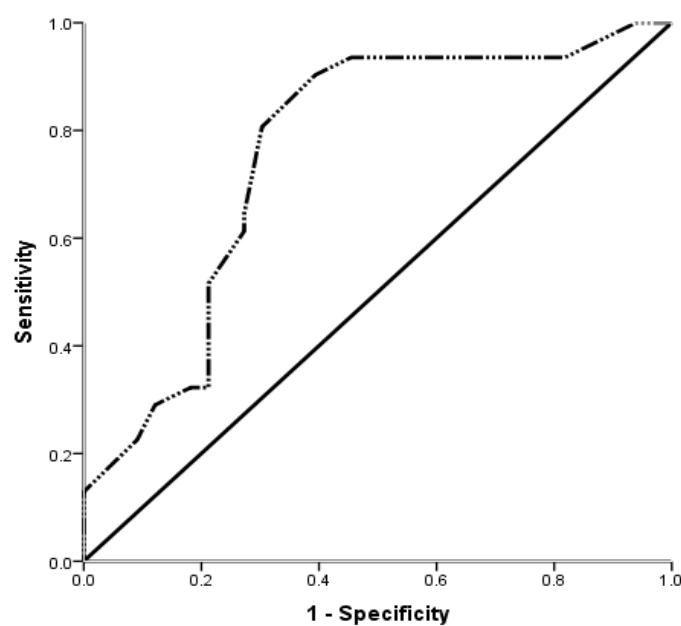
& Snowden, 2007; Lindsay et al., 2008). All analyses were conducted in SPSS 20[®] (IBM SPSS).

ROC – curves and AUC were calculated using the CuRV total score (see Table 5.1). Five AUCs were used to investigate the relationship of the CuRV with aggressive and non aggressive behaviour for each of the five months in the follow up period. For example, the analysis for month three focused on whether or not participants had an aggressive incident in month three and not whether there had been an aggressive incident up to and including month three. A final AUC analysis investigated the relationship of the CuRV with aggressive and non aggressive behaviour at any time over the five month period (See Figure 5.1). Overall, the CuRV produced adequate AUCs ranging from .72 (95% CI: 59-85) to .77 (95% CI: 66-89) for all five months in the follow up period and the cumulative analysis over the five month period. The findings suggest that the CuRV resulted in a prediction of future aggression at a level significantly better than chance. The highest predictive accuracy was found at three months AUC .77 (95% CI: 66-89).

Table 5.1 ROC analysis of the CuRV over a five month follow -up

<i>Follow up month</i>	<i>Area Under Curve</i>	<i>95 % Confidence Interval</i>	<i>Total number of participants who are aggressive within the month</i>
One	.72	.59 - .85	25
Two	.72	.60 - .85	20
Three	.77	.66 - .89	18
Four	.74	.62 - .86	20
Five	.70	.56 - .85	15
Cumulative (all 5 months)	.76	.64 - .88	31

Figure 5.1 Receiver Operating Characteristic (ROC) Curve: Original CuRV (34 item) for aggression at anytime over a 5 month period



Item level analysis

ROC analyses were performed on each of the 34 dynamic risk items in the CuRV to establish which items demonstrated better predictive accuracy and whether any items performed poorly. For the prediction of aggression over five cumulative months, 12 items had an AUC of .56 or below which correspond to the small effect size (.2) convention of Cohen's *d* (Rice & Harris, 2005). The 12 items were: withdrawal, signs of dependence, self esteem, pro offending attitude, substance abuse problems, staff knowledge of the individual, change in intimate relationships, family problems, lifestyle regulation/engaging in meaningful activity, the physical environment, restrictions in the environment, and significant future events.

These items were removed from the CuRV and the predictive accuracy of the reformulated 21 item CuRV was assessed (see Table 5.2). The subsequent ROC analyses followed the same process as the initial analyses described above; investigating the relationship between the reformulated CuRV total score and aggressive and non aggressive behaviour in each of the five months and at any time over the five month period. As expected, the results followed the same pattern as the initial analyses but with increased accuracy. The highest predictive accuracy was also found at three months AUC.82 (95% CI: .71-.92).

Table 5.2 ROC analysis of the reformulated CuRV over a five month follow-up

<i>Follow up month</i>	<i>Area Under Curve</i>	<i>95 % Confidence Interval</i>	<i>Total number of participants who are aggressive within the month</i>
One	.75	.63 - .87	25
Two	.76	.64 - .89	20
Three	.82	.71 - .92	18
Four	.77	.65 - .88	20
Five	.73	.59 - .88	15
Cumulative (all 5 months)	.79	.61 - .91	31

Discussion

The aim of the study was to outline the early stages in the development of a dynamic risk tool for the ID population and to examine the ability to predict risk of aggression over a five month period. The study findings in relation to risk prediction are broadly consistent with previous research. It is possible to predict, with a reasonable degree of accuracy, aggressive behaviour at a level significantly better than chance when using the CuRV, an ID specific dynamic assessment of risk for aggression. In the present study, the CuRV predicted best at three months post-completion. However, there was little variation in the AUCs for different months and there is still an open question about over what time period this dynamic tool will perform best. Although the AUC's in the present study were not as high as those cited in previous research using dynamic tools (Blacker et al., 2010; Lindsay et al.,

2008; Lofthouse et al., 2013b), this may be due to the tool being at an early stage of development.

In the current study, individual item analyses revealed that 12 of the 34 original CuRV items predicted risk of aggression at chance level or below. Given that research in the ID field is just beginning to understand the dynamic variables that predict reoffending, we can only speculate on explanations for this finding. It could be on the one hand that the scores are inconsistent on the CuRV suggesting the 12 items are not relevant to participants in this sample. Alternatively, participants may be scoring similarly on these items because the items are relevant for all participants. Consequently, the CuRV may have failed to differentiate between those who were and were not subsequently aggressive. The latter situation may be feasible given that all the participants in the current study are a high risk population for violence. Further empirical investigation of the CuRV with a community sample of offenders with an ID would inform our understanding of relevant risk factors.

A possible explanation for the poor performance of substance abuse as a risk factor may be more easily explained. Given that both participating services prohibit individuals from accessing alcohol and drugs, this risk factor might be irrelevant to the sample in this study. Interestingly, for this study sample, withdrawal and meaningful activity were also not found not to be predictive of aggression, contrary to previous studies (Lindsay et al., 2008) and interviews with health care workers and offenders with an ID (Roffey, 2011; Lofthouse et al., 2013a). Both items may also be explained in relation to the context of this study. The residential group home environment, with restricted access to personal space, restrictions on movement, and proximity to others may limit the opportunity for individuals to withdraw. All

participants in the current study had organised daytime activities which may explain the lack of predictive accuracy of this item. Meaningful activity as a risk factor may be more pertinent for individual offenders in the community where daytime activities are optional.

A particular strength of this study is the multitude of sources consulted to generate items associated with risk of aggression in this population. In particular, this is the first tool in the field to include the views of individuals with an ID in the development process, which the current authors view as essential to ensure exploration of a comprehensive range of risk factors. Content validity of the measure was enhanced through successive rounds of consultation with multidisciplinary staff teams for generating and reviewing item inclusion (Terwee et al., 2007). Face validity of the CuRV was strengthened by piloting the measure with support staff familiar with the challenges of assessing risk in clinical practice. Furthermore, a number of staff teams commented on the terminology and content of the CuRV ensuring it was appropriate for all levels of staff to administer.

There are several merits of the CuRV as an approach to assessing risk of aggression in offenders with an ID. In the current study, the CuRV was successfully completed by a wide range of staff including health professionals and untrained support staff (e.g., health care assistants and support workers) following minimal training. This demonstrates that the CuRV is easy to use and accessible to all support staff and administration would not be burdensome in terms of time or effort.

The present study has generated some encouraging findings to support the predictive accuracy of the CuRV, AUC=.77 (95% CI: 0.66-0.89). The predictive accuracy coupled with the ease of use and brevity of the CuRV, suggests that the

tool would assist support staff and clinicians to perform risk assessments in busy clinical settings and is a worthwhile endeavour for future research.

As this is the first study investigating the psychometric properties of the CuRV, future research efforts should seek to (a) cross validate the CuRV on a different sample of individuals with an ID and history of aggression to increase the generaliseability of the current findings, (b) measure inter-rater agreement on CuRV assessment ratings (d) assess the concurrent validity of the CuRV with respect to other assessments of risk for aggression and (e) conduct a more in depth analysis of predictive validity. When the psychometric properties of the CuRV are improved, it would be beneficial to conduct a ROC analysis to establish potential cutting points for classifying of high risk offenders. Clinically, this could be used to guide decisions regarding for who and when interventions are necessary to reduce the risk of aggression. Finally, it would be informative to assess the relationship of changes on the dynamic items in the CuRV to reductions in aggressive behaviour (Olver, Wong, Nicholaichuk, & Gordon, 2007) to allow the dynamic potential of the CuRV to be determined.

Limitations

Much of the data collection in this study relies on the quality of the case notes and the accuracy of information contained within them. In the current study, in general the case notes were extensive, and any uncertainty was clarified with the service managers. However, caution must be raised given there may be biases in the staff recording the information in the notes.

The current study used a convenience sample of adults with a mild ID and therefore does not include the whole spectrum of ID or the entire population of the

two participating forensic services. Refusal to participate and lack of capacity to consent hindered recruitment to the study and may limit the generaliseability of the results.

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Chapter 6 – Discussion

Individuals with an ID who have offended or engaged in offending type behaviours are a marginalised and vulnerable group. Offending behaviour by individuals with an ID has serious negative consequences for the adult, their family, carers, and wider society. Predicting who will offend or reoffend is a key issue in the criminology literature that has until recently been overlooked in the ID population. This thesis has begun to extend the evidence base for risk assessment and prediction and initiate theory directed research in this population.

First, a brief introduction to key areas of relevance to the thesis (Chapter 1) outlined current research and practice regarding risk assessment and prediction in the ID field and identified significant limitations in the evidence base. The current paucity of research in this area restricts our knowledge of risk factors associated with violent behaviour in the population of people with an ID. As a result, there are very few risk assessments developed for offenders with an ID. The overwhelming majority of tools in use are designed for and validated on mainstream offenders. Empirical evidence to support the assumption that these tools are equally applicable to offenders with an ID is inconsistent. At present, support staff who are responsible for assessing and managing the ongoing risk of offenders with an ID have the option of developing their own processes or tools or relying on tools not validated for this population (Lindsay & Beail, 2004). Neither of these options is optimal and the situation may lead to a poor risk assessment being conducted, which is arguably worse than no risk assessment (Chaplin et al., 2009). Chapter 1 of this thesis details these significant methodological and conceptual problems faced by clinicians when assessing risk, providing substantial evidence to warrant the expansion of investigations in risk assessment and prediction in this area.

In the current chapter, I will summarise and discuss the findings from the four empirical studies (Chapters 2, 3, 4 and 5), consider them in light of previous research and other issues introduced in Chapter 1, and discuss the implications this body of work carries for theory, clinical practice and research in forensic ID. This chapter will also suggest ways in which the findings may instigate change in the way risk is assessed and prompt further research in this area.

The first empirical study (Chapter 2) adds to the limited evidence base on the predictive accuracy of a dynamic ID specific risk assessment tool (ARMIDILO-S). Chapter 2 aimed to address the methodological problems associated with the only other study published using this tool (Blacker, Beech, Wilcox, & Boer, 2010) by including a larger sample size and evaluating the ARMIDILO-S in its entirety rather than focusing on only two subsections. In line with Blacker et al. (2010) study, the ARMIDILO-S was a more effective tool for predicting sexual reoffending than static risk tools commonly used in research and clinical practice (e.g., STATIC-99). Findings from these studies (Blacker et al., 2010; Lofthouse et al., 2013) would suggest that dynamic risk factors have utility in assessing and predicting risk for sexual violence in this population. Moreover, there appears to be merit in clinicians and researchers developing risk assessment tools specifically to assess sexual reoffending in offenders with an ID rather than relying on tools designed for non-ID populations.

The research in Chapter 3 adds to the literature, as it is the first study to address the theoretical conceptualisation of risk, which is currently lacking in the ID literature. In line with the general criminological literature, static and dynamic risk factors are often treated as two distinct types of risk and are assessed separately

and compared for predictive accuracy. The purpose of Chapter 3 was to explore how risk factors work together to predict violence using data collected on offenders with an ID. Application of the novel methodological approach indicated that dynamic risk factors act as proxy for static risk factors in this study. This finding suggests that the two approaches are measuring the same underlying risk, consistent with Beech and Ward's (2004) integrated model of risk factors. Important conceptual and methodological issues emanate from this study that could inform the way risk is assessed among offenders with and without an ID as discussed later in this chapter.

The qualitative study in Chapter 4 is the first of its kind to explicitly investigate the perspective of individuals with ID regarding their own offending behaviour. The study identified risk factors that individuals with an ID perceived to be associated with their aggressive behaviour and factors that prevent their behaviour escalating into aggression. Participants spoke of physical and social features in the environment such as the behaviour of peers and staff, and the secure nature of the service as increasing the likelihood of aggression occurring. Self-control and recognising the negative consequences of engaging in aggressive behaviour were found to be important strategies for managing participants' own behaviour. The findings in this Chapter highlight a number of potentially important dynamic risk factors for consideration when assessing risk for aggression in this population. Unlike much policy development, decision making and research that takes place among vulnerable populations, this study actively included the voices of offenders with an ID in research that has the potential to directly impact on services that support them.

The final empirical study (Chapter 5) describes the development of the first structured tool that captures dynamic risk for aggression among offenders with an ID: The Current Risk of Violence (CuRV). The developmental process for the CuRV was extensive and involved multiple sources for informing item selection and tool construction. In particular, this was the first risk assessment tool in the field where the views of individuals with an ID were included in the scale construction process (using the data reported in Chapter 4). Initial findings indicate that the CuRV shows promise as a tool for predicting aggression in the short term and is brief and straightforward to administer. The data reported in Chapter 5 provided preliminary empirical evidence to support for use of the CuRV as a risk assessment and prediction tool. Early positive findings suggest that further study is warranted to develop the psychometric properties of the CuRV.

Theoretical implications

To date, there is no consistent theoretical basis from which risk factors for offenders with an ID have been investigated. The findings from Chapter 3 of this thesis suggest that existing conceptual models of offending used in the wider general offender literature may not be useful for explaining how risk factors operate in relation to aggression among offenders with an ID. For example, one approach commonly used is the risk/need/responsivity model (RNR; Andrews & Bonta, 2003). This model proposes that static and dynamic risk factors are conceptually distinct and as a result will only have independent main effects in relation to violence. Consequently, research has tended to focus on comparisons of the predictive accuracy of the two approaches whilst neglecting to explore the relationship between them. Although this may be a useful approach for determining which instruments

produce the highest rates of predicative accuracy, it is not helpful for increasing knowledge of the mechanisms that underpin aggression. Moreover, the RNR model is inconsistent with the notion that the onset of any complex outcome, be it a health disorder such as cancer, or a behaviour such as violence, is likely to be explained by multiple risk factors ‘working together’ to influence the onset of an outcome rather than being the result of a single risk factor (Kraemer, 2010). This information is vital for professionals as well as the individuals involved in the care of offenders with an ID (Cooper et al., 2009).

Applying the conceptual and methodological framework developed by Kraemer and colleagues (2001) allowed us to directly examine risk inter-relationships for the first time among offenders with an ID. Understanding how risk factors work together is vital to attempts to predict and prevent risk (Kraemer, 2010). The presence of a proxy relationship between static and dynamic risk factors found in Chapter 3 suggests that although the two clinical domains use different approaches to assessing risk, they appear to be capturing the same underlying risk. The findings are consistent with Beech and Ward’s (2004) integrated model of risk factors developed in the general sexual offender literature, which proposes that historical and dynamic risk factors are essentially two different methods of measuring the same psychological dispositions.

The current findings offer empirical support for combining static and dynamic approaches (Beech & Ward, 2004) when assessing risk to focus on the offenders’ current psychological dispositions. Conceptualising and assessing risk in this manner would not result in the loss of any information, but would render the term “static” superfluous. A potentially useful way to operationalise this approach is the

concept of “psychologically meaningful” risk factors or “propensities” (Mann, Hanson, & Thornton, 2010). This may be pertinent given that “static” and “dynamic” risk factors are essentially measuring the same underlying dispositions.

Within the ID risk assessment literature, recent attention has been directed at understanding environmental explanations for aggressive behaviour alongside person-centred factors. Boer, McVilly, and Lambick (2007) argue that offenders with an ID are more dependent upon features within the physical environment, such as staff, which necessitates the consideration of such factors in assessments of risk. Empirical evidence from the studies within this thesis supports the salience of the environmental context. However, the findings suggest that increased relevance is not necessarily due to greater dependence on the part of the individual, particularly those in the mild to borderline range included in this thesis. Rather, it is the nature of forensic services for offenders with an ID that creates dependency. Institutional settings are unique environments (Gadon, Johnstone, & Cooke, 2006) that are likely to directly impact upon dynamic risk and management thereof. For example, participants in Chapter 4 of this thesis referred to restrictive conditions, population density, proximity to others, negative interactions with staff and peers as significantly contributing to their aggressive behaviour. Furthermore, the findings in Chapter 2 of this thesis demonstrate that environmental risk factors within the ARMIDILO-S are important predictors of sexual violence in this population.

The findings from the literature review and the empirical studies demonstrate that environmental risk factors play an important role in assessing and predicting violence among offenders with an ID (Boer et al., 2007). Conceptualisation of risk or attempts to develop a risk paradigm in this field should take account of the

relationship between risk factors and the role of environmental risk factors alongside those relating to the individual. This is important to be able to understand the complex process underlying risk and to provide additional means for managing and reducing violence (Gadon et al., 2006).

Clinical implications

This thesis has significant implications regarding the use of risk assessment tools in forensic ID services. On the whole, the findings contribute to a greater understanding of static and dynamic risk factors among offenders with an ID. Increasing the evidence base in this area supports clinicians in making informed choices regarding appropriate violence risk assessment tools with this population. Furthermore, the findings demonstrate the value of dynamic risk factors and their importance in predicting violence in this client group. The identification of dynamic risk factors provides a useful framework for informing risk management and identifying treatment targets. Finally, this thesis, through the initial development of the CuRV, explicitly addresses the paucity of risk assessment tools to assist clinical and community teams to manage individual risk of aggression (Lindsay & Beail, 2004).

As discussed throughout this thesis, dynamic tools have greater clinical utility and address some of the shortcomings of a static approach to risk. For example, predictions of risk using static tools are relatively enduring and can therefore be potentially misleading. An individual classified as a high risk by a static measure in young adulthood and at the peak of his or her offending career, may still be classified high risk in older age despite having successfully benefited from treatment for his or

her offending behaviour. Such individuals may have unnecessary restrictions placed on their liberty as a result of a risk assessment of risk using only static tools. In contrast, the changeable nature of dynamic factors in the short and medium term would permit their ongoing and frequent assessment resulting in a more accurate and meaningful representation of risk presented by the individual.

Consistent with previous research (Blacker et al., 2010; Lindsey et al., 2008; Steptoe et al., 2008) the results in Chapter 2 of this thesis demonstrate that ID specific dynamic tools predict violence among this population with greater accuracy than mainstream static risk tools. In contrast to the inconsistent performance of static risk tools with this population, dynamic tools appear to perform consistently well. These findings reflect recent trends in the mainstream literature and suggest that although progress on static risk prediction of reoffending is more advanced than dynamic prediction, dynamic tools are shown to be significant and valid predictors of violence that are worthy of further investigation.

In addition to predicting violence, the goal of risk assessment should be to prevent and reduce such violence (Wong & Gordon, 2006). This thesis broached these topics in Chapter 4 from the perspective of individuals with an ID. Participants were asked to comment upon strategies they use to prevent their own aggressive behaviour and reflect on factors influencing their settled behaviour. Thematic analysis identified several self-management techniques and resources including seeking staff help, removing oneself from provocation and controlling ones behaviour through techniques learnt via psychological therapy. Participant's responses demonstrated the ability to regulate impulses to achieve both short and long-term goals. For example, participants showed awareness that engaging in aggressive

behaviour resulted in the loss of immediate privileges or prolonged detention. This awareness appeared to motivate individuals to refrain from being aggressive highlighting their potential value as protective risk factors. Whereas deficits in ability to self manage may indicate an increase in potential risk, having goals appear to be important factors in reducing risk. Future research should explicitly investigate factors impacting on the ability of offenders with an ID to control their aggressive impulses.

Assessing risk using a dynamic approach has a number of other potential benefits for managing offenders with an ID and attempting to reduce risk of violence in clinical practice. Unlike static assessments that are dependent upon the quality of historical case notes, dynamic measures are relatively straightforward to complete and rely exclusively on current knowledge and familiarity of the individual. Dynamic assessments of risk capture clinically relevant and useful information that allows support staff to intervene promptly and thus reduce the likelihood of violence occurring.

Within the mainstream literature, Andrews and Bonta (2006) suggest that dynamic variables should be the focus of correctional programming and thus refer to them as “criminogenic needs”. The ability to change makes dynamic risk factors suitable targets for intervention and allows clinicians to monitor the effects of treatment. Based on evidence for the validity and reliability of dynamic risk tools found in this thesis, there is merit in clinicians utilising dynamic risk factors to determine the most profitable treatment and supervision targets. Focusing treatment attention on dynamic risk factors may help to improve or ameliorate risk factors and

subsequently impact on whether or not the individual reoffends (Harris & Hanson, 2010).

Value of the CuRV

The strengths of the research in this thesis lie in the unique contribution to risk assessment research, in part due to the methodological approaches taken and the construction of a new dynamic risk assessment. The CuRV represents a significant step toward an accurate and efficient assessment of risk with this group. Chapter 5 of this thesis represents the first study, of which the author is aware, to explicitly investigate dynamic risk variables linked to aggression among offenders with an ID. The rigorous item selection process produced a comprehensive pool of risk factors that are specific to offenders with an ID. The findings enhance the emerging dynamic risk literature and contribute to a more detailed understanding of which risk factors are important in predicting aggression in this group of people.

In terms of the day-to-day management of offenders with an ID, the CuRV could in future form part of a systematic process of managing and ultimately reducing risk. The CuRV has a number of strengths that enable it be incorporated into regular clinical practice with minimal burden and effort. Unlike static risk assessments that require extensive and time consuming file review, the CuRV relies on current knowledge of the individual. Thus, the time required to administer the assessment is minimal (as short as 10 minutes) and expensive training which is commonly required prior to the use of many risk assessments such as the HCR-20 (Webster, Douglas, Eaves, & Hart, 1997) is unnecessary. Also in contrast to many other risk assessments, the CuRV is readily available and can be used by front line

support staff that have more frequent contact with offenders in forensic services in addition to trained clinicians and health professionals. On a practical level risk assessments that are less complex and taxing for the evaluator are more likely to be completed conscientiously and result in accurate assessments (Hanson, 2009).

Initial results from Chapter 5 of this thesis would suggest that the CuRV is a reliable tool for assessing risk of aggression in group home based residential settings. Coupled with the ability to predict aggression at a level better than chance suggests the tool is worthy of further development. If, in future research, attention is paid to developing the psychometric properties of the tool, the CuRV has implications for clinical settings. As a valid and reliable measure of risk, the CuRV could be used to inform treatment planning and delivery and could be used as a pre and post intervention measure to evaluate changes in dynamic risk.

Future research investigating the psychometric properties of the CuRV should seek evidence for the concurrent validity of the tool with respect to established scales of similar and overlapping constructs (e.g., aggression, challenging behaviour). Cross validation of the CuRV on a sample of individuals with an ID already identified as having the potential for aggression would increase the generaliseability of the existing findings. Another possible expansion of the work in this thesis is to investigate the use of the CuRV as a risk management intervention. It may be useful to conduct a cluster randomised control trial of multi disciplinary team (MDT) management of individuals at risk of aggression using the CuRV compared to risk management as usual. This approach may offer insight into whether regular use of the CuRV impacts on the nature of how the MDT manage the

individual's risk and the best way to use data from the CuRV to inform management decisions.

Methodological limitations

The findings from this thesis have significant implications for research and clinical practice with offenders with an ID but certain limitations exist within the work. The first limitation relates to the small sample size in Chapters 2 and 5 (N = 65 and N = 64 respectively). Offenders with an ID are a minority group in society, much less than 2% of the population in the UK, which has obvious implications for recruiting participants to research. Thus, while the sample sizes in the two studies might be considered small within the general offender literature, the samples are relatively large compared to previous ID literature (e.g., Blacker et al. 2010; N=10). The sample size is considered sufficient for the purpose of the studies in this thesis, which was to establish preliminary evidence for the validity of the ARMIDILO-S and the CuRV as overall assessments of risk.

Another sampling issue inherent in this thesis is that participants were a convenience sample that does not include the whole spectrum of intellectual disability or is representative of the UK forensic ID population as a whole. Therefore it is difficult to generalise the findings beyond forensic residential group homes. Furthermore, current clinical practice and research relating to risk assessment in this population is not systematic or consistent within services which impacts on the availability of data for research evaluation. Incompatible use of risk assessments across the participating services also meant the concurrent validity of the CuRV could not be determined in this thesis.

Future research developments

Exploring how risk factors work together in Chapter 3 helped to clarify the relationship between static and dynamic risk factors and may inspire further research to test the conceptual model with other groups of offenders with and without an ID. A possible expansion of the work is to replicate the study using data from Chapter 2 of this thesis. Exploring the relationship between the ARMIDILO-S dynamic tool and the STATIC-99 static tool with a population of sexual offenders would provide insight into whether the proxy relationship is replicated using different risk factors and a different offending outcome. If the findings of Chapter 3 of this thesis are replicated in future studies, it may instigate change in the way risk is assessed in the future highlighting the need to develop risk assessments emphasising dynamic risk factors. An initiative to focus on dynamic or psychologically meaningful risk factors will have benefits as noted above.

In terms of the CuRV, although 12 of the 34 items pooled were poor predictors of aggression with this sample of offenders, it is probably a result of testing the tool with a population already at high risk for aggression. Indeed, a prior history of aggression was an essential criterion for inclusion in the study. It is likely therefore, that participant's scores were similar on some items and the analysis was unable to differentiate between those who were and those who were not subsequently aggressive. Alternatively, some items may be genuinely poor at predicting aggression in this sample. This highlights the need to undertake further research exploring the performance of the CuRV with similar groups of offenders with ID to establish which items are of greater and lesser importance in predicting aggression. In addition, it would be useful to evaluate the efficacy of the CuRV with

samples of offenders in different community or prison settings. If there is inconsistency in the relevance of items across settings, it could be possible that slightly different versions of the CuRV are necessary for different settings.

Research to further develop the CuRV requires the use of a large sample for validation. With further development and improvement to the psychometric properties of the tool, it has the potential to be used not only to predict future aggression in residential group homes but also to complement treatment of aggression and assess treatment change.

In addition to the methodological points raised in the current thesis, there are broader issues to consider which could expand the research on risk factors for violence among offenders with an ID. Identification of the most relevant dynamic risk factors associated with reoffending is the primary stage of research in this population. In order to advance knowledge and to understand the dynamic nature of this approach, once the strongest dynamic risk factors have been established, research should explore the nature of how dynamic variables change (Lavoie, Guy, & Douglas, 2009). Research conducted among ID and non-ID populations have typically assessed dynamic risk factors at only one time point (Olver, Wong, Nicholaichuk, & Gordon, 2007) and thus risk factors have not been demonstrated to change. To be considered dynamic in nature, changes in risk factors must be measured at two time points and linked to changes in violent outcome (Kraemer et al., 1997). To evaluate whether the dynamic items of tools such as the ARMIDILO-S and CuRV are indeed dynamic, research must examine the relationship of changes in these measures to changes in violence using a longitudinal approach.

Conclusions

In conclusion, the present thesis demonstrates that dynamic risk factors are an effective and important resource for assessing risk of violence among offenders with an ID in forensic services. Findings from this thesis are of considerable importance given the significant human and monetary costs associated with the occurrence of violence within forensic services. Increased knowledge of the type of risk factors that are suitable and a conceptual understanding of their relationship can inform the future development of accurate and efficient risk assessment tools such as the CuRV. This thesis has contributed to the improved assessment and management of offenders with an ID and highlighted suitable directions for future research. Improved risk assessment practice in this population will lead to a reduction in violence within forensic services, better outcomes for the individual and enhanced safety for peers and staff.

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Appendices

Appendix A
Risk Assessment

What is the Risk & to whom	Level of risk	Precautionary Measures
Lone Worker (researcher)	Low	<p>There will always be at member of staff present in the room, or sat just outside the room during interviews to minimise risk. They will be a member of direct care staff or a clinical nurse specialist who knows the individual well.</p> <p>The researcher will sign in /out of MHC buildings/sites.</p> <p>The MHC contact person will be aware of researchers' whereabouts whilst on site.</p> <p>Only day-time visits will be conducted.</p>
Travelling to & from site due to remoteness of sites (researcher)	Low	<p>Whenever possible, research workers will travel by car.</p> <p>The research workers will have a map/sat-nav and a mobile phone.</p>
Aggression from client (researcher)	Low	<p>The researcher will end the interview immediately but sensitively if there is a perceived risk of violence.</p> <p>The researcher has attended the company's staff induction programme and is trained in CPI techniques.</p> <p>Risk assessments are conducted on all clients on a yearly basis (see Appendix 2) and this information is available within clients' files. The researcher will familiarise herself with the salient risk issues in these assessments prior to the interview.</p> <p>The researcher will talk to support staff before having client contact to establish if there has been any recent unsettled behaviour or concerns. The</p>

		<p>researcher will always carry a personal alarm where available.</p> <p>The researcher will be vigilant of non-verbal signs of distress and will always keep the exits from rooms clear – sitting between the client and the door.</p>
Fire safety (researcher)	Low	On entering premises, researchers will make themselves familiar with fire exits and escape routes
Allegations against researchers (researchers)	Low	<p>Researchers will always be accompanied by members of staff.</p> <p>Details of visits will be made in clients notes, including date, time, purpose of visit & name of accompanying staff member. The researcher will report any incidence/causes for concern to a senior member of staff immediately.</p>
Distress (client)	Low	<p>The researcher will be vigilant for any signs of distress.</p> <p>The client will be reminded that they can end the interview or take a break at any time. The researcher will provide support by encouraging and listening to the client.</p> <p>The researcher will report any incidences of distress to a member of the clinical team.</p> <p>If the individual remains distressed the researcher will inform them that they can talk to an identified member of staff to provide on-going support.</p>
Distress (researcher)	Low	Distress is not anticipated given that the research worker has ten years experience working with individuals with learning disabilities and behaviours that challenge services. If the research worker does become distressed she will discuss the situation with her research supervisor.

Appendix B

Staff Information Sheet – English and Welsh Versions



Would you like to take part in a research study?

What is Research?

Research is a way of finding out the answers to questions.

There are different types of research.

People who live in places like MHC sometimes have bad days and may struggle to cope. They may get upset or angry and they feel like shouting or hitting out. Other people have been doing well for a long time.

Rachael is a researcher from Bangor University. She would like to talk to you about these things. You do not need to tell her about your offence. She will only be asking about a recent time you had a bad day or a time when you have been doing well. She would like to try and understand what is happening for people at times like this. Hopefully, this would mean that in the future we can help people before they end up having a bad day.

If you think you would like to be involved, Rachael and someone from the psychology team will come to tell you a bit more about the study. They will answer any questions you have.



Ydych chi eisiau cymryd rhan mewn ymchwil?

Beth yw ymchwil?

Mae ymchwil yn ffordd o ddarganfod atebion i gwestiynau.

Mae yna fathau gwahanol o ymchwil.

Mae pobl sydd yn byw mewn llefydd fel MHC weithiau yn cael diwrnodau gwael ac efallai yn brwydro i ymdopi. Gallant gael ei chynhyrfu neu efallai teimlo fel gweiddi neu daro rhywun. Tra bod pobl eraill yn gwneud yn dda.

Ymchwilydd o Brifysgol Bangor yw Rachael. Mae hi eisiau siarad gyda chi ynglŷn â'r pethau yma. Ni does angen i chi sôn am eich trosedd. Bydd Rachael yn eich holi am adeg ddiweddar pan gaffoch chi ddiwrnod gwael neu am adeg pan nad oeddech yn neud mor dda. Mae hi am geisio deall beth sydd yn digwydd i bobl ar adegau fel hyn. Yn y dyfodol byddwn yn gobeithio y byddwn yn gallu helpu pobl fel chi cyn iddynt gael diwrnod gwael.

Os ydych eisiau cymryd rhan bydd Rachael ag aelod o'r dim Seicoleg yn dod i roi mwy o wybodaeth am yr ymchwil i chi. Byddant hefyd yn gallu ateb unrhyw gwestiynau sydd gennych chi.

Appendix C

Participant Information Sheets English & Welsh Versions



Participant ID number.....

Risk Markers for Offending Behaviour in Adults with Intellectual Disabilities.

My name is Rachael Lofthouse, I am a student at Bangor University.

This sheet will tell you about the research I am doing and why you might like to take part.

What is research?



Research is finding out about things in an organised way.

My research is looking at what happens for people when they have a bad day and struggle to cope. I am working on this research with Debs, Jonathon and Ellie from the psychology team and Richard Hastings from Bangor University.

What is the research about?

- To ask about the things you might feel, think and do when you have a bad day or a time when you have been coping well

Why have I been asked to take part?

Because you:

- Sometimes have difficulties learning new things and how to solve problems
- Have had a bad day where you found it difficult to cope or a time when you were coping well

What do I have to do?



- I'll ask you to sign and date a consent form. This just means you say it is ok for me to come back tomorrow and ask you some questions.
- If you say it is ok, I will look at your records to see when you recently had a bad day or when you were doing well. I will also look for information like your age and how long you have lived here.

Is it ok for me to carry on?

Do I have to take part?

- If you do not want to talk to me, just say no.
- This will not affect the way you are treated now or in the future.
- If you say yes, but then you change your mind, that is OK.
- You can stop at any time just tell me 'I want to stop'. You do not need to tell me why you want to stop.

What will we talk about?

Next time, I will ask you questions about the time when you had a bad day and found it difficult to cope or a time when you were coping well. I would like you to help me understand what you were thinking. What you were feeling and what you did. I hope that this will help to understand why you and other people do things like this. This will be for about half an hour to an hour (or as long as you like). You will get a chance to ask me any questions about the study.

What happens to the information I give to Rachael?

You do not have to talk about anything that you do not want to. What you tell me is confidential. That means I will not tell anybody else what you say to me. But, if you tell me that you or someone else is in danger now or in the past, I may have to tell (*named person*).

I will record what we talk about. This is so that I do not miss the important things that you tell me. After we have talked, I will use the recording to write down what you told me. This is so I can read it and try and understand what you told me.

This information will be kept locked-up in a safe place. Your name will not be on what I write down. Only Rachael and Professor Richard Hastings who is supervising me will hear the tape or see the interview written down. After a year I will destroy the tape.



The report

We will then look at what you and the other clients have said. I will write a report about this. We will let you know what we have found. I can come back to talk to you and show you the report. The report I write will not mention your name or any other personal thing about you.

What are the good and bad things about taking part?

The good things about taking part are:

- You will have a chance to share your thoughts about your bad day/time you did well
- You can help others to understand what things are important when you have a bad day/are doing well
- You could help to change the way services are set up in the future, which would help other people like you

The bad things about taking part in the project are:

- Sometimes when we think about these things and tell other people it can upset us. This might happen during the interview
- You would have to meet me for up to an hour
- It could be difficult to answer some of the question

Would you like to take part in the research?

It is up to you to decide if you would like to take part. You can have some time to think about it and possibly talk to someone you know about it.

Who can I contact if I want to talk about the research?

I will come back tomorrow to talk to you. If you have any questions you can ask someone to write them down and we can talk about them next week. Or you can ask someone to ring me on 01248 382 211.

Thank you for letting me talk to you about my research.

Do you want to ask me anything?

Complaints

For any complaints concerning the conduct of this research, these should be addressed to: Professor Oliver Turnbull, Head of School of Psychology, Bangor University, Bangor, Gwynedd, LL57 2AS.



Rhif Adnabod Cyfrannogwyr.....

**Marcwyr Risg ar gyfer Ymddygiadau Troseddol mewn Oedolion ag
Anableddau Dysgu**

Fy enw i yw Rachael Lofhouse. Rwyf yn fyfyrwraig o Brifysgol Bangor.

Mae'r daflen hon yn son am yr ymchwil rwyf yn gwneud a pam efallai y byddwch eisiau cymryd rhan.

Beth yw Ymchwil?



Mae ymchwil yn ffordd o ddarganfod pethau mewn ffordd drefnus.

Mae fy ymchwil i yn ceisio darganfod beth sydd yn digwydd i bobl pan faent yn cael diwrnod gwael ac yn brwydro i ymdopi. Rwyf yn gweithio gyda Debs, Jonathon ag Ellie o'r adran Seicoleg a gyda Richard Hastings o Brifysgol Bangor.

Am beth mae'r ymchwil?

- I ofyn i chi am beth rydych yn teimlo, meddwl ac yn ei wneud pan rydych yn cael diwrnod gwael neu pan rydych yn ymdopi yn dda

Pam fy mod i wedi gofyn i chi cymryd rhan?

Oherwydd eich bod:

- Weithiau yn cael trafferthion i ddysgu pethau newydd neu sut i ddatrys problemau
- Wedi cael diwrnod gwael pan wnaethoch chi ei gweld hi yn anodd ymdopi

Beth mae'n rhaid i mi ei wneud?



- Rwyf am ofyn i chi arwyddo ffurflen cydsyniad. Mae hyn yn golygu bydd hi yn iawn i mi ddod i'ch gweld yfory i ofyn cwestiynau
- Os wnewch chi roi caniatâd, mi wnâi edrych ar eich ffeil i weld pan gawsoch chi eich diwrnod gwael olaf neu i weld pryd cawsoch chi ddiwrnod da. Mi wnâi hefyd edrych am wybodaeth ynglŷn â'ch oedran a faint more hir rydych wedi byw yma.

Ydy hi yn iawn i mi barhau?

Os rhaid i mi gymryd rhan?

- Os nad ydych eisiau siarad â mi, yna dywedwch na.
- Ni wneith hyn effeithio'r ffordd mae pobl yn gweithio a chi yn nawr neu yn y dyfodol.

- Os cytunwch chi i gymryd rhan nawr, mae'n iawn i chi dweud na yn y dyfodol.
- Fedrwcw chi ofyn i mi orffen ar unrhyw amser. Nid oes rhaid i chi ddweud pam.

Beth wnawn ni siarad am?

Mi wnâi ofyn cwestiynau i chi am adeg pan gawsoch chi ddiwrnod gwael neu pan wnaethoch chi frwydro i ymdopi neu pan gawsoch chi ddiwrnod da. Rwyf eisiau i chi helpu mi i ddeall beth roeddech chi yn meddwl, teimlo a beth wnaethoch chi ei wneud. Mi wnai hefyd ofyn i chi beth wnaeth pobl erill yn ysdod yr amser yma a beth oedd yn mynd ymlaen o'ch cwmpas.

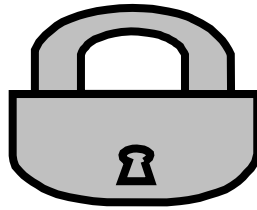
Rwy'n gobeithio gwneith hyn helpu mi i ddeall pam yr ydych chi a phobl eraill yn gwneud pethau fel hyn. Mi wnâi siarad â chi am tuag awr, neu am mor hir rydych eisiau siarad â mi. Fe gewch chi hefyd cyfle i ofyn cwestiynau am yr ymchwil.

Beth fydd yn digwydd i'r wybodaeth rwyf yn rhoi i Rachael?

Ni does rhai i chi ddweud dim byd wrthyf os nad ydych eisiau. Mae beth sydd yn cael ei ddweud yn gyfrinachol. Mae hyn yn golygu ni fyddaf yn dweud wrth neb am yr hyn rydych yn dweud wrthyf. Ond, os ydych yn dweud eich bod chi, neu berson arall mewn perygl nawr, neu wedi bod n y gorffennol, bydd rhaid i mi ddweud wrth (person penodol).

Mi wnâi recordio beth rydym yn ei ddweud, er mwyn i mi beidio ag anghofio'r pethau pwysig rydych yn ei ddweud. Ar ôl i ni siarad, mi wnâi defnyddio'r tap i ysgrifennu pob dim wnaethoch chi ei ddweud er mwyn i mi ddarllen a cheisio deall beth oedd yn digwydd.

Mi fydd y wybodaeth yma yn cael ei chadw mewn lle diogel. Ni fydd eich enw ar ddim byd rwyf yn ysgrifennu. Ond Rachael a'r Athro Richard Hastings (sydd yn fy ngoruchwylio) bydd yn clywed y tap neu yn gweld yr hyn rwyf yn ysgrifennu i lawr. Ar ôl 1 blwyddyn mi wnâi dinistrio'r tap.



Yr adroddiad

Mi wnâi ysgrifennu adroddiad am beth yr ydych chi a'r cleientiaid eraill wedi ei ddweud. Mi wnâi adael i chi wybod beth yr ydwyf wedi ei darganfod. Mi fedrai dod yn ôl i siarad â chi am, neu dangos yr adroddiad i chi. Ni fydd yr adroddiad yn cynnwys eich enw, neu dim gwybodaeth bersonol amdanoch chi.

Beth yw'r pethau da a drwg am gymryd rhan?

Y pethau da am gymryd rhan yw:

- Cewch gyfle i siarad am eich teimladau yn ystod eich amser gwael neu amser da
- Byddwch yn helpu eraill i ddeall pa bethau sydd yn bwysig i chi pan rydych yn cael amser gwael neu amser da
- Efallai byddwch yn helpu i newid i ffordd mae gwasanaethau yn cael ei redeg yn y dyfodol. Bydd hyn o help i bobl fel chi.

Y pethau drwg am gymryd rhan yw:

- Weithiau pam rydym yn meddwl am y pethau yma gallwn dael ein cynhyrfu neu teimlo yn drist. Gall hyn digwydd yn ystod y cyfweiliad
- Bydd rhaid i chi siarad â mi hyd at awr
- Efallai bydd hi'n anodd i chi ateb rhai cwestiynau- nid oes rhaid i chi eu hateb os nad ydych yn teimlo'n gyfforddus gwenud.
-

Ydych chi eisiau cymryd rhan mewn ymchwil?

Eich penderfyniad chi yw cymryd rhan mewn ymchwil neu beidio. Cewh peth amser i wneud y penderfyniad. Efallai byddwch eisiau siarad a rhywun am gymryd rhan.

Â phwy gaf siarad am yr ymchwil?

Mi wnâi siarad â chi eto'r wythnos nesaf. Os oes gennych unrhyw gwestiynau yna gofynnwch i rywun ei ysgrifennu i lawr a fedrwn siarad amdanynt yr wythnos nesaf. Neu cewch chi ofyn i rywun fy ffonio ar 01248 382 211.

Diolch yn fawr am adael i mi siarad â chi ynglŷn â fy ymchwil.

Oes gennych chi unrhyw gwestiynau?

Cwynion

Os oes gennych unrhyw gwynion am y ffordd mae'r ymchwil yn cael ei wneud yna ysgrifennwch at: Yr Athro Oliver Turnbull, Pennaeth yr Ysgol Seicoleg, Prifysgol Bangor, Bangor, Gwynedd, LL57 2AS.

Appendix D
Capacity to Consent Assessment

Capacity to consent assessment

After the Participant Information sheet has been read to the participant, we will then say:

'To do this interview with me I need to be sure you understand what I am asking you to do. If it is ok, I will just ask you some questions about what we have just read'.

Questions

1. Read the following part of the Information sheet: 'I would like us to talk about a time you had a bad day and found it difficult to cope or a time you were doing well.'

Ask the participant: 'Why do I want to come and talk to you?'

Score 2 if the person gives a clear and accurate answer such as 'To talk about a time I had a bad day' 'To talk about a time I was doing well' or 'To ask how I'm feeling'.

Score 1 if the person gives an answer that is similar to but less clear than above response(s).

Score 0 if the answer is vague and/or irrelevant (e.g. 'Say hello').

2. Read the following part of the Information sheet: 'I also want to look at your records to see about things such as how long you have lived here'.

Ask the participant: 'What would I like to look at your records for?'

Score 2 for a clear and accurate answer such as 'see how long I have lived here.'

Score 1 if the person gives an answer that is similar to but less clear than above response.

Score 0 if the answer is vague and/or irrelevant.

3. Read the following part of the Information sheet: 'What you tell me is confidential - this means I won't tell anybody what you say.'

Ask the participant: 'What does confidential mean?'

Score 2 for a clear and accurate answer such as 'You won't tell anybody what I say' or 'What we talk about is private.'

Score 1 if the person gives an answer that is similar to but less clear than above response(s).

Score 0 if the answer is vague and/or irrelevant.

4. Read the following part of the Information sheet: 'If you tell me (in the interview) that you or someone else is in danger now or in the past I may have to tell (named person)'

Ask the participant: 'What will I do if you tell me that you or somebody else is in danger?'

Score 2 for a clear and accurate answer similar to 'you will have to tell..... (named person)'

Score 1 if the person gives an answer that is similar to but less clear than above response.

Score 0 if the answer is vague and/or irrelevant.

5. Read the following part of the Information sheet: 'The report will not mention your name or any other personal thing about you.'

Ask the participant: 'Will your name or personal details be included in report?'

Score 1 if the answer is 'No'.

Score 0 if the answer is 'Yes'.

6. Read the following part of the Information sheet: 'If you say yes, but then you change your mind that is OK. You can stop the interview at any time; just say "I want to stop".'

Ask the participant: 'What will you do if you change your mind?'

Score 2 for a clear and accurate answer such as "I want to stop".

Score 1 if the person gives an answer that is similar to but less clear than above response.

Score 0 if the answer is vague and/or irrelevant.

Overall scoring

		2	1	0
Question 1	Why do I want to come and talk to you?			
Question 2	What will I look at your records for?			
Question 3	What does confidential mean?			
Question 4	What will I do if you tell me that someone is in danger?			
Question 5	Will your name or personal details be given in the results?			
Question 6	What will you do if you change your mind?			

Using the methodology described, if a person scores 0 for each question they are not demonstrating adequate understanding of the information and they should not be interviewed at this time. It may be appropriate to return at a later date to reassess capacity. If an individual scores 1 on all questions it would indicate that their responses are not very clear indicating that perhaps they are not adequately understanding the information. In this situation, the researcher will discuss the individual's potential involvement with a member of staff who knows them well. We will use our judgment to decide whether the individual has provided a sufficiently coherent understanding of the questions in the context of their level of intellectual disability, memory ability, and potential for suggestibility and acquiescence.

This protocol is based on the procedure described by:

Arscott, K., Dagnan, D., & Kroese, B.S. (1998). Consent to psychological research by people with an intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, 11(1), 77-83.

Appendix E

Consent Form English and Welsh Versions



Consent Form

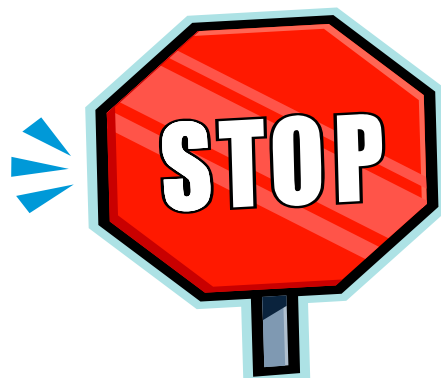
I have read, or someone else has read out to me, the Participant Information Sheet.



Please
tick
the
box

☐

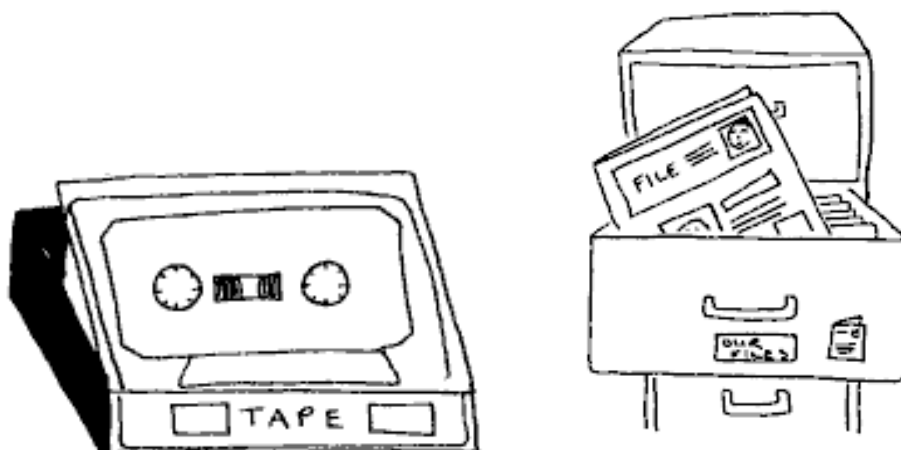
I understand that I can stop the interview at any time. I do not have to give a reason why.



Please
tick
the
box

☐

I understand that my interview will be taped. My name will not be mentioned on the tape. Only Rachael and her supervisor Richard will hear the interview. The tape and other information will be kept in a locked cupboard in Rachael's office. After 12 months, the tape will be destroyed.



Please
tick
the
box

I agree that it is ok for Rachael to look for information from my records. For example, an incident I had, my age and how long I have lived here. I understand my name will not be on this information.

Please
tick
the
box

I would like to take part in the research interview.

Please tick the box

Written Consent

Participant Name	
Participant Signature	_____
Date	_____

Verbal Consent

Participant Name	_____
Witness Name	_____
Witness Signature	_____
Date	_____



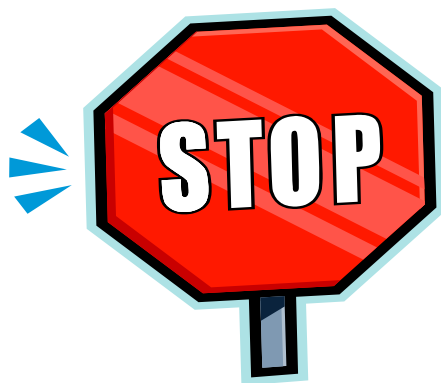
Ffurflen Cydsyniad

Rwyf wedi darllen, neu mae rhywun arall wedi darllen i mi y daflen gwybodaeth i gyfrannogwyr.



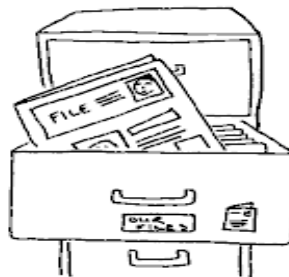
Ticiwch y blwch

Rwyf yn deall fy mod i yn gallu gorffen y cyfweiliad ar unrhyw adeg. Ni does rhaid i mi roi rheswm pam.



Ticiwch y blwch

Rwyf yn deall bydd fy nghyfweliad yn cael ei recordio. Ni fydd fy enw yn cael ei ddweud ar y tap. Rachael a'i goruchwyliwr, Richard yn unig fydd yn cael gwrando ar y tap. Bydd y tap a'r wybodaeth arall yn cael ei gloi mewn cwpwrdd yn swyddfa Rachael. Ar ôl 1 blwyddyn bydd y tap yn cael ei ddinistrio.



Ticiwch y blwch

Rwyf yn cytuno i Rachael chwilio yn fy ffeil am wybodaeth. Er enghraifft, rhywbeth a ddigwyddodd, fy oedran ac am ba mor hir rwyf wedi byw yma. Rwyf yn deall ni fydd fy enw yn cael ei gynnwys ar y wybodaeth yma.

Ticiwch y blwch

Ticiwch y blwch



Rwyf eisiau cymryd rhan yn yr ymchwil

Llofnod	
Cyfrannogwr	_____
Enw	_____
Dyddiad	_____

Cydsyniad ar lafar

Enw'r cyfrannogwr	_____
Enw'r Tyst	_____
Llofnod y Tyst	_____
Dyddiad	_____

Appendix F
Research interview

Research Interview

Good morning/afternoon. My name is Rachael Lofthouse and I am a researcher at Bangor University. Before we start I would like to thank you for helping me today.

I'm going to explain again what we will be doing today. Can you remember I came to see you yesterday about the study I am doing?

Is it still ok to ask you some questions?

Remember, that you do not have to tell me anything you do not want to. If you would like a break then tell me. If you would like to stop at any time you can. You do not need to tell me why.

Do you have any questions?

Interview

Everybody has a bad day when they find it difficult to cope. Some people feel angry, upset or annoyed at times. Different people act in different ways when they feel like this. Some people are quiet and want to be alone. Other people swear, hit out at people or the things around them. By talking to me today, you can help me try to understand why some people do things like this. By knowing this, staff may be able to tell when people are likely to act like this. This means they might be able to help stop people getting so upset.

Generally what kind of things make you angry/upset? (Probe)

What has helped you to keep calm at other times?

A) Or do you remember the bad day you had when you (details of an incident taken from notes/staff)?

Can you tell me about that? Shall we start at the beginning, tell me where you were?

What you were doing?

What happened?

What were you feeling?

What were you thinking?

What did you do?

Why do you think you acted in that way?

What do staff say about you doing this?

What would help you when you are feeling like that?

What makes things worse at this time, if anything?

Why do you think other people might act like that?

B) I'd like you to tell me about a time when you felt like hitting out/being alone/swearing at people but you didn't.

Shall we start at the beginning again, can you tell me where you were and what you were doing.

What were you thinking?

What were you feeling?

What did you do?

What do you think stopped you hitting out/shouting?

What did staff say when you didn't hit out/shout?

What helped you not to hit out/shout?

Thank you very much for answering the questions. Is there anything you would like to ask me?

Appendix G
Risk Assessment

Risk Assessment

What is the Risk & to whom	Level of risk	Precautionary Measures
Lone Worker (researcher)	Low	<p>There will always be a member of staff present during the consent process to minimise risk to the researcher.</p> <p>The researcher will sign in /out of MHC/Castlebesk buildings/sites.</p> <p>The MHC/Castlebeck contact person will be aware of researchers' whereabouts whilst on site. Only day-time visits will be conducted.</p>
Travelling to & from site due to remoteness of sites (researcher)	Low	<p>The researcher will travel by car. map/sat-nav and a mobile phone will be used.</p>
Aggression from client (researcher)	Low	<p>The researcher will end the consent process immediately but sensitively if there is a perceived risk of violence.</p> <p>The researcher has attended the organization's staff induction programme and is trained in CPI (physical restraint & de-escalation) techniques.</p> <p>Risk assessments are conducted on all clients on a yearly basis and this information is available within clients' files. The researcher will familiarise herself with the salient risk issues in these assessments prior to the consent meeting.</p> <p>The researcher will talk to support staff before having client contact to establish if there has been any recent unsettled behaviour or concerns.</p> <p>The researcher will carry a personal alarm where available.</p>

		The researcher will be vigilant of non-verbal signs of distress and will always keep the exits from rooms clear – sitting between the client and the door.
Fire safety (researcher)	Low	On entering premises, the researcher will make herself familiar with fire exits and escape routes
Allegations against researcher (researcher)	Low	<p>Details of visits will be made in clients notes, including date, time, purpose of visit & name of accompanying staff member.</p> <p>The researcher will report any incidence/causes for concern to a senior member of staff immediately.</p>
Allegations against staff/organisation at MHC/Castlebeck (client)	Low	If a client makes an allegation to the researcher regarding any other individual e.g member of MHC/ Castlebeck staff, she will inform the service manager, who will then follow the company process for allegations.
Distress (client)	Low	<p>The researcher will be vigilant for any signs of distress.</p> <p>The client will be reminded that they can end the consent process or take a break at any time. The researcher will provide support by encouraging and listening to the client if they become distressed.</p> <p>The researcher will report any incidences of distress to a member of the clinical team.</p> <p>If the individual remains distressed the researcher will inform them that they can talk to an identified member of staff to provide on-going support.</p>
Distress (researcher)	Low	Distress is not anticipated given that the researcher has ten years experience working with individuals with learning disabilities and

		behaviours that challenge services. If the researcher does become distressed she will discuss the situation with her research supervisor Professor Hastings or Dr Vasiliki Totsika.
If the above conditions can not be met for any reason	Medium - high	The researcher will be unable to conduct the consent process at that time and will arrange an alternative date to return.

Contact system in place:

The research workers will inform a specific person (in Bangor University) where their visit will take place, estimated time of appointment, and the address and phone number of the destination.

When at MHC/Castlebeck settings, the researcher will sign in to the building as a visitor. Personal alarms will be issued at certain sites where necessary. The research workers will also inform an appointed member of MHC staff (Deborah Roberts, or in her absence, her PA) or Castlebeck (Bill Lindsay, or in his absence, his PA) that they will be data collecting on that day and inform them of their whereabouts.

The research workers will telephone their contact persons (in the University & at MHC/Castlebeck) and check in on return from their visit. If the research worker does not phone in within two hours of the expected time, the contact person will endeavour to try contacting the research worker on their mobile, leaving a 15 minute delay between each call.

After two hours of trying to contact the research workers, the contact person will phone the setting that the researchers were visiting. If the contact person is informed that the research workers attended the scheduled meeting and has left, the contact person will carry on trying to contact the research workers on their mobile for another two hours, as well as leaving a message at the workers home to contact the university. If the research workers did not arrive at the research setting, the contact person should try the research workers previous appointments.

If the research workers cannot be located, messages should be left at any other appointments or places that the worker may have visited that day. The research workers family or house members will be contacted so they are aware of the situation and know to contact the university if the research worker returns or contacts home.

After 10-12 hours after initial contact should have been made, the contact person should telephone the emergency services as a last resort.

Appendix H

Participant Information Sheet MHC-UK and Castlebeck



MHC Participant Information Sheet

About me

My name is Rachael, I am a student from Bangor University. I am here to do some research and I'd like to ask for your help.

About the study

We are doing research about when people have a bad day and find it difficult to cope or times they are doing well. As you probably know, here at MHC, each client has a file with different information about them in it. Things like reports and assessments that staff do for everyone at MHC. To help us with our research, and only if you say it is ok, we would like to have a look at some information in your file and incident records. We are asking to look at 3 assessments in your file. We want to do this to see if they are helpful at predicting when people will have a bad day. We would also like to collect other information such as your date of birth, your ethnic group, if you are here under the MHA, how long you have lived here and if you have had any incidents over a 6 month period.



Why have I been asked to take part?

You have been asked to take part because sometimes you have a bad day and found it difficult to cope.

What will happen?

1. You do not need to do anything. I will be asking you if it is ok for me to look at some information in your notes and incident records.
2. If you say it is ok, I'll ask you to sign and date a consent form. This just means you say it is ok for me to look in your notes and incident records.
3. I will collect the information we talked about from your file now and in 6 months I'll collect data about incidents you have might been involved in from your incident records.
4. We will put the information on a computer, with a password. We will **not** put your name on this information.



“Is it ok for me to carry on?”

Do I have to take part?

- If you do not want me to look in your notes and incident records, that is ok, just say no.
- This will not affect the way you are treated now or in the future.
- If you say yes, but then you change your mind, that is OK too.

Would you like to take part in the research?

It is up to you to decide if you would like to take part. You can have some time to think about it and possibly talk to someone you know about it.



What if I have questions about the study?

If you have any questions you can ask someone to write them down and I can come in to talk to you. Or you can ask someone to ring me on 01248 382 211.

Thank you for letting me talk to you about my research.

Do you want to ask me anything?



Castlebeck Participant Information Sheet

About me

My name is Rachael, I am a student from Bangor University. I am here to do some research and I'd like to ask for your help.

About the study

We are doing research about when people have a bad day and find it difficult to cope or times they are doing well. As you probably know, here at Castlebeck, each client has a file with different information about them in it. Things like reports and assessments that staff do for everyone at Castlebeck. To help us with our research, and only if you say it is ok, we would like to have a look at some information in your file and incident records. We are asking to look at 3 assessments in your file. We want to do this to see if they are helpful at predicting when people will have a bad day. We would also like to collect other information such as your date of birth, your ethnic group, if you are here under the MHA, how long you have lived here and if you have had any incidents over a 6 month period.



Why have I been asked to take part?

You have been asked to take part because sometimes you have a bad day and found it difficult to cope.

What will happen?

5. You do not need to do anything. I will be asking you if it is ok for me to look at some information in your notes and incident records.
6. If you say it is ok, I'll ask you to sign and date a consent form. This just means you say it is ok for me to look in your notes and incident records.
7. I will collect the information we talked about from your file now and in 6 months I'll collect data about incidents you have might been involved in from your incident records.
8. We will put the information on a computer, with a password. We will **not** put your name on this information.



"Is it ok for me to carry on?"

Do I have to take part?

- If you do not want me to look in your notes and incident records, that is ok, just say no.
- This will not affect the way you are treated now or in the future.
- If you say yes, but then you change your mind, that is OK too.

Would you like to take part in the research?

It is up to you to decide if you would like to take part. You can have some time to think about it and possibly talk to someone you know about it.



What if I have questions about the study?

If you have any questions you can ask someone to write them down and I can come in to talk to you. Or you can ask someone to ring me on 01248 382 211.

Thank you for letting me talk to you about my research.

Do you want to ask me anything?

Appendix I

Staff Information Sheet MHC-UK and Castlebeck



Staff Information Sheet

Purpose of the study

The aim of the study is to assess the predictive accuracy of a dynamic risk tool developed for individuals with an intellectual disability. The research will compare the performance of the tool to two other measures routinely used at MHC. The research will look at how well the 3 tools are able to predict violent behavior among clients within a six month period. The research aims to address the need for ID specific tools that use dynamic rather than static factors to assess the likelihood of violence in ID settings.

What will be involved?

The three assessments are routinely completed by staff on all clients in MHC. As such, the data should already be available in the client's file. We would like to collect the following demographic data: gender, date of birth, ethnicity, MHA status, ID diagnosis and length of stay. After 6 months, we will look at incident data to see how many violent incidents the individual has been involved in.

We will be asking the client for his/her permission to look at their notes and incident records to access this information. The client will not be asked to participate in the research in any other way. If the client is interested in taking part, we will assess whether they have the capacity to consent to the research. If they do have the capacity we will ask them to sign and date a consent form. If the client refuses, they will be assured that this is perfectly ok and it will not affect their care in the future. If the client does not have the capacity to consent we will not access data from their files or incident records.

Confidentiality and data protection.

All data collected will be anonymised and added to a computerized database that will be password protected. All paperwork relating to the capacity and informed consent process will be locked in a filing cabinet in the School of Psychology, Bangor University or the researchers' home address.

After the research is complete.

The findings from this research will be summarized and disseminated to all clients and staff. We hope that the research will be published in an appropriate journal and presented at relevant conferences.

Any questions?

If you have any questions or concerns about this research, please contact Hefin Francis (school manager) The School of Psychology, Bangor University, Pen yr Allt Road, Bangor, Gwynedd, LL57 2AS. Tel: 01248 382211

Many thanks for assisting with this research.

Rachael Lofthouse PhD student

pspac2@bangor.ac.uk

Supervised by:

Professor Richard Hastings, School of Psychology, Bangor University

Dr Vasiliki Totsika, School of Psychology, Bangor University

Professor Bill Lindsay, Castlebeck, Darlington

Deborah Roberts, Clinical Lead and Consultant Clinical Psychologist



Staff Information Sheet

Purpose of the study

The aim of the study is to assess the predictive accuracy of a dynamic risk tool developed for individuals with an intellectual disability. The research will compare the performance of the tool to two other measures routinely used at Castlebeck. The research will look at how well the 3 tools are able to predict violent behavior among clients within a six month period. The research aims to address the need for ID specific tools that use dynamic rather than static factors to assess the likelihood of violence in ID settings.

What will be involved?

The 3 assessments are routinely completed by staff on all clients in Castlebeck. As such, the data should already be available in the client's file. We would like to collect the following demographic data: gender, date of birth, ethnicity, MHA status, ID diagnosis and length of stay. After 6 months, we will look at incident data to see how many violent incidents the individual has been involved in.

We will be asking the client for his/her permission to look at their notes and incident records to access this information. The client will not be asked to participate in the research in any other way. If the client is interested in taking part, we will assess whether they have the capacity to consent to the research. If they do have the capacity we will ask them to sign and date a consent form. If the client refuses, they will be assured that this is perfectly ok and it will not affect their care in the future. If the client does not have the capacity to consent we will not access data from their files or incident records.

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Many thanks for assisting with this research.

Rachael Lofthouse PhD student

pspac2@bangor.ac.uk

Supervised by:

Professor Richard Hastings, School of Psychology, Bangor University

Dr Vasiliki Totsika, School of Psychology, Bangor University

Professor Bill Lindsay, Castlebeck, Darlington

Deborah Roberts, Clinical Lead and Consultant Clinical Psychologist

Appendix J

Capacity to consent Assessment

Capacity to consent assessment

Read the Participant Information sheet, then say:

“To take part in this research I need to be sure you understand what I am asking you to do. If it is ok, I will just ask you some questions about what we have just read”.

Questions

1. Read the following part of the Information sheet: ‘We are doing research about when people have a bad day and find it difficult to cope, or a time they are doing well’.

Ask the participant: ‘Why am I here?’

Score 2 if the person gives a clear and accurate answer such as ‘to do research.’

Score 1 if the person gives an answer that is similar to but less clear than above response(s).

Score 0 if the answer is vague and/or irrelevant (e.g. ‘Say hello’).

2. Read the following part of the Information sheet: ‘You do not need to do anything. I will be asking you if it is ok for me to look at some information in your notes and incident records.’

Ask the participant: ‘What will you need to do?’

Score 2 for a clear and accurate answer such as ‘say if you can look at my notes and incident records.’

Score 1 if the person gives an answer that is similar to but less clear than above response.

Score 0 if the answer is vague and/or irrelevant.

3. Read the following part of the Information sheet: ‘We will put the information on a computer, with a password. We will not put your name on this information.’

Ask the participant: ‘Are you happy for me to look at your records and collect this information?’

Answer yes or no.

4. Ask the participant: ‘What will you do if you change your mind?’

Score 2 for a clear and accurate answer such as ‘tell you I don’t want you to look at my notes.’

Score 1 if the person gives an answer that is similar to but less clear than above response.

Score 0 if the answer is vague and/or irrelevant.

Overall scoring

		2	1	0
Question 1	Why am I here?			
Question 2	What will you need to do?			
Question 3	Are you happy for me to come and collect this information?			
Question 4	What will you do if you change your mind?			

Using the methodology described, if a person scores 0 for each question they are not demonstrating adequate understanding of the information and the consent process should be abandoned at this time. It may be appropriate to return at a later date to reassess capacity. If an individual scores 1 on all questions it would indicate that their responses are not very clear indicating that perhaps they are not adequately understanding the information. In this situation, the researcher will discuss the individual's potential involvement with a member of staff who knows them well. We will use our judgment to decide whether the individual has provided a sufficiently coherent understanding of the questions in the context of their level of intellectual disability, memory ability, and potential for suggestibility and acquiescence.

This protocol is based on the procedure described by:

Arscott, K., Dagnan, D., & Kroese, B.S. (1998). Consent to psychological research by people with an intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, 11(1), 77-83.

Appendix K

Consent Form MHC-UK and Castlebeck



Consent Form

Please circle

1. I have been given information about the study

YES

NO

2. I have been able to ask questions if I wanted

YES

NO

3. I know that I can say no at any time

YES

NO

4. I am happy for my information to be used

YES

NO

Written Consent

Signed.....

Date.....

Verbal Consent

YES

NO

N/A

Witnessed by

Name.....

Position.....

Date & Time.....

Researcher.....

Date & Time.....

Appendix L

CuRV Risk tool

Current Risk of Violence – CuRV

Administration

The CuRV must be completed by an individual staff member or carer, not as part of a team discussion.

Appropriate populations

The CuRV is designed for use with adults aged 18 upward who fall in the mild to borderline range of intellectual disability and have a history of aggressive behaviour.

Reporting staff member's knowledge of the individual

The tool can be used by staff working directly with individuals including support workers, keyworkers, nurses, clinical nurse specialists, speech and language therapists, psychologists, and other clinical staff. Staff members must be familiar with the individual and have known and worked regularly with them for at least **three months**. Specific training is not needed to complete the assessment but staff should have substantial direct experience of the person being rated and of working with other individuals with a mild – borderline intellectual disability.

Completing the CuRV

Record the demographic information on the following page in the space provided. Then turn to page 3, read the first item and decide whether or not that statement describes your client's behaviour during the past month. Base your answer on how the client compares to other clients and adults with mild – borderline intellectual disability. Consider both your own observations and the reports of colleagues and informed others over the **past month**. Consider his/her general behaviour and interpersonal behaviour towards others. You are asked to respond to the question in blue. More detailed item descriptions are in black, and they are examples of possible behaviours to think about. The client you are rating does not have to have demonstrated this particular example behavior, but behaviours that you think are similar and related to this theme should be rated.

In the box provided next to the item, tick 'yes' if the behaviour described is applicable to your client over the past month and 'no' if not applicable. Repeat the procedure for all items in the CuRV.

Please do not leave any items without a Yes or No response. Unless you are clear that you have

evidence yourself, or reports from others, that the behaviour described has been present in the past month, you should select a No response. Space is provided on page 9 for additional comments.

Demographic Information

Client name	
Male or Female (please circle)	
Name of service/service setting	
Name and job title of person completing the risk assessment	
Date of rating	

1.General impulsivity	
In the past month, did the individual appear to react to situations without thinking? <i>The individual may have acted without planning or thinking about the consequences of their actions, acting on the spur of the moment.</i>	Yes
	No
2.Anger	
In the past month, did the individual appear to be frustrated often or lose their temper easily? <i>The individual may have visibly lost their temper or seemed to become frustrated more easily than usual. They may have reported feeling offended or wronged, or appeared tense and agitated.</i>	Yes
	No
3.Irrational beliefs	
In the past month, did the individual talk out loud about irrational thoughts or engage in unusual behaviours? <i>Individuals may have reported strange or peculiar experiences or talked out loud irrational thoughts about people or situations. They could have appeared confused or disorientated.</i>	Yes
	No
4. Lack of insight	
In the past month, did the individual appear unaware of the consequences of their actions? <i>It might seem that the individual did not have a clear understanding of expectations, boundaries, and consequences of their behaviour. For example, they may not have insight into their own behavioural problems and did not recognise when they needed help.</i>	Yes
	No
5.Lack of responsibility	
In the past month, did the individual show a lack of responsibility for their own behaviour? <i>The individual might have demonstrated a lack of responsibility for their own behaviour, or minimised the seriousness of their behaviour. They may have tried to blame other people for their problems or behaviour.</i>	Yes
	No

6. Feeling aggrieved	
<p>In the past month, did the individual talk or act as though they felt aggrieved or were resentful about something?</p> <p><i>Individuals may have felt there was lack of equality or fairness in some aspect of their life. For example, the individual may have felt upset that they did not have the same amount of free time as others, or that other people were progressing through the system quicker than they were.</i></p>	<p>Yes</p>
	<p>No</p>
7. Withdrawal	
<p>In the past month, did the individual reduce their level of interaction with others?</p> <p><i>The individual may have started to spend increasing amounts of time alone, which is not typical behaviour for them. Alternatively, there may have been subtle changes in engagement with professionals and ward staff. For example, the dialogue they engaged in with staff might not have been as deep/detailed as usual. They may have been attempting to sabotage relationships with staff in order to withdraw.</i></p>	<p>Yes</p>
	<p>No</p>
8. Poor coping ability	
<p>In the past month, has there been an obvious change in the client's coping ability?</p> <p><i>The individual may have seemed unable to deal with internal or external demands recently (e.g. coping with other people, problem solving, an increase in responsibility or choices) and may have felt overwhelmed. The individual may have developed maladaptive coping strategies or tried to avoid situations rather than actively coping with them.</i></p>	<p>Yes</p>
	<p>No</p>
9. Signs of dependence	
<p>In the past month, did the individual appear to be more dependent on others?</p> <p><i>Individuals may have seemed increasingly insecure and more dependent on others. For example, seeking help or assistance with things they can usually do on their own. There may have been an increase in reassurance seeking behaviours.</i></p>	<p>Yes</p>
	<p>No</p>
10. Self esteem	
<p>In the past month, did the individual seem to have low self esteem?</p> <p><i>Individuals may have made negative evaluations about themselves and their abilities and generally felt bad about themselves. They may have exhibited low self esteem because they felt like they were not making progress, they believed people did not like them, or they were unsure of themselves.</i></p>	<p>Yes</p>
	<p>No</p>

11.Low mood	
<p>In the past month, has the individual's mood been low or fluctuating? <i>There may have been obvious changes or inappropriate displays of mood/emotion recently. The individual may have appeared sad, hopeless, they may not have been able to enjoy things they usually find pleasurable, or have little interest in activities or events. Physical signs include tiredness, loss of energy.</i></p>	Yes
	No
12.Demand avoidance	
<p>In the past month, did the individual feel under pressure or try to avoid demands? <i>The individual may have been attempting to avoid everyday demands (e.g. encouragement to comply with personal hygiene). They may have felt pressured to live up to others expectations (e.g. from external sources to move on when they are not ready).</i></p>	Yes
	No
13.Physical aggression	
<p>In the past month, has the individual been physically aggressive? <i>The individual may have been 'acting out' recently. Examples may include slamming doors, throwing furniture, causing damage to property or being physically aggressive toward other people (e.g. punching, kicking).</i></p>	Yes
	No
14. Verbal aggression	
<p>In the past month, has the individual has been aggressive verbally? <i>The client may have been bullying or provoking others. Examples may include shouting, making derogatory or inappropriate comments about people.</i></p>	Yes
	No
15.Pro offending attitude	
<p>In the past month, did the individual talk/act as though violence is acceptable? <i>The way the individual has been talking or behaving recently might suggest they think aggression is a good thing. For instance, they may have been boasting about times they have been violent or take pleasure from violence on TV/films. The client may think being aggressive leads to status and kudos.</i></p>	Yes
	No

16. Lack of Compliance	
In the past month, did the individual appear to be non compliant or oppositional in some aspect of their life? <i>The individual may have been acting in a noncompliant, rebellious, stubborn or uncooperative manner. This could relate to any aspects of their life including supervision, management, treatment, medication and compliance with Mental Health Act (MHA) restrictions.</i>	Yes
	No
17.Somatic concern	
In the past month, has there been an increase in complaints about physical health or attempts to seek medical attention? <i>The individual may have complained about their health frequently and made excessive requests to see the doctor or nurse. They may have pseudo seizures (i.e., non genuine) to access medical attention.</i>	Yes
	No
18.Substance abuse problems	
In the past month, did the individual access or attempt to access drugs/alcohol? <i>There may have been an increase in the use or a misuse of alcohol, illicit drugs, or prescription medication. The individual may have made attempts to get intoxicants into the unit.</i>	Yes
	No
19.Anti-social behaviour	
In the past month, has the individual been acting in an antisocial manner? <i>There might have been a change in attitude and/or behaviours that suggested a lack of consideration for others. The individual might have been more rowdy, noisy or threatening than usual. Other clients may have felt unsafe as a result of this individual's behaviour.</i>	Yes
	No
20. Medical Complaints	
In the past month, has the individual had health complaints? This item includes genuine health complaints that caused distress for the individual such as constipation, tooth or ear ache, etc.	Yes
	No

21.Communication and consistency	
<p>In the past month, has the approach to this individual been inconsistent? <i>There may have been a lack of regular, open and clear communication amongst the multi-disciplinary team regarding the individual. The team approach may have been inconsistent, or failed to include clear boundaries for this individual. The team might have felt they have had inadequate training, poor supervision, leadership or organisation.</i></p>	Yes
	No
22.Changes in staff team	
<p>In the past month, have there been changes in the individual's core staff team? <i>There may have been a change to the regular staff team, including familiar staff leaving, new staff arriving, or a high turnover of staff.</i></p>	Yes
	No
23.Staff found individual difficult	
<p>In the past month, did staff find it difficult to work with this individual? <i>Relationships between staff and the individual may have been problematic recently. Staff might have found it difficult to work with the individual.</i></p>	Yes
	No
24.Allowances made by staff	
<p>In the past month, did staff make allowances for the individual? <i>Staff may have made allowances for the individual recently or have been lenient or complacent. This could include allowing the individual to be late for therapy sessions or missing appointments.</i></p>	Yes
	No
25. Knowledge of the individual	
<p>In the past month, did staff working with the individual feel they knew the client well and were aware of his/her behavioural or risk indicators? <i>This item refers to direct care/support staff having adequate knowledge and understanding of the individual. This knowledge is gained from previous incidents and an established rapport with the individual. Staff may have felt that they lacked insight into the individual's behaviour patterns, or risk indicators.</i></p>	Yes
	No

26.Change in intimate relationships	
<p>In the past month, has the individual experienced a breakdown in a relationship or had trouble maintaining a relationship?</p> <p><i>The individual may have been struggling to maintain, or has experienced a disruption to, an intimate relationship with a significant other (not family).</i></p>	<p>Yes</p>
	<p>No</p>
27.Relationships with peers	
<p>In the past month, did the individual seem unable to get along with people?</p> <p><i>The individual may have had trouble getting on with people recently (not including intimate relationships). They may have been complaining about peers, bullying, antagonising others or they may have been on the receiving end of such behaviours. The individual could have been involving themselves in other clients' business, or engaging in surreptitious (secretive) conversations with peers.</i></p>	<p>Yes</p>
	<p>No</p>
28.Family problems/dynamics	
<p>In the past month, did the individual appear apprehensive about a situation involving their family?</p> <p><i>An approaching meeting with a family member may have caused anxiety or distress due to a difficult relationship. Alternatively, the individual may have been frustrated at the lack of contact with their family or lack of proximity to family. The client may have felt unsupported by their family.</i></p>	<p>Yes</p>
	<p>No</p>
29.Lifestyle regulation	
<p>In the past month, has there been disruption to normal routine, or a lack of structure in the client's life?</p> <p><i>There may have been a lack of structure and stability in the individual's life recently. They might have experienced a chaotic lifestyle. The client might have experienced a recent change or a disruption to a normal sleep pattern, for example.</i></p>	<p>Yes</p>
	<p>No</p>
30.Meaningful activity	
<p>In the past month, has the individual stopped or reduced the amount of meaningful activity they usually do?</p> <p><i>The individual may have chosen not to engage in meaningful activities such as day service sessions, social activities, although they were available (not stopped/reduced due to illness).</i></p>	<p>Yes</p>
	<p>No</p>

31.Recent setback	
In the past month, did the client experience a setback or feel frustrated? <i>There might have been behaviour changes as a result of a perceived setback or disappointment (e.g. an arranged outing being cancelled, staff sickness, or a gradual increase in one disappointment after another, service providers or commissioners failing to deliver promises). It may also be that the case that the individual felt their needs and demands were not being met (things being delayed, expectations not met).</i>	Yes
	No
32.Physical environment	
In the past month, did the individual appear distressed by or have a problem with the environment they live in? <i>Living in close proximity to other service users could have been a cause of frustration. For example, the ward environment could be particularly noisy or too quiet for the individual. A peer may have been experiencing mental health problems or exhibiting challenging behaviours that the individual has been affected by.</i>	Yes
	No
33.Restrictions in the environment	
In the past month, did the individual appear unhappy with restrictions in their environment? <i>The individual may have felt they were unfairly denied access to tangibles such as cigarettes. They may have seemed unhappy with current restrictions or regimes for access to their room, or free time. This may have resulted in feelings of frustration and resentment that could be made worse by a lack of physical space to escape to.</i>	Yes
	No
34.Significant future event	
In the past month, did the individual seem concerned about a future event? <i>Individuals might have become stressed or over stimulated due to anticipation of a significant life event. Such situations could include, for example CPA (Care Programme Approach), MAPPA (Multi Agency Public Protection Arrangements) meetings, tribunals, anniversary of a death, a major change or something the individual perceives as important to their progress within the next year, such as a probation review.</i>	Yes
	No

Comments: