EXAMINING SOCIAL PROBLEM SOLVING PROGRAMMES WITH MENTALLY DISORDERED AND INTELLECTUALLY DISABLED OFFENDERS IN SECURE HOSPITAL SETTINGS

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ABSTRACT

This thesis examines the effectiveness of social problem solving programmes and the efficacy of an assessment tool designed for mentally disordered offenders (MDOs) and intellectually disabled (ID) offenders in secure hospital settings. Firstly, a systematic review concluded that all studies reported benefits of the social problem solving programmes with MDOs. Several studies also identified that shorter revised programmes had lower drop-out rates, and were more cost-effective. Methodological limitations were identified and suggested further research is needed.

Secondly, Interpretative Phenomenological Analysis (IPA) was utilised to explore the meanings ID offenders in a secure hospital attribute to their experience of the Thinking Skills Offender Programme (TSOP). Five themes emerged and participants' conveyed a sense of hope in relation to their treatment, discussed challenges they faced, identified the impact the TSOP had on factors contributing to their offending behaviour, and wanted to share their experiences with a wider audience. Further research to develop effective programmes for ID offenders is discussed.

Thirdly, an assessment and treatment of an adult male violent offender with ID and Autistic Spectrum Disorder (ASD) who undertook the TSOP in a medium secure unit is examined. The findings highlighted the difficulties in assessing and treating such patients using conventional methods and the need for standardised assessments and interventions for this population is discussed. Finally, the reliability and validity of the Novaco Anger Scale and Provocation Inventory (NAS-PI) is examined with MDOs and ID offenders. Its clinical utility in inpatients settings and limitations are also discussed. This thesis has highlighted the benefits of social problem solving programmes with MDOs and ID offenders, difficulties of conducting research with this population, and the need for further rigorous research into assessments and interventions.

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CHAPTER 1

1. INTRODUCTION

1.1 Mentally Disordered Offender (MDO) definition and offending behaviour

In the UK, mental disorder is defined in the Mental Health Act (1983 amended 2007) as 'mental illness, arrested or incomplete development of mind, psychopathic disorder and any other disorder or disability of mind'. Mental illness typically includes schizophrenia, major affective disorders, a wide range of personality disorders, and some rarer, atypical and organic conditions (Perkins, 2010). An offender who has a mental disorder is described by the Crown Prosecution service in the United Kingdom as "a person who has a disability or disorder of the mind and has committed or is suspected of committing a criminal offence", which includes a range of offences, disabilities and disorders (Magill & Rivers, 2010).

A mentally disordered offender (MDO) maybe allowed diversion from the criminal justice system to a psychiatric hospital (Prins, 2016). MDOs may be remanded to hospital, sentenced to a hospital order or hospital direction by a criminal court or transferred from prison to hospital by the Home Secretary's warrant (Fennell, 2008). At the end of October 2016 there were 4690 MDOs detained in hospital (National Offender Management Service, 2016).

The existence of a link between mental disorder and violence continues to be debated. Whilst some have argued against a clear link (Bonta, Law & Hanson, 1998) Hodgins (2008) stated that individuals with severe mental illness, and more particularly those with schizophrenia repeatedly engage in aggressive behaviour towards others, some of which leads to criminal prosecution for violent crimes. Kolla and Hodgins (2013) asserted that

there is now robust evidence demonstrating that individuals with schizophrenia are at elevated risk, as compared to the general population, to be convicted of non-violent criminal offences, at higher risk to be convicted of violent criminal offences and at even higher risk to be convicted of homicide.

It has also been noted that factors predictive of offending behaviour in mentally disordered samples are often the same as those in non-mentally disordered offenders (Heilbrun, Hart, Hare, Gustafson, Nunez & White, 1998), leading to a focus on addressing risk factors such as antisocial attitudes, poor education, impulsivity, poor reasoning and problem-solving, rather than exclusively on the mental disorder (Blackburn, 2004).

1.2 Intellectual Disability (ID) Definition and offending behaviour

As mentioned above some offenders with intellectual disabilities (ID) may also be diverted from the criminal justice system to secure hospitals. The term ID is used internationally and corresponds with the term learning disability, which is used in health and social care contexts in the United Kingdom (UK; Taylor & Lindsay, 2010). For an ID to be identified there is a requirement for significant impairments of both intellectual and adaptive/social functioning to coexist and the age of onset is below the age of 18 years (British Psychological Society, 2000). Prins (2016) stated that mental illness and mental impairment (intellectual disability) can coexist in some individuals.

The evidence supporting a relationship between offending and intellectual functioning (IQ) in the general population is well-founded, with those with lower IQs showing greater rates of offending than those in higher-functioning groups (Goodman, Simonoff & Stevenson, 1995). However, studies including participants with significantly low IQs (less than 80 IQ), offending rates for this group have been found to be lower than those in

the low average group (81 to 90 IQ; Taylor & Lindsay, 2010). Therefore, it is not clear that people with ID commit more crime than those without ID, and there is no clear evidence to show the frequency and nature of offending by people with ID differs from that committed by offenders in the general population (Lindsay & Taylor, 2008).

However, research has shown aggression to be a serious issue in the ID population (Taylor, 2002). Taylor and Lindsay (2010) reported that it is the main reason for people with ID being admitted to institutions.

1.3 Treatment in secure hospitals

A hospital order sentences a MDO to detention in hospital for treatment rather than in jail. Appropriate treatment can include psychological treatment, care, and rehabilitation, which is intended to alleviate or prevent deterioration in the patient's condition. The revised definition of mental disorder means that people with learning disability (subject to the presence of abnormally aggressive or seriously irresponsible conduct), people with mental illness and people with personality disorders (who are thought to benefit most from psychological interventions such as Cognitive-behavioural Therapy; CBT) may be detained if their disorder is of a nature or degree making it appropriate for them to be detained for treatment (Fennell, 2008).

Relatedly, Kolla and Hodgins (2013) assert that forensic services are mandated to provide treatments for MDOs that address both the illness and the aggressive and anti-social behaviours, and that outcomes from these services for this population can be positive. For example, Hodgins et al. (2007) found that during the two years in the community after discharge, the patients from forensic hospitals had fewer psychotic symptoms and proportionately fewer of them had engaged in aggressive behaviour.

Perkins (2010) reported that treatment programmes for MDOs should, like those for offending behaviour more generally, address the principles of 'risk', 'need' and 'responsivity' (Bonta et al., 1998). 'Risk' refers to risk of future offending upon which resources should be deployed; 'Need' refers to the targeting of treatment at the specific (criminogenic and mental health) needs of the individual which has led to the offending behaviour. 'Responsivity' refers to the design of treatments around the specific characteristics of the offender-patient that will impact on his/her ability to benefit from the treatment (e.g. level of intelligence).

McGuire (2002) reported that a meta-analysis found that Cognitive-behavioural treatments addressing the specific needs of offenders rather than generic causes of offending demonstrated positive results and this approach is now being adopted in the treatment of MDOs (Duncan, Nicol, Ager & Dalgleish, 2006).

1.4 CBT interventions with MDOs and ID offenders

Wykes, Steel, Everitt and Tarrier (2008) reported that CBT aims to help patients understand the connections between their thoughts, feelings and behaviours and enables them to develop strategies that challenge the negative or unreasonable thoughts fuelling maladaptive behaviours. Further, CBT has been shown to reduce psychotic symptoms among persons with schizophrenia, and a number of empirical studies of treatment programmes incorporating CBT interventions for forensic inpatients with treatment-resistant schizophrenia or chronic psychosis have also reported modest improvement in participants' cognitive skills (Hodel & West, 2003).

Layton Mackenzie (2000) reported that CBT programmes, addressing crimingoenic needs such as criminal thinking were more effective than non-directive methods. One of the main developments in mainstream

criminal work has been in the area of criminal thinking and social problem-solving programmes. The purpose of these cognitive skills programmes is to equip offenders with thinking skills that will promote alternative, pro-social means of approaching social situations including high-risk situations in which the person is at risk of offending (Lindsay & Michie, 2013).

The two most widely adopted mainstream programmes in prison are the Reasoning and Rehabilitation (R&R; Ross, Fabiano & Ewles 1988) and the Enhanced Thinking Skills (ETS, Clark, 2000), which adopts CBT principles to address underdeveloped problem-solving skills, values and attitudes connected with pro-criminal thinking and behaviour (Ross & Fabiano, 1985). However, Young (2010) asserted that mainstream cognitive skills programmes had limitations, due to the programmes not being suitable for those with ID or mental health problems.

Relatedly, Clarke, Simmonds and Wydall (2004) reported that from a delivery perspective of the cognitive skills programmes (ETS and R&R), programme staff reported that a limitation of manualised programmes was that they did not meet the needs of all participants, especially those whose needs and abilities fell outside the 'norm'. Further, programme staff and participants reported the need for an adapted programme for prisoners with ID.

In addition, Sainsbury (2008) stated that mental health problems may impede access to and engagement in offending behaviour programmes (OBPs). Some of these factors include motivation and willingness of participants to change their behaviour, high drop-out rates, offenders may not be ready to cope with the emotional issues raised, programmes may be too demanding for participants, and some offenders may find it difficult to understand the programme's content (e.g. due to low cognitive ability).

Young (2010) stated that the future development of offending behaviour interventions have responded to the 'What Works' perspective and this shift in current thinking. This has led to the revision of R&R and the development of the Reasoning and Rehabilitation Mental Health Programme (R&R2MHP; Young & Ross, 2007), which is tailored to meet the needs of MDOs. However, compared with empirical studies involving non-mentally disordered offenders, there are comparatively fewer investigations demonstrating the effectiveness of cognitive skills programmes (i.e. R&R) with offenders with serious mental illness in secure hospitals (Kolla & Hodgins, 2013; Sainsbury, 2008).

Furthermore, Lindsay and Michie (2013) report that given the fact that offenders with ID have deficits in cognitive and reasoning skills; it is surprising that these developments have not extended their application to this field. Hence, there being very few social problems solving programmes designed for offenders with an ID and a dearth of research in this area.

There has also been some progress in the development of risk assessment tools for MDOs and ID offenders to help evaluate clients' progress in treatment and rehabilitation (Taylor & Lindsay 2010). There are a few measures that have been specifically developed for this group, for example the modified version of the Novaco Anger Scale and Provocation Inventory, (NAS-PI; Novaco & Taylor, 2004). Further, there is empirical support to suggest that with some careful adaptations to some of the items, on the Historical Clinical Risk Management-20 (HCR-20; Webster, Douglas, Eaves & Hart, 1997) these tools can be used with this population (Boer, Frize, Pappas, Morrissey, & Lindsay, 2010). As more tools are being developed for this population, it is vital that the reliability and validity of these tools are assessed.

1.5 Justification for thesis

The main aim of this thesis is to examine the effectiveness of social problem solving programmes with MDOs and ID offenders in secure hospital settings. As discussed, the factors predictive of offending behaviour in MDOs and ID offenders are often the same as those in the general offending population. However, research has suggested that mainstream interventions are not accessible to these populations. Thus, cognitive skills programmes have been developed to meet the specific needs of MDOs in secure settings, and empirical studies to assess the effectiveness of such programmes is slowly emerging. However, social problem solving programmes for ID offenders in secure hospitals is limited, and there is much scope for further research in this area to determine the efficacy of these interventions.

Specifically, MDOs and ID offenders are detained in hospital for treatment. Thus, it is important to establish whether current existing social problem solving groups are effective with MDOs and ID offenders, whether the new revised programmes (R&R2MHP) are effective, or whether new social problem solving programmes need to be devised specifically for this population in secure settings. In addition, it is important to conduct further research to understand exactly what makes them effective in reducing offender recidivism (Young, 2010) in this population. In doing so, it is envisaged that areas of further research will be highlighted, and it is hoped that the following four chapters will add to the literature in this area.

1.6 Overview of thesis

Chapter 1 the introduction provides an overview of the literature in relation to MDOs and ID offenders and social problem solving

programmes in secure settings. The difficulties for both these populations are discussed along with highlighting the limited research in this area.

Chapter 2 is a systematic review, which systematically reviewed the studies which have examined the effectiveness of cognitive-behavioural group interventions, which address social problem solving deficits in MDOs in secure settings. The main objective of this review was to determine whether there was a reduction in factors contributing to recidivism and/or in recidivism. Research with ID offenders in relation to social problem solving programmes in secure settings was insufficient to be able to include in this systematic review, despite the important clinical implications for this population. Thus, the focus was solely on MDOs here. A number of methodological issues were identified in the studies reviewed and recommendations for future research were made.

Chapter 3 is an empirical research study which employed qualitative methodology, specifically Interpretative Phenomenological Analysis (IPA) to explore the meanings ID offenders in a secure hospital attribute to their experience of a cognitive skills programme designed specifically for individuals with ID (Thinking Skills Offender Programme; TSOP), and their perceptions of its impact on factors contributing to their offending behaviour. One aim of this thesis is to gain insight into the sense ID offenders' make of their experience in the social problem solving programme in order to add to the existing evidence base, and to influence further research in the development of effective and appropriate programmes to meet the needs of this population.

Chapter 4 is a single case study which describes the assessment and treatment of an adult male violent offender with mild ID and Autistic Spectrum Disorder who undertakes the TSOP in a medium secure unit. The programme aims to address multiple risk factors contributing to the individual's violent offending behaviour, including developing his

emotional awareness and develop his social and interpersonal problem solving skills. Difficulties in assessing and treating patients in secure settings with ID and ASD using orthodox assessments and interventions were discussed.

Chapter 5 is a critique of the NAS-PI (Novaco, 2003; Novaco & Taylor, 2004) self-report measure, designed to assess anger and the risk of future violence. It is frequently used in the evaluation of group interventions for MDOs and ID offenders. It is critically evaluated in relation to its reliability, validity and its applicability to these populations in forensic secure services. Limitations of this tool are discussed along with recommendations for further research in relation to ID offenders.

Chapter 6 concludes the thesis by discussing the main findings of the chapters and linking this with previous literature, to explore the effectives of social problem solving skills with MDOs and ID offenders in secure settings in reducing factors associated with recidivism. Limitations of the research, clinical implications and recommendations for future research in this field are discussed.

CHAPTER 2

THE EFFECTIVENESS OF SOCIAL PROBLEM SOLVING PROGRAMMES IN FORENSIC SECURE SERVICES FOR REDUCING RECIDIVISM IN MENTALLY DISORDERED OFFENDERS: A REVIEW OF THE LITERATURE FOLLOWING A SYSTEMATIC APPROACH.

ABSTRACT

Aim: This systematic review aimed to assess the effectiveness of social problem solving programmes in forensic secure services for reducing recidivism in mentally disordered offenders (MDOs). MDOs in this review included male and female offenders with mental illness and/ or personality disorder.

Method: A comprehensive systematic approach was undertaken to source relevant studies. This comprised of an electronic search of the Cochrane Library and four bibliographic databases (MEDLINE, PsycINFO, EMBASE and ASSIA). Other sources were also searched including theses portals (DART: Europe E-Thesis Portal, Nottingham E-Theses and E-Theses Repository Birmingham) along with a hand search of the reference lists of retrieved systematic reviews and primary studies. Field experts were also contacted. Following this process, studies identified were checked against an inclusion and exclusion criteria and further quality assessment methods were employed.

Results: The number of hits was 4022 of which 518 were duplicates, 3452 were irrelevant studies. Of the 52 studies that remained, 38 studies were removed as a result of not meeting the inclusion and exclusion criterion and following quality assessment, leaving a total of 14 studies to

be included in this review. These studies were critically appraised and synthesised.

Conclusions: The findings suggest that MDOs can benefit from taking part in social problem solving skills programmes and that such groups are effective in changing thinking styles, enhancing social problem solving skills, and reducing antisocial behaviour. However, cognitive skills programmes may not meet the needs of all patients (i.e. patients who present high levels of impulsivity, poor behaviour control and anti-social and psychopathic traits). A number of methodological issues were identified in the studies reviewed and recommendations for future research included the need for more randomised controlled trials, follow-up of studies and development in assessments.

1. INTRODUCTION

The numbers of male and female mentally disordered offenders (MDOs) detained and admitted to psychiatric hospitals continue to increase. For example, at the end of October 2016 there were 4690 MDOs detained in hospital in comparison to 4618 in October 2015 (National Offender Management Service, 2016). Further MDOs are at increased risk of committing violent crimes (Brennan, Mednick & Hodgins, 2000) and reconviction rates suggest that within 5 years of release 15% of MDOs will re-offend (Ministry of Justice, 2008). Therefore, with the increased occupation of forensic inpatient beds by MDOs (Rutherford & Duggan, 2007), and the risk of re-offending, there is an increased demand for evidence based treatments to reduce antisocial behaviour with the aim to alleviate pressure in this population (Rees-Jones, Gudjonsson & Young, 2012; Yip, Gudjonsson, Perkins, Doidge, Hopkin, & Young, 2013).

Cognitive behavioural therapy (CBT) has consistently been validated as an effective strategy for offender rehabilitation in general (McGuire, 1995). Research suggests that CBT has been successfully used with female MDOs (Jotangia, Rees-Jones, Gudjonsson, & Young, 2015) and male MDOs. For example, Knabb, Welsh and Graham-Howard (2011) stated that multiple studies have shown that CBT is efficacious for MDOs in terms of improved cognitive skills (Hodel & West, 2003) and a reduction in psychopathological symptoms (Timmerman & Emmelkamp, 2005). Furthermore, the efficacy of CBT is also supported in personality disordered populations (Huband, McMurran, Evans & Duggan, 2007). Hence, most effective rehabilitation programmes are based on a cognitive-behavioural model (McGuire, 2002) and are most likely to reduce re-offending (Lipsey, Landenberger & Wilson, 2007).

In the prison service, a number of CBT based programmes have been devised that attempt to reduce the rates of re-offending through cognitive

skills training (Hollin & Palmer, 2009), and to change the criminogenic thinking of offenders (Tong & Farrington, 2006), as research suggests that offenders either lack or have poor cognitive and social skills (Porporino, Fabiano & Robinson, 1991).

The most widely run accredited programmes in the prison service have been the 36-session Reasoning and Rehabilitation programme (R&R; Ross, Fabiano & Ewles, 1988; Ross, Fabiano & Ross, 1986) and 22-session Enhanced Thinking Skills programme (ETS; Clark, 2000). ETS was modelled on the R&R programme, thus they have many features in common. The key target areas for ETS and R&R include self-control and self-management; cognitive style (including rigid/inflexible thinking); interpersonal problem solving; social perspective taking; emotional management; assertiveness and social interaction; moral reasoning; and critical reasoning (Blud & Travers, 2001); values that are required for pro-social competence and are antagonistic to anti-social behaviour (Antonowicz & Parker, 2012).

In the United Kingdom, the findings from prisons regarding the ETS and R&R programmes' efficacy in reducing recidivism has been varied (Tapp, Fellowes, Wallis, Blud & Moore, 2009). However, R&R is supported by an international evidence base (Young, Chick & Gudjonsson, 2010) and evaluations of the R&R programme in many countries amongst different types of offenders in both community and institutional settings demonstrate that it has been successful in reducing recidivism (Antonowicz & Parker, 2012).

For instance, a meta-analysis of 16 evaluations of R&R showed a 14% decrease in re-offending for R&R participants compared with controls when delivered in institutional settings and a 21% reduction when delivered in community settings (Tong & Farrington, 2006). Whereas, in a previous meta-analysis (Pearson et al., 2002), a 26% decrease in

recidivism for R&R programme participants compared to controls was found.

Accumulated evidence suggests that MDOs may also benefit from R&R programmes (Clarke, Cullen, Walwyn, & Fahy, 2010), as Bonta, Law and Hanson (1998) suggests that the criminogenic needs of MDOs are the same as those of offenders without mental illness. These include pro-criminal thinking style (Morgan, Fisher, Duan, Mandracchia & Murray 2010); social problem solving deficits (McMurran, Egan, Richardson, & Ahmadi, 1999) and MDOs criminal histories are similar to offenders with anti-social personality disorder (Hodgins & Cote, 1993).

McGuire (2000) reported that cognitive skills programmes have not been widely used with MDOs. However, a more recent survey of treatment provision in medium secure settings (Davies & Oldfield, 2009) included R&R, ETS and social problem solving groups (D'Zurilla & Nezu, 1982) to be part of treatment delivery. Rees-Jones et al. (2012) reported that a number of uncontrolled pilot studies indicated that ETS and R&R were effective in improving thinking styles and social problem solving in MDOs (Donnelly & Scott, 1999; Tapp et al., 2009). However, Yip et al. (2013) argued that these programmes have a high treatment drop-out rate and may not be designed to be responsive to meet the complex needs of MDOs.

The Risk Need Responsivity (RNR) model suggests that structures and targeted programmes should be delivered with the aim to match content and pace of treatment with specific offender characteristics (Andrews & Bonta, 2010). In line with the RNR model, a new and shorter versions of the original R&R programme was developed, the Reasoning and Rehabilitation Mental Health Program (R&R2MHP; Young & Ross, 2007) to tailor more specifically to the needs of MDOs (Young, Chick & Gudjonsson, 2010).

Unlike the original 36-session R&R programme, R&R2MHP requires 16, ninety minute sessions delivered over 5-6 weeks (Antonowicz & Parker, 2012). R&R2MHP is also supplemented by individual sessions provided by a mentor to help improve completion rate and to support patient to rehearse and consolidate learning and to transfer skills into daily activities (Yip et al., 2013). Further the programme is unique in its inclusion of a module that focusses on cognitive impairments, for example attention, memory and planning. For MDOs, these skills are likely to be essential precursors to subsequent offence-related work and rehabilitation; to improve pro-social behaviour and to effectively engage in offending behaviour programmes (Young, Chick & Gudjonsson, 2010).

A number of small scale evaluations have been conducted of the R&R2MHP and other cognitive skills programmes and preliminary findings suggest the feasibility and effectiveness of these interventions with MDOs (Cullen et al., 2012a; Yip et al., 2013). Cullen et al. (2012b) reported that the results were encouraging and that MDOs who completed the programmes showed improvement in problem solving ability; coping skills; criminal attitudes and a reduction in disruptive and criminal behaviour (Ashford, Wong, & Sternbach 2008). However, Tapp et al. (2009) argued that further in-depth research is needed to examine the impact of cognitive skills programmes on different groups of offenders within secure hospital settings.

The dearth of research has highlighted, interventions that are generally based on cognitive behavioural principles, such as a problem solving approach now play a significant part in the service provided for MDOs. However, the effectiveness of such programmes in forensic mental health settings is not well established (Rees-Jones et al., 2012). Relatedly, Long, Fulton and Hollin (2008) reported that there were even fewer reports in the literature about such programmes for women in secure settings and

the feasibility and effectiveness of offending behaviour programmes in female MDOs was yet to be established (Jotangia et al., 2015).

1.1 Existing reviews

Preceding this review, preliminary searches were conducted to establish relevant existing systematic reviews using the Cochrane and Campbell Collaboration Libraries, Medline, Google Scholar and E-theses portals. One systematic review was found alongside two unpublished theses.

The systematic review by Duncan, Nicol, Ager and Dalgleish (2006) was the first systematic review to examine the efficacy of various different structured group interventions with MDOs. The authors searched a number of databases (CINAHL, EMBASE, MEDLINE, PsycINFO, Cochrane library and the National Research Register) and sought papers published between 1980-2002. They reviewed 20 studies which were broken down into four different types of interventions that were administered to MDOs. A majority of these interventions were based on a CBT approach but not all. These included, problem solving, anger/aggression management, self-harm and other. The studies included male and female participants, however, the seven studies in the problem solving skills intervention were of male participants only. They found evidence for the efficacy of structured group interventions for MDOs; in particular they found the moderate to high effect sizes for problem solving and anger and aggression management.

However, Duncan et al. (2006) highlighted a number of methodological variations between studies, suggesting that findings should be treated as preliminary. These limitations include small sample sizes, convenience sampling methods, several studies lacking a comparison group and lack of robust participant randomisation. Duncan et al. (2006) emphasises that the research is very recent and that the research base remains immature.

Relatedly, the Centre for Reviews and Dissemination (2013) critically assessed the reliability of Duncan et al.'s (2006) review and the conclusions drawn. They stated that there was some evidence in support of structured group interventions for MDOs which focus on problem solving and anger/aggression management. However, the publication did not report review methods (i.e. how the papers were selected for the review; how data was extracted; or how many reviewers performed the selection). Nor did the review provide inclusion criteria for the study design or inclusion criteria for the outcomes. Thus, it concluded because of the poor reporting of review methods it made it difficult to assess the potential for reviewer error and bias, which made the reliability of the author's conclusions unclear.

The two unpublished theses (Rees-Jones, 2011; Tyler, 2012) like Duncan et al. (2006) examined the effectiveness of offending behaviour group treatments with MDOs. However, they only reviewed groups based on a cognitive-behavioural model.

Rees-Jones (2011) searched several databases (EMBASE, MEDLINE, PsycINFO, Cochrane library, Science Direct and Web of Science) and sought papers published between 1980-2009. A systematic search was carried out of 18 experimental studies that met the inclusion/exclusion and quality criteria. Four intervention types were reported (problem-solving skills; anger management training; relapse prevention; and other, which included interventions such as self-esteem enhancement). The study included male participants only. He suggested that there was some evidence for the effectiveness of cognitive-behavioural interventions with MDOs. However, recommend that more rigorous and high quality research needed to be conducted in order for more robust conclusions to be made due to the differences in methodologies between studies. Thus, he suggested that the review findings must be viewed with caution.

Tyler (2012) searched a number of databases including EMBASE, MEDLINE, PsycINFO, Cochrane library, and Campbell collaboration. The search was limited to publications found between 1980-2011. The author systematically examined 9 studies, which included male MDOs participants in a forensic hospital setting. Three intervention types were reported including problem-solving skills training; anger and aggression management and psychoeducational. She concluded that interventions based on cognitive-behavioural principles were effective with adult male MDOs and had the potential to improve problem solving; social-cognitive skills, social adjustment, hostile and aggressive behaviour, and awareness of illness in order to reduce anti-social behaviour. Tyler (2012) also acknowledged the methodological limitations of the studies examined in relation to the varied number of outcome measures used, making comparisons between studies difficult; varied length of treatment delivery and reported carrying degrees of bias in studies.

1.2 Current review

The existing reviews have reported some positive outcomes of cognitive-behavioural structured offending behaviour group interventions with MDOs. In particular, they indicated improved problem solving ability in MDOs through undertaking such programmes. However, all three previous reviews examined studies that included generic structured group interventions with MDOs and the interventions that examined problem solving ability were all with male participants.

The current review however, included studies using cognitive-behavioural structured group interventions that solely addressed social problem solving deficits in MDOs, and examined studies that included both male and female participants. It was also evident from the scoping search that there were a number of new studies published in this area, in particular studies evaluating the R&R2MHP; new version developed for MDOs, as

well as studies being conducted with female MDOs. The current review is therefore deemed to be a creditable addition to existing literature in the area of rehabilitation of MDOs.

1.3 Aims and objectives

The review aimed to systematically review the studies which have examined the effectiveness of cognitive-behavioural group interventions, which address social problem solving deficits in MDOs. The main objective of this review was to determine whether there was a reduction in factors contributing to recidivism and/or in recidivism.

2. METHOD

2.1 Sources of literature and search strategy

An initial scoping exercise was conducted in July 2013 in order to determine the feasibility of the review. Following this to establish relevant systematic reviews and primary research studies, a comprehensive systematic approach was undertaken using the subsequent search strategies:

2.11 Search of electronic databases and gateways:

The following databases were searched:

1. Cochrane Collaboration Library (all years on 22nd February 2016)
2. OVID: PsychINFO (1980 to February week 4 2016)
3. OVID: Medline (1980 to February week 4 2016)
4. OVID: EMBASE (1981 to February week 4 2016)
5. ASSIA: Applied Social Science Index and Abstract (1987-2016)

These databases were accessed electronically and each database utilised a uniform approach. The same search terms were applied to all of the databases; however, modifications were made to meet the requirements of each of these databases. To ensure that all relevant studies were identified and not lost due to improper coding, subject headings, keywords and exploded search terms were used. Further, individual databases were searched separately using the unique set of commands for each, for example truncation/wildcard options were used to identify all versions of a term.

The following search terms were used:

(forensic*) OR (secure setting*) OR (secure hospital*) OR (psychiatric) OR (offend*) OR (patient*) OR (inpatient*) AND (mental health) OR (mental disorder*) OR (mental illness*) OR (personality disorder*) AND (problem solving) OR (thinking skills) OR (Reasoning and Rehabilitation) OR (Enhanced Thinking Skills) OR (cognitive behavio*) OR (CBT) OR (cognitive deficits) OR (cognitive skills) OR (treatment need*) OR (treatment outcome*) OR (effect*) AND (group intervention) OR (program*)

See Appendix A for the search syntax, as applied to OVID PsychINFO, Embase and Medline databases.

2.12 Contact with field experts:

Two field experts (Professor Mary McMurran & Vincent Egan) were contacted via e-mail (18th February 2016) in relation to their knowledge of social problem solving programmes with MDOs in secure settings, and to identify further references/studies that could potentially be considered for this review. Both experts responded immediately.

2.13 Hand search of reference lists:

Reference lists of relevant books, studies and systematic reviews were hand searched (6th & 7th April 2016) to identify further studies that met the inclusion criteria.

2.14 Hand search of key journals:

Three journals were hand searched (9th March 2016) for further relevant studies in addition to assessing the reliability of the electronic search. These included Criminal Behaviour and Mental Health; The Journal of Forensic Practice; Journal of Forensic Psychiatry and Psychology (all volumes: 1998 to March 2016).

2.15 Grey literature:

The search was supplemented by a review of the grey literature (7th March 2016), which included Department of Health (DoH), Conference papers and unpublished dissertations via E-Theses portals (DART: Europe E-Thesis Portal; Nottingham E-Theses; E-Theses Repository Birmingham). Google Scholar search engine was utilised for verification of articles retrieved and to detect further relevant literature (8th March 2016).

2.2 Selection of studies

All the identified studies were manually organised by the author. First, duplicates were excluded, second titles and abstracts were assessed and studies which were clearly irrelevant were eliminated. The remaining studies were then all subjected to the inclusion/exclusion criteria, (see Appendix B), which was created following the scoping of the literature. The inclusion/exclusion criteria comprises of a PICO, as shown in Table 1 below:

	Inclusion
Population	MDOs (Inc. PD), male or female aged 18 and over
Intervention	Cognitive-behavioural based group interventions to address social problem solving deficits in offenders.
Comparator	Control group but not a requirement
Outcomes	Reconviction data, psychometric assessments, self-report and observational measures
Study Design	Randomised Control Trials (RCTs), quasi-experimental studies, cohort studies, case control studies
Context	High, medium, low secure hospitals

Table 1: *Inclusion criteria*

As part of this process A Study Eligibility Form (Appendix C) was developed to establish whether or not the studies met the inclusion/exclusion criteria. Full text articles were also obtained for all remaining studies (downloaded/ requested via the library) to help determine the outcome. However, one dissertation was unobtainable. Further, to ensure that relevant studies were not discarded, 20% of the remaining articles were reviewed by a second reviewer (supervisor).

Studies that fulfilled the above criteria were included for the next stage of the process (quality assessment).

2.3 Quality Assessment

The remaining studies that satisfied the inclusion criteria were appraised on their methodological quality by using quality assessment checklists. Two separate checklists were developed, one for experimental studies and the other for cohort studies. These were adapted from a number of sources, and assessed for selection and sampling bias, performance bias, measurement and detection bias, attrition bias and bias in statistical

analysis, which could potentially effect the validity of the study (See Appendix D and E).

The quality assessment was undertaken by the author and to ensure inter-rater reliability, a second reviewer (supervisor) assessed the quality of 30% of the studies. Any differences identified in scores were discussed and reasons for scores given, before reaching a final agreement.

A structured point system was employed to assess the quality of the studies (Kmet, Lee & Cook, 2004). This encompassed two points being given if the full criterion of an item was met (Y); one point given if only part of the criterion was met (P); no points given if the criterion was not met (N). Unclear (U) responses were not included in the total score. The overall quality score for each of the studies was established by adding up all the points awarded for each item on the checklist and then was translated into a quality percentage.

The total scores for both checklists were out of 50. However, if specific items were not applicable to a particular study design (i.e. duration of follow-up if there was no follow up conducted) they were marked as "n/a" and were excluded from the calculation of the summary score. The greater the score the better the quality of the study.

Scores were converted to percentages. Studies which scored below 50% were excluded from the review (see Appendix F of all the excluded studies and reasons given). Those studies which achieved a lower quality score were still considered to be important to include in this review because they met the inclusion criteria and because social problem solving interventions with MDOs in secure settings is still a developing area. A number of studies scored highly (above 70%).

A flow diagram which illustrates the study selection process and details the number of studies included at each stage can be seen in figure 1 below. Eighteen publications comprising of 14 studies (two of the studies had two further publications each, which used the same sample as the original study) met the inclusion criteria and were then quality assessed.

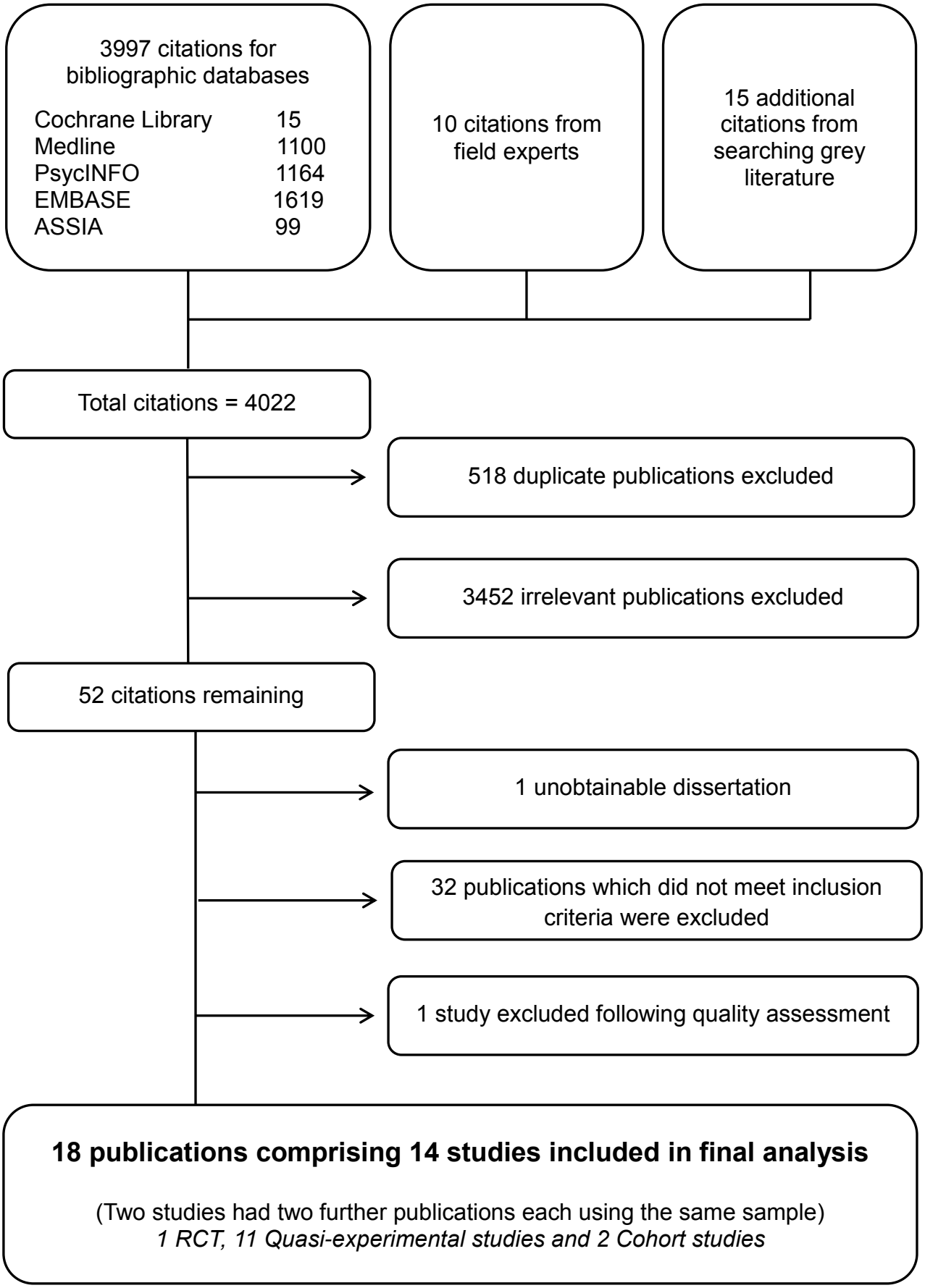


Figure 1: *Flowchart displaying search results and process of study selection*

2.4 Data Extraction

All relevant data was extracted from the 14 studies included in the final analysis using a data extraction form (Appendix G). This form was used to minimise data extraction bias by ensuring reliability and consistency of data collection across all studies (Higgins & Green, 2011). The form allowed for information to be extracted in relation to study and participant characteristics, intervention and setting, outcome data/results, type of analysis used in the study, confounding variables and limitations of the study. Any information that was unclear from the articles was recorded as unknown. This was due to the limited time frame in which to conduct the review, which did not allow for authors to be contacted and for information to be clarified.

3. RESULTS

Figure 1 illustrates that a search of electronic databases yielded 3997 hits. A further 10 studies were located from contacting field experts, and 15 additional publications were located via searching e-theses portals and hand searching of relevant journals, books and reference lists. This provided a total of 4022 articles, of which, 518 duplicates were removed and a further 3452 were found to be irrelevant and were excluded from the review. Of the remaining 52 studies, 1 dissertation was unobtainable, 32 publications did not meet the inclusion/exclusion criteria and, one study was excluded following quality assessment.

The remaining eighteen publications comprised of 14 studies (two studies had two further publications each using the original sample) and met the inclusion criteria and achieved a quality assessment score of 50% or above. Thus, 14 primary studies were included in the review.

Tables 2 and 3 display the aims, description of intervention employed, setting and participant information of the 14 included experimental and cohort studies. Tables 4 and 5 show the characteristics, outcome measures used, findings, strengths and limitations of the 14 included experimental and cohort studies.

Table 2: *Aims, description of intervention, setting and participant information of the included Experimental Studies*

Author(s) & Date	Aims of study	Description of programme & Duration	Setting, Location & Security Level	Sample size	Mean Age	Gender	Diagnosis	Number of offences & offence type
Clarke, Cullen, Walwyn, & Fahy (2010)	Quasi-experimental study to determine: 1) whether Reasoning and Rehabilitation (R&R) programme could be feasibly implemented in a MSU; 2) whether participation in the R&R programme improves social problem-solving skills, coping responses and criminal attitudes.	R&R programme is based on a cognitive behavioural model; it ran over 36 two-hour sessions.	Two Medium Secure Units in the UK.	35	37.4 (SD = 10.1)	Male	Majority diagnosed with schizophrenia (N =23; 72%), seven (22%) with schizoaffective disorder and two (6%) with bipolar disorder.	States history of offending but does not report number or types of offences.
Cullen, Clarke, Kuipers, Hodgins, Dean, & Fahy, (2012a; 2012b) Cullen, Soria, Clarke, Dean, & Fahy (2011)	RCT to identify whether MDO's participation in R&R programme was associated with changes in social problem-solving, criminal attitudes, blame attribution, anger experience and empathy; to examine whether changes are maintained 12 months following treatment. To investigate whether MDO's participation in R&R programme reduced violence and antisocial behaviour during treatment and at 12 months post-treatment. To determine which factors predicted treatment drop-out from the R&R programme.	Cognitive-behavioural R&R programme covers eight modules: 1) problem solving ; 2) assertiveness skills ; 3) social skills ; 4) negotiation skills ; 5) creative thinking ; 6) emotion management ; 7) values reasoning ; and 8) critical reasoning. Units were given the flexibility to run either the original R&R programme (Ross & Fabiano, 1985) or the revised programme (Porporino & Fabiano, 2000) due to their similarities; 36 two-hour sessions were held either twice or three times weekly.	Six Medium Secure Units in the UK.	84	35.4 (SD = 10.0)	Male	Schizophrenia 69 (82%); Schizo-affective disorder 10 (12%); Other psychotic disorder 5 (6%); Antisocial personality disorder 37 (44%); Psychopathy: PCL: SV≥16 = 16 (20%).	Median no. of criminal convictions = 5 (0-31); offence type not reported.
Donnelly & Scott (1999)	The quasi-experimental study aimed to evaluate the effectiveness of R&R programme with a group of MDOs and to measure any changes in self-control, problem-solving abilities, self-esteem, social comparison and locus of control.	R&R programme addresses cognitive deficits and distortions in the areas of self-control, thinking style, locus of control and problem-solving. The programme covers the following areas: 1) problem solving (9 sessions) 2) social skills (3 sessions) 3) negotiation skills (3 sessions) 4) management of emotions (2 sessions) 5) creative thinking (11 sessions) 6) values enhancement (10 sessions)	Two wards in the State Hospital; Scotland, UK.	24	R&R group = 32.6 (SD= 2.54); Control group = 30.3 (SD= 4.49)	Male	Schizophrenia -17; Alcohol dependence syndrome – 1; Organic Personality Disorder – 2; Depressive disorder – 1.	Murder – 9; Culpable homicide – 1; Attempted murder – 2; Assault – 9.

Author(s) & Date	Aims of study	Description of programme & Duration	Setting, Location & Security Level	Sample size	Mean Age	Gender	Diagnosis	Number of offences & offence type
		7) critical reasoning (5 sessions) 8) skills in review (3 sessions) 9) cognitive exercises (6 sessions) 54 sessions including an introductory and feedback session; delivered over five months for two hours; two sessions per week.						
Hodel & West (2003)	Quasi-experimental study to examine the effects of a cognitive training programme developed for treating mentally ill offenders with treatment-resistant schizophrenia.	In vivo Training of Goal-directed Actions' (IVTA) focuses on and challenges cognitive deficits. Consists of three parts, 1) Focussing skills; 2) Organising thoughts and 3) Goal-directed actions. There were 20 sessions over 10-weeks; sessions ran twice a week and lasted 45 minutes.	State Hospital (USA). Security level not stated.	15	40.5 (SD = 10.5)	Male	All patients had a diagnosis of treatment-resistant schizophrenia.	All patients had committed at least one offence. Offence type not reported.
Jotangia, Rees-Jones, Gudjonsson, & Young (2015)	Quasi-experimental study to evaluate the acceptability and efficacy of delivering the Reasoning and Rehabilitation Mental Health Program (R&R2MHP; Young and Ross, 2007) to female MDOs. Hypothesis 1: Group retention would be favourable compared with the 50% rate previously reported in males (Cullen et al., 2012). Hypothesis 2: Group participants would show greater improvement at outcome on all measures compared with treatment as usual (TAU) controls.	R&R2MHP is a revised version of the 36-session R&R program and aims to reduce anti-social attitudes and behaviour and improve cognitive and problem-solving skills. consists of five treatment modules: 1) a neurocognitive module 2) a problem-solving module 3) an emotional control module 4) a social skills module 5) a critical reasoning module It is integrates group and individual treatment (staff meet patients between group sessions); sixteen 90 minute sessions run weekly (*some groups were mixed male/female*).	Six secure forensic units in the UK. (5 medium secure units and one low secure unit).	38	R&R2MHP group = 38.94 (SD= 9.36); Control group = 37.90 (SD= 9.23)	Female	All participants had a diagnosis or a history of severe mental illness: psychotic disorders (n= 36; 95%) and mood disorders (n= 2; 5%).	Mean no. of previous convictions for R&R2MHP group = 4.00 (7.15); control group = 3.70 (5.27). Index offence homicide and violence (n= 32; 84.2%); arson (n=6).
Long, Fulton, Dolley, & Hollin (2011)	Firstly to examine the effectiveness of the social problem-solving group intervention. Secondly, to examine the differences between completers and non-completers of group treatment.	Stop and Think problem solving therapy, adapted from Nezu, Nezu, D'Zurilla (2007) and McMurran et al., (1999). The content of group sessions are: 1) Introduction to the programme 2) Introduction to social problem-solving 3) Styles of problem-solving and effectiveness 4) Step 1 – Attitude 5) Step 2 – Define the problem 6) Step 3 – Alternatives 7) Step 4 – Predict	Two wards in a medium secure unit in the UK.	24	32.6 (SD = 9.22)	Female	Dual diagnosis: primary diagnosis was PD (emotionally unstable or with mixed features) (n=18, 75%), schizophrenia, schizoaffective and delusional disorder (n=5, 21%) and bipolar disorder	Index offence: major violence (n=10, 42%); arson (n=6, 25%); assault, grievous bodily harm (GBH) and actual bodily harm (ABH) (n=5, 21%). Three patients had no index offence.

Author(s) & Date	Aims of study	Description of programme & Duration	Setting, Location & Security Level	Sample size	Mean Age	Gender	Diagnosis	Number of offences & offence type
		8) Step 5 – Try out 9) Further practice 10) Review and application Consists of ten 90-minute sessions; delivered weekly; proceeded by an orientation session and a 30 minute post group individual session.					(n=1, 4%). All of the women had a history of self-harm and emotional dysregulation.	
McMurran, Egan, Richardson, & Ahmadi (1999)	To present the outcomes of 'Stop & Think', a pilot social problem-solving programme based on pre and post measures.	Stop & Think, aimed to develop patients' abilities to define problems, produce and analyse a range of solutions, and select and implement an effective action plan. The seven key questions: 1) orientation – 'bad feelings?'; 2) problem definition – 'what is my problem?'; 3) goal setting – 'what do I want?'; 4) generation of alternatives – 'what are my options?'; 5) decision making – 'what are the advantages and disadvantages of each option?'; 6) action – 'what is my plan?; 7) evaluation – 'how did I do?'. Consisted of six, one and a half hour sessions over 6 weeks.	Medium Secure Unit in the UK.	9	28.78 (SD = 6.69)	Male	Classified legally as suffering from mental illness or psychopathic disorder.	Not reported.
Rees-Jones, Gudjonsson, & Young (2012)	The quasi-experimental study aimed to evaluate the effectiveness of Reasoning and Rehabilitation Mental Health program (R&R2 MHP) among MDOs. It was hypothesized that group completion would be favourable compared with the 50% rate previously reported (Cullen et al., 2012) and that group participants would show greater improvement at outcome than waiting-list controls.	R&R2 MHP is a structured, manualised programme that has been adapted to be responsive to the needs of MDOs. It consists of five treatment modules: 1) neurocognitive, 2) problem solving, 3) emotional control, 4) Pro-social skills, 5) critical reasoning; Including guided individual mentoring between group sessions. Consists of sixteen, 90-minute sessions running weekly.	10 secure forensic units in the UK (six medium secure and four low secure units).	121	R&R2MHP group = 34.14 (SD= 8.53); Control group = 35.56 (SD= 10.86).	Male	All participants had a diagnosis or history of severe mental illness: psychotic disorders (n = 106; 88%), and mood disorders (n = 15; 12%).	Mean no. of previous convictions for R&R2MHP group = 7.28 (13.47); control group = 8.96 (13.33). Index offences: homicide, sexual violence, use of firearms (n = 77; 64%); sexual (n = 20; 17%); financial (n= 11; 9%); arson (n = 7; 6%); drug-related (n = 5; 4%) and stalking (n = 1; 1%).

Author(s) & Date	Aims of study	Description of programme & Duration	Setting, Location & Security Level	Sample size	Mean Age	Gender	Diagnosis	Number of offences & offence type
Tapp, Fellowes, Wallis, Blud, & Moore (2009)	To evaluate the effectiveness of an Enhanced Thinking Skills (ETS) programme; to describe the characteristics of participants who complete the programme compared with non-completers; to examine whether there are significant changes in thinking style based on outcome measures.	ETS a cognitive behavioural social problem solving group intervention. Course modules included: 1) interpersonal problem solving; 2) self-control; 3) perspective taking; 4) moral reasoning 5) critical reasoning. 20 sessions, for 2 hours, twice a week. Between sessions, individual support was offered if required or requested.	High secure hospital setting in the UK.	83	Completers 39 (SD = 9.8) Non-completers 38 (SD = 8.9)	Male	Mental illness and Mental illness and/ or Psychopathic Disorder.	Index Offence: Homicide, other violence, sexual, arson, kidnap/false imprisonment, other (e.g. burglary, robbery). One non-completer had no index offence.
Yip, Gudjonsson, Perkins, Doidge, Hopkin, & Young (2013)	This quasi-experimental study aimed to evaluate the effectiveness of the Reasoning and Rehabilitation program adapted for offenders with severe mental illness (R&R2 MHP).Research questions: 1) How successful is the program in terms of retention of participants in a high secure setting? 2) Is the program effective in patients detained in a high secure setting?	R&R2MHP the cognitive-behavioural intervention consists of 5 modules: 1) a neurocognitive model; 2) a problem-solving module; 3) an emotional control module; 4) a social skills module; 5) a critical reasoning module; It combines group and individual treatment; sixteen, 90-minute sessions which run on a weekly basis.	High secure hospital setting in the UK.	59	R&R2MHP group = 37.93 (SD= (10.10); Control group = 38.72 (SD= 9.70).	Male	All participants had a history of severe mental illness, most commonly psychotic disorders.	Mean no. of previous convictions for R&R2MHP group = 10.47 (14.45); Control group = 14.00 (20.30). Index offence homicide (37%), sexual violence (24%) and assault (39%).
Young, Chick, & Gudjonsson (2010)	Quasi-experimental study aimed to determine whether Reasoning and Rehabilitation for MDOS (R&R2M) is feasible to run and effective in treating patients in high and medium secure settings; 1) by exploring non-start and completion rates; 2) to evaluate whether participants who completed the group would demonstrate a greater improvement on outcome measures compared with controls.	R&R2M is a revision of the R&R training programme, tailored to the needs of MDOs. Course modules included: 1) neurocognitive skills, 2) interpersonal problem-solving, 3) emotional control, 4) social skills, 5) critical reasoning. Participants additionally met with their 'PAL' for 20–30 minutes between sessions; sixteen 90-minute sessions.	Two secure forensic units in the UK. (One high secure unit and one medium secure unit).	70	R&R2M group = 36.4 (SD =10.6); Control group = 35.9 (SD= 11.5).	Male	MDOs detained under the Mental Health Act (1983); patients in high secure more likely to have Personality Disorder (PD). No further information provided.	Patients must have at least one conviction of violent behaviour. No further information provided.
Young, Hopkin, Perkins, Farr, Doidge, & Gudjonsson (2012)	This quasi-experimental study aimed to evaluate the Reasoning and Rehabilitation ADHD program (R&R2 ADHD) among patients with severe personality disorder (PD). Hypothesised that group participants would show greater	R&R2 ADHD (Young & Ross, 2007) is a CBT programme for youths and adults with ADHD symptoms and antisocial behaviour; a revised edition of the 36-session R&R program. It consists of five treatment modules: 1) neurocognitive,	DSPD Unit at a High Secure Hospital, in the UK.	31	R&R2ADHD group = 43.37 (SD= 8.81); Control group =	Male	All participants had antisocial PD; comorbid conditions included borderline (48%); paranoid (39%); narcissistic	Mean no. of previous convictions for R&R2ADHD group = 23.75 (25.49); Control group =

Author(s) & Date	Aims of study	Description of programme & Duration	Setting, Location & Security Level	Sample size	Mean Age	Gender	Diagnosis	Number of offences & offence type
	improvement than waiting-list controls on outcome measures.	2) problem solving, 3) emotional control, 4) pro-social skills, 5) critical reasoning, The program integrates group and individual treatment, and consists of fifteen 90-min sessions, running weekly.			36.93 (SD= 8.93).		(26%); histrionic; avoidant PD, pedophilia, Asperger's syndrome, compulsive disorder and ADHD.	19.00 (28.21). Index offence violence/ sexual violence (n= 28; 90%); robbery (n= 2); arson (n= 1).

Table 3: *Aims, description of intervention, setting and participant information of the included Cohort Studies*

Author(s) & Date	Aims of study	Description of programme & Duration	Setting, Location & Security Level	Sample size	Mean Age	Gender	Diagnosis	Number of offences & offence type
Kunz, Yates, Czobor, Rabinowitz, Lindenmayer, & Volavka, (2004) Yates, Kunz, Czobor, Rabinowitz, Lindenmayer, & Volavka, (2005) Yates, Kunz, Khan, Volavka, & Rabinowitz (2010).	STAIR (System for Treatment and Abatement of Interpersonal Risk) programme was administered to inpatients exhibiting aggressive or criminal behaviour. The authors report the results of a post discharge follow-up the completers group. Specifically, rates of rehospitalisation, re-arrest, post discharge substance abuse and compliance with treatment. To determine factors affecting patient's ability to complete the STAIR programme and to be discharged; a comparison of completes and non-completers. To determine whether the same variables predicted rehospitalisation and rearrests with additional follow-up years (six to 60 months) after completing STAIR.	STAIR a cognitive skills programme developed for inpatients with serious mental illness and a history of repeated aggression or crime, or both. It aims to break the cycle of repeated hospitalization and incarceration. Six cognitive skills are taught: 1) problem solving; 2) creative thinking; 3) Value enhancement; 4) social skills; 5) critical reasoning; 6) managing emotions; Has a behavioural reward structure for completion of each step; 72 sessions; each skill is taught over three to ten sessions for 45minutes, twice a week.	State hospital (USA). Security level not stated.	Total sample = 181 Completed and discharged = 90	Total sample: 37.5 (SD = 9.4) Completed and discharged: 38 (SD = 9.6)	Total sample: Males (164) Females (17) Completed and discharged: Male 76 (89%) and Female 9 (11%)	Total sample: Psychosis 143 (79%); Mood disorder 24 (13%); Substance abuse 125 (69%); Antisocial PD 82 (45%); Borderline PD 21 (12%). Completed and discharged: Psychosis 68 (80%); Mood disorder 14 (17%); Substance abuse 58 (68%); Antisocial PD 40 (47%).	History of aggression and crime. Mean no. of arrests for completers and discharged = 9.07 (8.5); Mean no. of arrests for violent crimes = 3.26 (3.33).
McMurran, Fyffe, McCarthy Duggan, & Latham, (2001)	To see if personality disordered offenders improved in social problem solving, at three and nine months following the completion of the 'Stop & Think' programme.	'Stop & Think!' a social problem solving group. Consists of seven steps: 1) orientation – 'bad feelings?'; 2) problem definition – 'what is my problem?'; 3) goal setting – 'what do I want?'; 4) generation of alternatives – 'what are my options?'; 5) decision making – 'what are the advantages and disadvantages of each option?'; 6) action – 'what is my plan?; 7) evaluation – 'how did I do?'. Delivered weekly.	Personality disorder unit (PDU) in a Medium Secure Unit in the UK.	14	27.95 (SD= 8.08)	Male	Various personality disorders.	Not reported.

Table 4: *Characteristics, findings, strengths and limitations of the included Experimental Studies*

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Clarke, Cullen, Walwyn, & Fahy (2010)	18 patients were recruited to the treatment group from one MSU; 17 control participants were recruited from the second MSU.	Control group treatment as usual (TAU); (n=17).	3 patients from the treatment group dropped-out (one returned to prison; one refused to attend; one experienced illness relapse). Data excluded from analyses.	Social Problem-Solving Inventory Revised-Short Form(SPSI-RS; D'Zurilla et al., 2002); The coping responses inventory (CRI; Moos, 1993); The crime pics II (Frude et al., 1994).	No	• Patients who completed R&R showed significantly improved problem solving ability; scoring higher on SPSI-R:S adaptive scales and lower on maladaptive scales than the control group. • R&R group also showed significant improvement in coping responses compared with the control group; obtaining higher scores on all CRI approach coping scales and lower scores on three of the avoidant scales. • However, reductions in criminal attitudes did not remain significant after controlling for multiple testing. • Only three patients dropped out the R&R group (only one due to illness relapse) suggesting that the R&R programme can be implemented in MSUs and is well tolerated by MDOs.	• Treatment and control group were well matched at baseline. • Bonferroni corrections were applied to minimise the risk of Type 1 errors • Outcome measures used were reliable and valid. • A research assistant blind to the study aims interviewed participants pre- and post-treatment to complete outcome measures. • Facilitators adhered to manual guidelines; sessions that were video-taped and reviewed were found to be delivered to a high standard. • Supervision was provided after every session.	• Small sample limits the ability to generalise findings to wider MDO population. • Non-randomised design presents the possibility of confounding variables. • Not clear whether the improvements on outcome measures assessed behavioural change. • Low prevalence of violent incidents in setting meant such behaviours could not be used as an outcome measure. • No follow-up conducted.	32/48 (67%)
Cullen, Clarke, Kuipers, Hodgins, Dean, & Fahy, (2012a; 2012b) Cullen, Soria, Clarke, Dean, & Fahy (2011)	Within each site participants were independently and individually randomly allocated to receive the R&R programme or treatment as usual (TAU). 44 patients were recruited to the treatment	Control group treatment as usual (TAU); (n=40).	2 patients from the treatment group dropped-out (one participant was transferred to prison and the other was deported from the UK); Of the 42 remaining participants allocated to receive R&R, 50%	Social Problem-Solving Inventory Revised-Short Form(SPSI-RS; D'Zurilla et al., 2002); The Crime Pics II (Frude et al., 1994); The Novaco Anger Scale (NAS; Novaco, 1994); External attribution subscale within the Revised Blame Attribution	Yes, 12-month follow-up	• R&R group showed significant improvements in the subscales of SPSI (impulsive/ carelessness style, avoidant style and total score) in comparison to the control group, and additional improvements at follow-up. • Post-hoc analyses of R&R completers showed improvements on two of the Crime Pics II subscales (general attitude and anticipation of offending), and additional improvements at follow-up.	• Random allocation in RCT design ensures that known and unknown person and environmental factors that may affect the outcome of the study are evenly distributed across groups; effects of participating and being assessed are controlled for; thus, differences in outcome between treatment and control group are actually caused	• Reduced statistical power was due to a small sample size which is likely to have impacted on the failure to find significant differences in post-hoc tests. • Multi-site recruitment meant heterogeneity was statistically difficult to account for. • Initially 23 % of referred patients refused to participate in the study. It is likely that these	42/50 (84%)

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	group; 40 participants were recruited to the control group. The programme was delivered to groups of five to eight patients.		(n= 21) were unable to complete it (patient initiated drop-out, n=14; illness relapse, n=3; absconsion prior program, n=1; cognitive impairments, n=1; excluded for disruptive behaviour, n=1; excluded for poor attendance, n=1).	Inventory (Gudjonsson & Singh, 1989); Perspective-taking subscale of the Interpersonal Reactivity Index (Davis, 1980)		• Only 50% allocated to receive R&R completed the programme. • *Study 2:* In comparison to the control group, R&R participation showed a reduction in verbal aggression and leave violations during treatment; reduction in verbal aggression was maintained at follow-up. • No differences found between the R&R or control group in the number of incidents of violence. • Post hoc analyses conducted on programme completers and non-completers showed that incidents of violence, verbal aggression, and leave violation during treatment were significantly lower in program completers; this was maintained for verbal aggression and substance use at follow-up. • *Study 3*: Psychopathy, ASPD, and recent violence appeared to be the strongest predictors of drop-out; thus, MDOs with the highest treatment needs were least likely to receive the full treatment programme. • RCT's can be conducted in MSUs. • Cognitive skills programmes delivered in MSUs can reduce forms of anti-social behaviour (e.g. disruptive behaviour, verbal aggression, leave violation). However, the programme may not meet the needs of patients who display high levels of impulsivity, poor behaviour control and anti-social and psychopathic traits.	by the treatment. • Potential for type 1 errors was controlled for statistically. • All outcome data were obtained via self-report questionnaires in the first study, therefore reducing the likelihood of interviewer bias. • Multi-site recruitment increased generalizability to MDOs in secure settings. • Follow-up conducted • Facilitators received training and supervision throughout by experienced professionals to ensure therapists adhered to the treatment manual; treatment sessions that were recorded and randomly selected were assessed using an objective rating scale. • Outcome measures used were reliable and valid. • Study was able to identify a range of potential predictor variables (e.g. demographic, behavioural and clinical factors).	patients were more antisocial and/or unwell; factors which may be associated with non-participation at follow-up. • Given that antisocial traits and psychotic symptoms may influence treatment response, thus there may be the possibility that non-response bias and attrition have led to an over-estimate of the effects of R&R in this sample. • Researchers were not blind to allocation • An intention-to-treat analysis was conducted. However, due to high drop-out rate in treatment group random allocation was lost; thus analyses were conducted to determine the impact of R&R in the subgroup of patients who completed the full programme.	

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Donnelly & Scott (1999)	12 patients from two wards who had been identified for further psychological treatment in relation to their offending behaviour were recruited to the treatment group; 12 control participants were recruited from the same two wards.	Control group treatment as usual (TAU); (n=12).	1 patient from the treatment group dropped-out (returned to prison); two patients from the control group dropped out (one transferred out of the hospital, and one was unable to complete the final assessment due to illness).	The Rosenzweig picture frustration (P-F) study (Rosenweig, 1978); The Means-End problem solving procedure (Platt & Spivack, 1975); The culture free self-esteem inventory, second addition (Battle, 1992); The Social Comparison Scale (Allan & Gilbert, 1995); The Nowicki Strickland Internal/ External Scale (Nowicki & Duke, 1974).	No	• A significant difference was found between the pre and post means on Rosenzweig P-F measure and the MEPS procedure within the R&R group; most individuals showed an improvement in managing frustrating social situations and in problem solving abilities. • Further analysis of Rosenzweig P-F scores showed no significant difference between groups. • No significant difference in the control group means over time. • No significant differences found within or between groups on measures of self-esteem, social comparison or locus of control. • No treatment or time effect evident from measures used. • The presence of a mental disorder and comorbid PD's did not appear to interfere with problem-solving abilities; those who completed the R&R programme demonstrated better cognitive abilities; thus indicating problem solving can be successfully taught to MDOs.	• Measures were administered to both groups at the same time pre-and post. • Group facilitators received formal training. • The same two nurses presented all the sessions allowing for consistency. • Consideration given to potential confounding factors including age, gender, criminal history).	• Possible medication effects were not controlled for. • Personality disorders (PD) not formally assessed; thus different PDs may show different treatment effects depending on their cognitive profiles. • Statistical tests used not reported • No follow-up to assess whether change has been maintained overtime. • Small sample size. • Reliability and validly reported for only some of the measures not all. • Did not control for confounding variables to identify definite factors effecting the acquirement of problem solving skills.	26/48 (54%)
Hodel & West (2003)	A-B design; the same 15 patients participate in an A phase (substitution for a control group) and the B Phase (treatment); First, baseline (A-Phase) for 8	The treatment group (n=15) is used as a substitute for a control group by means of a baseline and waiting list condition.	Two patients refused to participate in the study. No drop-outs.	Syllable-memorizing Test (Fahrenberg et al., 1977); Self-report (Suellwold & Herrlich, 1990); Nurses' Observation Scale for Inpatient Evaluation (NOSIE; Honigfeld, et al., 1966); Brief	No	• Baseline scores were highly comparable to each of the pre-tests and IVTA participants showed significant improvement in all three levels of measurement (i.e. objective, self-report and staff rating) between baseline and post group scores. • No significant improvements in psychopathology;	• A-B design allows outcome research to be conducted without breaching ethical considerations (i.e. patient's right to treatment). • A-B design controls for variables such as motivation and mixed demographic	• A-B design means the control and treatment group were conducted consecutively not in parallel, thus variables such as time were not controlled for. • The A-phase was slightly shorter than the B-phase. • Small sample size, which only allowed for non-	32/48 (67%)

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	weeks where patients were assigned to standard treatment. Next patients were trained in IVTA for 10 weeks (B-Phase) while continuing to participate in standard treatment; The B-Phase data were later compared with the A-Phase.			Psychiatric Rating Scale (BPRS; Overall and Gorham, 1962).		• The BPRS did not show any significant change in psychotic symptoms; however, a trend to lower symptoms was revealed at the post-test. • Patients themselves believed that the treatment helped them; • Staff rated the patients' social competence as improved and behavioural problems as fewer. • Results from the Syllable-memorizing Test indicated that some patients improved significantly, while some did not. Thus, some patients seem particularly suited for IVTA. • IVTA provide positive results for MDOs with treatment resistant-schizophrenia; however, further studies need to be conducted in order to generalise results to a wider MDO population.	characteristics. • A-B design reduces the Hawthorne effect (i.e. patients changing their behaviour due to the knowledge that they are being studied/ observed). • Combined use of objective, self-report and staff rating measures. • Staff rating measures were blind to the treatment condition.	parametric analyses. • No follow-up conducted. • Reliability and validly of measures not reported. • Self-report assessments limited due to being subjective.	
Jotangia, Rees-Jones, Gudjonsson, & Young (2015)	18 patients were recruited to the R&R2MHP group (17, 94%) from medium security and 1 (6%) from low security); 20 control participants were recruited (18, 90%) from medium security and 2 (10%) from low security.	Control group received treatment as usual (TAU); (n=20 waiting list controls).	50% of patients refused to participate in the study. Two patients from the treatment group dropped-out (both dropped out due to deterioration in their mental state).	Maudsley Violence Questionnaire (MVQ; Walker, 2005); The Locus of Control Scale (LoC; Nowicki & Duke, 1974); Social Problem-Solving Inventory Revised-Short Form (SPSI-RS; D'Zurilla et al., 2002); Novaco Anger Scale and Provocation Inventory: Reaction to Provocation/ Personal Affect Questionnaire (NAS-	Yes, 3 -month follow-up	• Drop-out was very low (11%). • Compared with the control group, a conservative intention-to-treat analysis found significant treatment effects at outcome for positive problem-solving orientation and rational problem-solving style with a medium and large effect, respectively. • A large effect was also found for LoC (participants moving toward an internal control perspective). • No significant differences were found on the outcome measure of violent attitudes (MVQ), reactions to provocation assessed by the NAS-PI, and	• Facilitators received training in delivering the program and supervision. • Mentors received written guidance, training and supervision. • Treatment integrity ensured; manualised program and consistency in delivery. • Potential confounding variables at baseline were controlled for statistically. • Participants in R&R2MHP and in the control group were well matched on demographic factors, motivation to engage in	• Small sample size and underpowered, due to high number of refusals to participate in study. • No random assignment of patients thus confounding variables likely. • Potential selection bias due to not being able to compare patients who had refused to participate. • Sample was adult females with severe mental illness, thus, findings may not be generalised to other conditions (e.g. females with a primary diagnosis of PD).	37/50 (74%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
				PI; Novaco, 2003); The Disruptive Behavior and Social Problem Scale (DBSP; Young et al., 2003);		social functioning and behaviour on the ward (DBSP). • The large treatment effect for LoC was sustained at 3-month follow-up and increased further. • Ad hoc per protocol analyses found a large treatment effect for ward behaviour. • The study supports the delivering of the R&R2MHP with female MDOs in secure psychiatric settings.	treatment and outcome measures at baseline. • Missing data was dealt with appropriately. • Combined use of staff rating behaviour and self-report measures to assess change. • To minimise positive bias in self-report measures, all data was collected by researchers not involved in facilitating the groups. • Timing of assessments similar between groups. • Conducted a follow-up, although it was short. • Multi-site recruitment increased generalisability to MDOs in medium and low secure settings.	• Only clinical indicators used to evaluate effectiveness not recidivism rates. • Information about other interventions was not collected, and thus other treatments were not controlled for. • DBSP measure rated by staff who were not blind to group condition; between-rater differences likely due to same staff member not able to complete measure at all-time points. • The measures had limited established reliability and validity with female patients; thus need to be interpreted with caution. • Only two measures re-administered at follow-up; thus, unknown whether significant treatment effects were present at that time.	
Long, Fulton, Dolley, & Hollin (2011)	24 patients were recruited to the treatment group. For comparison purposes participants who had attended more than 70% of sessions (i.e. 8	No control group; compares completers with non-completers	9 non - completers	Social Problem-Solving Inventory – Revised (SPSI-R:S, D'Zurilla et al., 2002); Beck Depression Inventory (BDI-II, Beck, Steer & Brown, 1996); Generalized Self-Efficacy Scale (GSES, Jerusalem &	No	• No significant differences between completers and non-completers on demographics or on pre-scores on psychometrics. • Several changes pre- and post-intervention for completers were found; women showed a significant improvement with large effect sizes in Total Social Problem Solving; decrease in NPO, Impulsivity/Carelessness and Avoidance Style and	• Potential confounding variables at baseline were controlled for statistically. • Sessions were delivered weekly by an accredited cognitive behavioural therapist and a co-facilitator.	• Non-randomised design presents the possibility of confounding variables. • Reliance on self-report measure, thus limited due to being subjective. • A small, possibly non-representative sample of women in medium secure care, limits generalizability • Information about other interventions and	24/48 (50%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
	or more group sessions) were classified as treatment completers.			Schwarzer, 1992); Camberwell Assessment of Need Forensic Version (CANFOR, Thomas et al., 2003); Health of the Nation Outcome Scale – Secure (HoNOS – Secure, Sugarman & Walker, 2004).		employing a more rational approach to social problem solving (RPS). • Findings were paralleled by an increase in self-efficacy (GSES) and by lower ratings of depression (BDI-II) with changes showing a large and a moderate effect size respectively. • Conclusion: for women in MSUs a social problem-solving group can effect positive changes in social problem-solving abilities. • A treatment non-completion rate of one-third raises questions of both acceptability and timing of cognitive behavioural interventions.		medication was not collected and thus other treatments were not controlled for. • A confounding variable is likely (i.e. patients who fail to complete treatment display lower level of engagement). • No follow up conducted • No control group • Only some measures were tested on females • Does not discuss how missing data was dealt with.	
McMurran, Egan, Richardson, & Ahmadi (1999)	9 patients were recruited to the treatment group (five patients in one and four in another).	No control group	None reported	Social Problem-Solving Inventory Revised (SPSI-R, Long version); D'Zurilla, Nezu, & Maydeu-Olivares, 2002).	No	• Comparisons of pre- and post-intervention revealed a statistically significant improvement in total problem solving and statistically significant reductions in negative problem orientation (NPO) and impulsivity/carelessness style (ICS). • Despite small sample size; effect sizes, and consequent power, are medium to large for SPS, NPO, RPS and ICS. • Improvements on this scale indicate that a person feels less threatened and distressed in the face of a problem, and more optimistic about finding a solution. • Study indicates that social problem-solving skills training may be of value with MDOs.	• Timing of assessments similar between groups. • Potential confounding variables at baseline were controlled for statistically. • Outcome measure used was reliable and valid. • Patients did not differ, on the SPSI-R scale, from the norms established for adult psychiatric patients.	• Reduced statistical power was due to a small sample size. • No control group • No follow up conducted • Only one self-report measure used to assess clinical change; • No measures to assess behavioural change/ recidivism data. • Participants volunteered so maybe more motivated. • Non-randomised design presents the possibility of confounding variables.	28/46 (61%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Rees-Jones, Gudjonsson, & Young (2012)	67 patients were recruited to the R&R2MHP group (42, 63%) from medium security and 25 (37%) from low security); 54 control participants were recruited(47, 87%) from medium security and 7 (13%) from low security.	Control group received treatment as usual (TAU); (n=54 waiting list controls).	15 **(**22%) of patients were classified as non-completers because they attended less than 12 sessions of the programme (n = 6), due to intentional withdrawal early in the program(n= 4), deterioration in mental state (n=3), discharge (n = 1) or a clash in timetabling (n =1).	Maudsley Violence Questionnaire (MVQ; Walker, 2005); The Locus of Control Scale (LoC; Nowicki & Duke, 1974); Social Problem-Solving Inventory Revised-Short Form (SPSI-RS; D'Zurilla et al., 2002); Novaco Anger Scale and Provocation Inventory: Reaction to Provocation/ Personal Affect Questionnaire (NAS-PI; Novaco, 2003); The Disruptive Behavior and Social Problem Scale (DBSP; Young et al., 2003).	Yes, 3 - month follow-up	• 52 (78%) of group participants completed the group; thus low drop-out rate. • Non-completers rated themselves on the SPSI as having significantly better problem-solving skills than completers. • In contrast to controls, significant treatment effects were found for the R&R2MHP group at outcome with small effects on violent attitudes on the MVQ Machismo, Acceptance of Violence and Total scales; on the SPSI-RS Rational scale and a reduction in anger cognitions (NAS-PI). • Significant improvements were endorsed on the DBSP by informant ratings on the total score and Social and Psychological subscale. • No significant differences were found between groups on LoC. • For the R&R2MHP group, significant small effects were found for violent attitudes (MVQ) and LoC at follow up; thus, improvement were sustained over-time. • Study found the R&R2MHP to be effective in reducing antisocial thinking and behaviour in male MDO inpatients from different levels of security.	• Good sample size • Multi-site recruitment increased generalisability to MDOs in medium and low secure settings • Treatment integrity ensured; manualised program and consistency in delivery. • Facilitators received training in delivering the program and supervision. • Mentors received written guidance, training and supervision. • Potential confounding variables at baseline were controlled for statistically. • Participants in R&R2MHP and in the control group were well matched on demographic factors and outcome measures at baseline. • To minimise positive bias in self-report measures, data were collected by researchers not involved in facilitating the groups. • Timing of assessments similar between groups. • Combined use of staff rating behaviour and self-report measures to assess change. • Missing data was dealt with appropriately. • Conducted a follow-up, although it was short. • Outcome measures used were reliable and valid.	• No random assignment of patients thus confounding variables likely. • Staff administered DBSP; not possible to collect follow up informant data due to high staff turnover. • Patient records were inconsistently recorded across sites; critical incident reports had a floor effect with most patients having no incidents recorded. • Multi-site trials (medium & low secure) had within and between-site variations in procedures and participants. • Sample was adult males with severe mental illness, thus findings cannot be generalised to a wider offender population. • Only clinical indicators used to evaluate effectiveness; no objective measures. • Information about other interventions was not collected and thus other treatments were not controlled for. • Only two measures re-administered at follow-up; thus, unknown whether significant treatment effects were present at that time.	39/50 (78%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Tapp, Fellowes, Wallis, Blud, & Moore (2009)	A total of 10 ETS courses were run over a 6 year period. For comparison purposes participants who completed 10 sessions or less were allocated to a non-completer category on the basis of an insufficient number of sessions attended.	No control group; compares completers with non-completers	21 non - completers	Clinical outcomes in routine evaluation – outcome measure (CORE-OM, Evans et al., 2002); The psychological inventory of criminal thinking styles (PICTS, Walters, 1995); Social problem solving inventory (SPSI, Freedman, et al, 1978).	No	• Comparison of completers and non-completers; participants with mental illness were less likely to complete the group; participants convicted of sexual offences appeared more likely to complete the programme compared with violent offences; on the pre-group SPSI completers rated themselves as less passive with regards to problem-solving. • Participants with a longer period of admission prior to the group tended to complete the programme; those with more previous convictions were significantly more likely to complete the programme. • Comparing pre- and post-scores for completers significant differences were found on four of the eight PICTS scales including mollification, cut-off, power orientation, and cognitive indolence; no significant differences were found on the COREOM scales; A significant effect was found on the SPSI where post-group; participants chose less aggressive responses to solutions and were more likely to choose a passive solution. • Conclusions: There is a significant short-term impact of the course on MDOs with regards to an increase in their social problem solving skills. Thus, some support for ETS within secure hospital settings.	• Each team undertook weekly/fortnightly supervision with fully trained ETS programme leaders. • Adherence to the programme and manual was supervised by an external trainer and consultant. • Good sample size and generaliasble to MDOs in high secure settings.	• Outcome measures were minimally adjusted to meet the needs of the patient population, which may have affected standardisation. • Changes were made to programme in relation to repetition of key learning points for those who were quickly fatigued and/or with memory attention problems, thus not consistent. • Any previous experience of ETS course was not examined systematically. For example a small number of prison transfers had previously completed an ETS course, others knew of it. • Chi Square analysis was limited by low group frequencies and no Bonferoni analysis performed. • No control group • No follow up • Missing data reported but not clear how this was dealt with.	24/48 (50%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Yip, Gudjonsson, Perkins, Doidge, Hopkin, & Young (2013)	30 patients were recruited to the R&R2MHP group and 29 patients were recruited to the control group from a high security setting; a total of 5 groups, each with 5–8 participants.	Control group received treatment as usual (TAU); (n=29 waiting list controls).	6 patients from the treatment group dropped-out (reasons not reported).	Maudsley Violence Questionnaire (MVQ; Walker, 2005); Novaco Anger Scale and Provocation Inventory: Reaction to Provocation/ Personal Affect Questionnaire (NAS-PI; Novaco, 2003); Ways of Coping Scale (WAYS; Lazarus & Folkman, 1984); Social Problem-Solving Inventory Revised-Short Form (SPSI-RS; D'Zurill et al., 2002); The Disruptive Behavior and Social Problem Scale (DBSP; Young et al., 2003).	No	• 80% of group participants completed the group; thus low drop-out rate. • Non-completers were rated by informants to be significantly more behaviourally disturbed and to have more social problems on the DBSP. • In contrast to controls, significant treatment effects were found for the R&R2MHP group at outcome on violent attitudes (medium effect for total MVQ score and Acceptance of Violence scale, and small effect for Machismo scale); all large treatment effects for the WAYS coping processes; on the SPSI-RS (positive problem-solving orientation, large effect; rational problem-solving style, large effect; avoidance problem-solving style, small effect). • Significant improvements with a medium treatment effect were endorsed on the DBSP by informant ratings on the total score and Social and Psychological subscale and a small effect for the Disruptive Behavior scale. • No significant differences were found on the NAS-PI scores. • Post-hoc per protocol analysis found treatment effect increasing for all significant outcomes, ranging between medium and large effect. • R&R2MHP was found to be effective in a sample of high risk MDOs in a high security setting.	• Potential confounding variables at baseline were controlled for statistically. • To minimise positive bias in self-report measures, data were collected by researchers not involved in facilitating the groups. • Missing data was dealt with appropriately. • Outcome measures used were reliable and valid. • Facilitators received training in how to deliver the program. • Program integrity ensured through a structured, manualised design, regular meetings, supervision and random observations of group sessions. • No significant differences between the R&R2MHP and control group on demographic factors, psychotic symptoms, antisocial personality traits, and outcome measures at baseline. • Timing of assessments similar between groups.	• Slightly underpowered; thus may have resulted in lower effect sizes. • No random assignment of patients thus confounding variables likely. • Patients excluded by the clinical team were likely to be for reasons of mental instability and risk of violence; thus resulting in selection bias and reducing generalisability. • Patients to receive treatment were referred first; thus, likely to be motivated to change. • Unable to collect a large amount of informant data (DBSP) post treatment due to high staff turnover. • Information about other interventions was not collected and thus other treatments were not controlled for. • Record of critical incidents on the ward was unhelpful due to low baseline of incidents and most patients having no incidents recorded. • Only clinical indicators used to evaluate effectiveness; no recidivism data. • No post-group follow up. • Reasons for drop-out not reported.	36/48 (75%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Young, Chick, & Gudjonsson (2010)	58 patients were recruited to the R&R2M group (27, 47%) from high security, and 31 (53%) from medium security); 12 control participants were recruited (11, 92%) from high security and one from medium security. A total of five groups were run, two in high security and three in medium security.	Control group received treatment as usual (TAU); (n=12 waiting list controls).	Refusals at the outset (n=11); non-compliance (seven patients), mentally unwell (three patients) and literacy problems (one patient); Thirteen failed to commence the programme (four non-compliant; five transferred prior to the start of the programme; three declined in mental state; one overlapped with another research study; 12 patients from the treatment group dropped-out (seven lacked motivation, three declined in mental state, and two transferred).	Maudsley Violence Questionnaire (MVQ; Walker, 2005); Ways of Coping Scale (WOCS; Lazarus & Folkman, 1984); Social Problem-Solving Inventory Revised-Short Version (SPSIR:S; D'Zurilla et al., 2002). Disruptive Behaviour and Social Problem Scale (DBSP; Young et al., 2003).	No	• Out of the total sample (70 participants), the difference between medium and high security in terms of refusal was significant (nine from high security and two from medium security). • The difference between medium and high security in terms of drop-out was significant (11 from medium security and two from high security) • 22 participants completed the programme (10, 45.5% from medium security; 12, 54.5% from high security). • In comparison to the control group there were significant improvements for group completers on measures relating to attitude towards violence (MVQ) and informant-rated behaviour DBSP effect sizes; nurses rated a significant decrease in disruptive behaviour • There were no significant differences pre and post on the WOCS and SPSI-R. • With a non-start rate of 22.4% and a completion rate of 64.7%, the findings suggest that R&R2M is both feasible and effective to run with MDOs in forensic mental health settings.	• Treatment integrity ensured through the random observation of group sessions by one programme authors who provided feedback at the end of the session. • All data collected by psychology assistants who were not involved in facilitating the groups. • Timing of assessments similar between groups. • Multi-site recruitment increased generalisability to MDOs in high and medium secure settings • Combined use of staff rating behaviour and self-report measures to assess change. • DBSP outcome measure was completed by the same staff pre and post treatment.	• No information whether the two groups matched demographics at baseline. • Small sample size; thus not possible to conduct analyses looking at within and between group interactions. • Majority of control group were from high security; thus may not have been truly comparable. • Male sample thus, generalisations to females in secure settings cannot be assumed. • Self-report measures, thus possibility of social desirability, poor insight. • DBSP measure relied upon staff report, however, staff were not blind to patient participation in the programme, thus ratings may have been affected. • Participants were not randomly selected, thus sampling bias possible. • Participants who volunteered to treatment may be more motivated to change, thus influence outcome. • Information regarding reliability, validity and standardisation of outcome measures not reported. • No follow-up conducted.	24/48 (50%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Young, Hopkin, Perkins, Farr, Doidge, & Gudjonsson (2012)	16 patients were recruited to the R&R2 ADHD group and 15 patients were recruited to the control group from the DSPD Unit at a high security setting; a total of 3 groups were delivered.	Control group received treatment as usual (TAU); (n=15 waiting list controls).	4 patients from the treatment group dropped-out (one deteriorated in mental state; two intentionally withdrew; one for intermittent attendance).	Social Problem-Solving Inventory Revised-Short Form(SPSI-RS; D'Zurilla et al., 2002); Maudsley Violence Questionnaire (MVQ; Walker, 2005); Novaco Anger Scale and Provocation Inventory: Reaction to Provocation/ Personal Affect Questionnaire (NAS-PI; Novaco, 2003); The R&R2 ADHD Training Evaluation–Self-Report Scale (RATE-S; Young & Ross, 2007).	No	• 76% of group participants completed the program. Group completers attended a mean of 13.33 (SD= 1.15) sessions, and the non-completers attended a mean of 8.5 (SD= 2.66) sessions; no significant differences between the two groups for age, psychopathy and motivation. • In contrast to the control group the R&R2A group scored significantly lower on the SPSIR:S Impulsivity/Carelessness and Avoidance Scales and significantly higher on the Total SPSI score with small to medium effect sizes. • On the MVQ, the R&R2A group scored significantly lower than control participants on the Machismo Scale, with a medium effect size. • In contract to the control group R&R2A participants obtained significantly lower scores at outcome on the NAS-PI Total score, Arousal subscale, and Behaviour subscale, all with a medium effect size. • R&R2A participants scored significantly lower than the control participants on the RATE-S Total score, the ADHD and Emotional Control Scales, with effect sizes ranging small to large • R&R2 ADHD was found to be feasible and effective in a small sample of severely personality-disordered offenders in a high secure setting.	• Timing of the assessments was the same for the R&R2A and TAU group. • A core set of facilitators received training, and one of whom was present in each group session. • Mentors received direction through training and written guidelines. • Treatment integrity ensured via a manualised program; consistency in delivery; supervision and monitoring of sessions by the program author. • Data collected by student psychologists who did not facilitate the groups; thus, minimise positive bias in self-report measures. • Potential confounding variables at baseline were controlled for statistically. • Outcome measures used were reliable and valid. • Missing data was dealt with appropriately. • No significant differences between the two groups on motivation, psychopathy, number of previous convictions, and outcome measures at baseline. However, R&R2A group attendees tended to be older.	• Small sample size, thus statistically underpowered • Results rely on self-reported outcomes, thus possibility of social desirability. • Sample was exclusively adult males diagnosed with PD, thus findings cannot be generalised to a wider offender population • Only clinical outcome measures used to evaluate effectiveness; no recidivism data. • No follow up conducted. • Participants were not randomly selected, thus sampling bias possible.	37/48 (77%)

Table 5: *Characteristics, findings, strengths and limitations of the included Cohort Studies*

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
Kunz, Yates, Czobor, Rabinowitz, Lindenmayer, & Volavka, (2004) Yates, Kunz, Czobor, Rabinowitz, Lindenmayer, & Volavka, (2005) Yates, Kunz, Khan, Volavka, & Rabinowitz (2010).	90 patients completed the programme, were discharged into the community and completed a follow-up. 91 patients were non-completers.	No control group	Five of the 90 patients had completed less than six months of outpatient follow-up the endpoint for participant inclusion. Thus the sample in the study consisted of 85 patients. Eight patients from the group of 85 had been lost to follow-up. Thus complete follow-up data were available for 76 patients (89%)	Monthly reports by the case managers, which included information about adherence to outpatient treatment, substance use or abuse, inpatient psychiatric readmissions, post discharge arrests, and violent behaviours.	Yes - 6 months up to 5 years	• 33 patients (39%) remained stable in the community, 35 (41%) were rehospitalised. Only 17 patients (20%) were rearrested. • Several variables ascertained before discharge predicted rehospitalisation or arrest rates: comorbid antisocial PD, higher score on the Psychopathy Checklist, history of arrests for violent crimes, and history of a learning disability. • The stable and hospitalized group had lower substance use and the rearrested group had the highest use. • The rearrested group had the greatest noncompliance with outpatient psychopharmacologic treatment. • *Study 2:* Patients who completed the treatment were less cognitively impaired and impulsive than those who were unable to complete the program. • Regardless of the presence of psychopathic features, patients succeeded in the programme. • *Study 3:* Over the 5 year follow-up 145 males and females completed the intervention and were discharged into the community between December 2002 to December 2007. 31 (21%) remained stable, 67 (46%) were hospitalised , 47 (32%) were rearrested. Of the	• Excluded the group of unavailable patients which would have selectively biased the study sample. • Mixed group which considered males and females MDOs. • None of the demographic variables significantly discriminated the three groups. • Outcome measures used were reliable and valid	• Small sample, thus findings must be interpreted with caution. • Not all participants could be rated on all variables. • Participants who completed the intervention had better cognitive abilities and fewer impulsive behavioural problems than those who were terminated from the program and transferred to other wards rather than being discharged to the community. Thus, this may have contributed to the low re-arrest rates. • Selection biases limit the ability to generalise the results to other populations. • No control group or follow up of non-completers. • There were differences between the three outcome groups (i.e. stable, rehospitalised, and rearrested) during the follow-up (e.g. the stable group had a shorter duration of follow-up than the other groups). • Mixed groups: Cannot tell the difference for men and women as data is all combined.	35/46 (76%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
						rearrested group, 10 (7%) were rearrested only and 37 (26%) were rearrested and hospitalised • Concluded that significantly, fewer arrests, hospitalizations, and days institutionalized occurred post-STAIR treatment, combined with follow-up care. Improved compliance with medication and attendance at psychiatric appointments were important mediating factors in outcome.		• Cannot exclude the possibility that the reductions in arrest and hospitalisation rates were related to follow-up procedures. • Some analyses may be subject to a Type 2 error.	
McMurran, Fyffe, McCarthy Duggan, & Latham, (2001)	14 patients were followed up at 3 and 9 months following completion of the programme. Further follow up was conducted for 8 of these patients at 15 months.	No control group	Only 8 patients followed up at 15 months	Social Problem-solving Inventory – Revised (SPSI-R; D'Zurilla et al., 2000) (52 items).	Yes - (3, 9 and 15 month follow up).	• Comparisons of SPSI-R scores at three and nine months demonstrated significant improvement on all scales and subscales apart from Positive Problem Orientation (PPO). • Change was maintained for the eight participants at 15 months follow-up; with no significant further improvement. • In conclusion, there is sufficient evidence to suggest that the 'Stop & Think!' programme for PD offenders is effective.	• All staff in the ward received a day's training • Facilitators undertook 12 weeks on-the-job training • Experienced staff led the first six sessions, and the trainee led the remainder of the sessions, receiving feedback and support from the experienced staff. • Tests were repeated at six-month intervals. • Work was monitored and audited. • All disciplines of staff addressed patients' needs in various other treatment programmes (i.e. anger management) and actively encouraged the development and transfer of skills out of problem-solving group time. • Outcome measures used were reliable and valid	• Only 8 patients at 15 months follow up • No follow up in relation to patient's' progression in terms of rehabilitation and recidivism. • No control group, thus difficult to account for change. • Cannot be certain that 'Stop & Think! 'programme created change; it is possible that other factors are responsible for the patients' improvements (i.e. other treatments not controlled for). • Only one self-report measure used, behaviour change not assessed for. • Self-report measure lacks validity because the patient may lack self-awareness, lack understanding due to their limited verbal	30/46 (65%)

Author(s)	Procedure	Comparison group (if applicable)	No. of refusals and/ or drop-outs	Outcome measures	Follow -up	Findings	Strengths of the study	Limitations of the study	Quality score
								intelligence • Small sample size, thus, lacks generalizability. • No information regarding baseline data reported. • At initial testing, PD patients scored worse than the normative sample of MDO's on all scales of the SPSI-R except PPO. Thus, this limits generalisability to other populations.	

All fourteen studies varied in terms of gender, diagnosis, type of intervention employed, length of group intervention, outcome measures used and data analysis applied. Therefore, only qualitative data synthesis could be undertaken to determine findings, and to establish conclusions.

3.1 Descriptive summary of studies

Of the fourteen studies included in the review two were of female MDOs (Jotangia et al., 2015 and Long, Fulton, Dolley, & Hollin, 2011), and one was of mixed male and female MDOs (Kunz, Yates, Czobor, Rabinowitz, Lindenmayer, & Volavka, 2004). The remaining eleven studies were of male MDOs (Clarke et al., 2010; Cullen, Clarke, Kuipers, Hodgins, Dean, & Fahy, 2012a; Donnelly & Scott, 1999; Hodel & West, 2003; McMurran, et al., 1999; Rees-Jones et al., 2012; Tapp et al., 2009; Yip, et al., 2013; Young, Chick, & Gudjonsson, 2010; Young, Hopkin, Perkins, Farr, Doidge, & Gudjonsson, 2012) and McMurran, Fyffe, McCarthy Duggan, & Latham, 2001).

All participants were based in a secure hospital setting; twelve were based in the United Kingdom (UK), and two studies were located in the United States of America (USA). In terms of security level, five studies were based in medium secure units; three were based in high secure units; two studies included participants from both medium and low secure units (Jotangia et al., 2015; Rees-Jones et al., 2012) and one study included participants from high and medium secure units (Young, et al., 2010). Three studies were located in state hospitals and the security level was not reported (Donnelly & Scott, 1999; Hodel & West, 2003; Kunz et al., 2004).

The methods employed by the included studies comprised of experimental designs (one randomised controlled trial; RCT and eleven quasi-experimental) and two cohort study designs.

The mean sample size of all the included studies was 56.3 and the number of participants ranged from 9 to 181. All participants included in the studies were either given a diagnosis of mental illness, PD, or mental illness and/or PD. There were five studies that included participants with mental illness (Clarke et al., 2010; Hodel & West, 2003; Jotangia et al., 2015; Rees-Jones et al., 2012 & Yip et al., 2013); three studies that included participants with PD (Young et al., 2010; Young et al., 2012 & McMurran et al., 2001) and six studies that included participants with mental illness and/or PD (Cullen et al., 2012a; Donnelly & Scott, 1999; Long et al., 2011; McMurran et al., 1999; Tapp et al., 2009; Kunz et al., 2004). In relation to offence type, six of the studies did not stipulate the type of offence committed by participants (See tables 2 and 3). From the remaining eight studies, the types of offences that were most frequently reported included homicide; violence; sexual violence; assault and arson). From data synthesis it was identified that there were seven different cognitive skills programmes that were evaluated. These included:

1) Reasoning and Rehabilitation (R&R; Clarke et al., 2010; Cullen et al., 2012a; Donnelly & Scott, 1999).
2) Reasoning and Rehabilitation Mental Health Program (R&R2MHP; Jotangia et al., 2015; Rees-Jones et al., 2012; Yip et al., 2013; Young, Chick, & Gudjonsson, 2010).
3) Reasoning and Rehabilitation ADHD (R&R2ADHD; Young et al., 2012).
4) Stop and Think (Long et al., 2011; McMurran et al., 1999; McMurran et al., 2001).
5) Enhanced Thinking Skills (ETS; Tapp et al., 2009)
6) System for Treatment and Abatement of Interpersonal Risk (STAIR; Kunz et al., 2004)
7) In vivo Training of Goal-directed Actions (IVTA; Hodel & West, 2003).

The programmes that were delivered the most with MDOs in secure settings were the R&R2MHP, followed by R&R and Stop and Think. Programme duration also varied, which ranged from between 6 sessions to 72 sessions. The Stop and Think programme had 10 sessions or less; R&R2ADHD had 15 sessions; R&R2MHP had 16 sessions; ETS and IVTA had 20 sessions; R&R had 36-54 sessions and STAIR had 72 sessions. The length of group sessions ranged from 45 minutes to 2 hours with 8 of the studies delivering the intervention for an average of 90 minutes. (See tables 2-5 for further information).

3.2 Effectiveness of social problem solving groups with MDOs in reducing factors contributing to recidivism and/or in recidivism.

3.21 Males

All eleven studies reported mostly positive results with male MDOs. These studies comprised of one RCT (Cullen et al., 2012a); 9 quasi-experimental (Clarke et al., 2010; Donnelly & Scott, 1999; Hodel & West, 2003; McMurran et al., 1999; Rees-Jones et al., 2012; Tapp et al., 2009; Yip et al., 2013; Young et al., 2010; Young et al., 2012) and 1 cohort study (McMurran et al., 2001).

The three studies that implemented the R&R programme with male MDOs concluded that this programme can be implemented in secure hospital settings; that cognitive skills programmes delivered in MSUs can reduce forms of anti-social behaviour (e.g. disruptive behaviour, verbal aggression, leave violation), and those who completed the R&R programme demonstrated better cognitive abilities; thus indicating problem solving can be successfully taught to MDOs (Cullen et al., 2012a; Clarke et al., 2010; Donnelly & Scott, 1999). However, Cullen et al (2012a) reported that the R&R programme may not meet the needs of

patients who display high levels of impulsivity, poor behaviour control and anti-social and psychopathic traits.

Four studies that evaluated the revised version of the R&R programme; R&R2MHP and R&R2ADHD with male MDOs, concluded that R&R2MHP was both feasible and effective to run with MDOs and was effective in reducing antisocial thinking and behaviour in male MDO inpatients from different levels of security (Rees-Jones et al., 2012; Young et al., 2010). Yip et al (2013) also found the R&R2MHP to be effective in a sample of high risk MDOs in a high security setting. Further, the R&R2ADHD programme was found to be feasible and effective in a small sample of severely personality-disordered offenders in a high secure setting (Young et al., 2012).

The two studies that evaluated the Stop & Think programme, the authors concluded that there was sufficient evidence to suggest that social problem-solving skills training may be of value with MDOs and effective with PD offenders (McMurran et al., 1999; McMurran et al., 2001).

The study that reviewed the ETS programme concluded that there was a significant short-term impact of the course on male MDOs with regards to an increase in their social problem solving skills. Hence, some support for the ETS programme within secure hospital settings (Tapp et al., 2009). Similarly, Hodel & West (2003) found positive results with the IVTA programme for male MDOs with treatment resistant- schizophrenia.

3.22 Females

Two studies also reported mainly positive results with female MDOs. These studies comprised of two quasi-experimental designs (Jotangia et al., 2015 & Long et al., 2011). Jotangia et al (2015) evaluated the R&R2MHP intervention and concluded that the study supported the

delivering of the programme with female MDOs in secure psychiatric settings. Relatedly, Long et al (2011) assessed the Stop & Think programme and found for women in MSUs a social problem-solving group can effect positive changes in social problem-solving abilities. However, a high treatment non-completion rate raised questions about the acceptability and timing of such programmes (see drop-out section below).

3.23 Mixed Males and Females

One cohort study (Kunz et al., 2004; Yates, et al., 2010) reported largely positive results with male and female MDOs. This study evaluated the effectiveness of the STAIR programme and concluded that significantly, fewer arrests, hospitalizations, and days institutionalized occurred post-STAIR treatment, combined with follow-up care. Further, improved compliance with medication and attendance at psychiatric appointments were important mediating factors in outcome. However, the findings for male and female patients were not distinguished, thus difficult to determine the impact upon gender.

3.3 Treatment groups vs. control groups/ comparison groups

Nine out of the fourteen studies included a control group (Clarke et al., 2010; Cullen et al., 2012a; Donnelly & Scott, 1999; Hodel & West, 2003; Jotangia et al., 2015; Rees-Jones et al., 2012; Yip et al., 2013; Young et al., 2010; Young et al., 2012). Two studies had a comparison group where completes vs. non-completers were compared (Long et al., 2011 & Tapp et al., 2009), and three studies had no control group, only the treatment group (McMurran et al., 1999; McMurran et al., 2001 & Kunz et al., 2004).

3.31 Control groups (R&R)

Clarke et al (2010) reported that patients who completed R&R showed significantly improved problem solving ability and coping responses compared with the control group as indicated by pre and post measures. This was supported by Cullen et al (2012a; 2012b) who asserted that the R&R group showed significant improvements in pre and post measures in comparison to the control group. In addition, R&R group participation showed a reduction in verbal aggression and leave violations during treatment when compared with the control group. However, no differences were found between the R&R or control group in the number of incidents of violence.

In contrast, Donnelly & Scott (1999) reported varied results. A significant difference was found between the pre and post means on one of the measures assessing problem solving ability in the R&R group. However, following further analysis no significant difference was found between the R&R group and the control group. Further, no significant differences were found within or between groups on measures of self-esteem, social comparison or locus of control.

3.32 Control groups (R&R2MHP & R&R2ADHD)

Jotangia et al (2015) stated that compared with the control group, a conservative intention-to-treat analysis found significant treatment effects on some of the outcome measures for the R&R2MHP group (i.e. positive problem-solving orientation and rational problem-solving style with a medium and large effect, respectively, and a large effect was also found with regard to participants moving towards an internal control perspective. Koons et al (2001) reported that this finding was important in a population with a dominant diagnosis of Borderline Personality Disorder where impulsivity and emotional dysregulation is a defining characteristic. Relatedly, Rees-Jones et al (2012) reported that in contrast

to controls, significant treatment effects were found for the R&R2MHP group at outcome with small effects on violent attitudes, rational problem solving and a reduction in anger cognitions.

Similarly, Yip et al (2013) reported that in contrast to controls, significant treatment effects were found for the R&R2MHP group at outcome on violent attitudes, coping responses and social problem solving ranging from medium to large effect sizes respectively. Tong & Farrington (2006) reported that this finding indicated that adaptive social problem-solving can be learnt, even by high risk offenders. Further, Yip et al (2013) found that their programme had a substantial significant effect on coping processes. This may mean that patients may assert themselves and have the confidence to confront and deal with interpersonal problems. In addition, Young et al (2010) reported that in comparison to the control group there were significant improvements for R&R2MHP group completers on measures relating to attitude towards violence and informant-rated behaviour with nurses rating a significant decrease in disruptive behaviour.

Further, Young et al (2012) reported that in contrast to the control group significant treatment effects were found for the R&R2ADHD group at outcome on social problem solving with small to medium effect sizes; significant treatment effects on an outcome measure assessing anger reactions all with a medium effect size, and significant treatment effects on an outcome measure assessing ADHD symptoms; emotional control; conduct problems and social functioning, with effect sizes ranging small to large. Young et al (2012) reported that changes in anger reaction (arousal and behaviour domain) were important findings because these scales predict violence in MDOs (Monahan et al., 2001).

3.33 Control group (IVTA)

In the Hodel & West (2003) study the treatment group was used as a substitute for a control group by means of a baseline and waiting list condition. IVTA participants showed significant improvement in all three levels of measurement (i.e. objective, self-report and staff rating) between baseline and post group scores.

3.34 Comparison groups (ETS and Stop & Think)

Long et al (2011) examined differences between completers and non-completers of the Stop & Think programme and found several changes pre and post-intervention for completers; women showed a significant improvement with large effect sizes in social problem solving; an increase in self-efficacy and by lower ratings of depression with changes showing a large and a moderate effect size respectively. Tapp et al (2009) also compared completers with non-completers but with the ETS programme. However, they compared completers and non-completers on demographic data not on outcome measures. Significant differences were found for completers on outcome measures but findings were not compared to a control group.

3.4 Refusal to participate and number of drop-outs/ non-completers of treatment programme.

3.41 Number of refusals

Three of the studies reported information regarding the number of patients refusing to participate in the treatment programme at the outset. These included Hodel & West (2003; two patients refused to participate); Jotangia et al (2015; 50% refused to participate) and Young et al (2010) who reported 11 participants refused to participate and 13 failed to commence the programme. In addition, Young et al (2010) found a clear difference between settings for refusal at outset and drop-out rates,

reporting most of the refusers (81%) were from high security and most drop-outs (92%) were from medium security.

3.42 Number of drop-outs/ non-completers

Three studies reported no participants dropped out of the group intervention (Hodel & West, 2003; McMurran et al., 1999; McMurran et al., 2001).

When comparing the findings from the studies that employed the original R&R programme with the new revised versions (R&R2MHP & R&R2ADHD), there was a marked difference in drop-out rates. For example, the three studies that evaluated the R&R programme reported a higher dropout rate (Cullen et al., 2012a and Cullen et al., 2011 reported 50% of participants dropped-out; Clarke et al., 2010 and Donnelly & Scott, 1999 both reported that three participants dropped-out). Further, Cullen et al (2011) asserted that psychopathy, anti–social personality disorder, and recent violence appeared to be the strongest predictors of drop-out; thus, MDOs with the highest treatment needs were least likely to receive the full treatment programme.

Whereas, the five studies that evaluated the R&R2MHP and R&R2ADHD programme reported a much lower dropout/ non-completion rate (Jotangia et al., 2015 reported 11% dropped-out; Rees-Jones et al., 2012 reported 22% dropped-out; Yip et al., 2013 reported six dropped-out and 80% completed the programme; Young et al., 2010 reported 12 dropped-out and 65% completed the programme; Young et al., 2012 reported four dropped out and 76% completed the programme).

Long et al (2011) and Tapp et al (2009) reported that there were nine and twenty-one non-completers respectively, due to the insufficient number of sessions completed for each of the studies. Similarly, Kunz et

al (2004) and Yates et al (2005) reported that five of the patients had completed less than six months of outpatient follow-up and were therefore excluded from the study. Yates et al (2005) asserted that the patients who completed the treatment were less cognitively impaired and impulsive than those who were unable to complete the programme.

3.5 Follow-up to assess long-term effectiveness of social problem solving groups with MDOs

Out of the fourteen studies only five studies conducted a follow-up of outcomes. All other studies relied on pre and post measures following the completion of the treatment programme. The two studies that carried out the shortest follow-up of 3 months were Jotangia et al (2015) and Rees-Jones et al (2012). Jotangia et al (2015) reported the large treatment effect for participants moving towards an internal control perspective was sustained at 3-month follow-up and increased further. Similarly, Rees-Jones et al (2012) reported that for the R&R2MHP group, significant small effects were found for violent attitudes and participants moving towards an internal control perspective at follow up; suggesting improvement was sustained over-time.

Cullen et al (2012a; 2012b) carried out a 12 month follow-up and reported that the R&R group showed additional improvements in problem solving ability, general attitude and maintained a reduction in verbal aggression at follow-up. Relatedly, McMurran et al (2001) conducted a longer follow-up, first at three months then again at nine and fifteen months. The author reported that at three and nine months participants demonstrated significant improvement on an outcome measure assessing problem solving ability. At fifteen months only eight patients were followed-up and it was reported that change had been maintained but with no significant further improvement.

The cohort study to include the longest follow-up of 6 months to five years was by Kunz et al (2004) and Yates et al (2010). They reported 39% of patients remained stable in the community, 41% were rehospitalised and only 20% of patients were rearrested. Thus, concluding significantly fewer arrests, hospitalizations, and days institutionalized occurred post-STAIR treatment. In addition, they discussed that the rearrested group had the highest substance use and greatest noncompliance with outpatient psychopharmacologic treatment.

3.6 Outcome measures used to evaluate effectiveness of social problem solving groups with MDOs

Six of the studies only utilised self-report outcome measures (Clarke et al., 2010; Donnelly & Scott, 1999; McMurran et al., 1999; McMurran et al., 2001); Tapp et al., 2009; Young et al., 2012). Seven of the studies used a mix of self-report and staff observation measures (Hodel & West, 2003; Rees-Jones et al., 2012; Yip et al., 2013; Young et al., 2010; Cullen et al., 2012a; Jotangia et al., 2015; Long et al., 2011). One study (Kunz et al., 2004) used monthly reports from case managers to collate relevant data.

The most common outcome measure used was the Social Problem-Solving Inventory Revised (SPSI-R; D'Zurilla et al., 2002) which was used in eleven of the studies. This was followed by the Novaco Anger Scale and Provocation Inventory: Reaction to Provocation/ Personal Affect Questionnaire (NAS-PI; Novaco, 2003) and the Maudsley Violence Questionnaire (MVQ; Walker, 2005) which were both used in five of the studies. In addition, the staff observation measures The Disruptive Behavior and Social Problem Scale (DBSP; Young et al., 2003) was used in four of the studies.

3.7 Quality of the included studies

Quality assessment scores, strengths and limitations of the fourteen studies can be found in Tables 2-5. Four of the studies rated between 50-60%, four studies rated between 60-70%, five studies rated between 70-80% and one study rated over 80%.

3.71 Strengths

Overall a majority of the studies (10) maintained treatment integrity by adhering to the manualised programme and both facilitators and mentors received training and supervision. Ten of the studies were able to control for potential confounding variables statistically and participants in the treatment group and control group were well matched at baseline on demographic factors and outcome measures.

Six of the studies recruited a researcher blind to the study aims to complete pre and post measures to minimise positive bias in self-report measures. Further, eight of the studies ensured that the timing of assessments were similar between the treatment and control groups.

3.72 Limitations

There were a number of factors that impacted upon the quality of the studies and its findings this included sample size. For example, eleven of the studies had a small sample size which limits the ability to generalise findings to a wider MDO population, as well as reduce statistical power, which is likely to have impacted on the failure to find significant differences. However, three of the studies did report good sample sizes (Tapp et al., 2009; Kunz et al., 2004; Rees-Jones et al., 2012). Further, thirteen of the studies employed a non-randomised design, which

presents sampling bias, thus once again limiting the ability to generalise results to other populations (Kunz et al., 2004).

Some of the studies found that the samples used were non-representative of all MDOs (i.e. severely mentally ill males or females with PD) and therefore this limited generalisability to wider offender population (Rees-Jones et al., 2012; Long et al., 2011; Jotangia et al., 2015; Young et al., 2012). In addition, the studies were set in various different secure hospital settings with varying degrees of security, hence may not be truly comparable and generalisations across settings cannot be assumed (Young et al., 2010). Relatedly, although multi-site recruitment increased generalisability to MDOs; Cullen et al., (2012a) reported that heterogeneity was statistically difficult to account for and resulted in within and between-site variations in procedures and participants (Rees-Jones et al., 2012).

Furthermore, three of the studies discussed how participants who refused to participate, were excluded or failed to complete treatment were likely to be more antisocial, display lower level of engagement, mentally unstable and present with risk of violence, thus resulting in selection bias and reducing generalisability of findings (Cullen et al, 2012a; Long et al., 2011; Yip et al., 2013). Further, participants who were referred first or volunteered may be more motivated to change; influencing outcome (McMurran et al., 1999; Yip et al., 2013; Young et al., 2010).

A number of confounding variables were identified in studies including the uncertainties about whether the intervention being investigated created change when other interventions/ medications were not controlled for (Donnelly & Scott, 1999; Jotangia et al., 2015; McMurran et al., 2001). Further, patient records were inconsistently recorded across sites and critical incident reports had a low baseline with most patients having no incidents recorded (Yip et al., 2013; Rees-Jones et al., 2012).

Tapp et al (2009) reported that previous experience of an ETS course was not examined and some patients had previously completed it. Furthermore, Hodel & West's (2003) used an A-B design and the control and treatment group were conducted consecutively not in parallel, thus, variables such as time were not controlled for. In addition, the A-phase was slightly shorter than the B-phase. Relatedly, in Kunz et al (2004) study the stable group had a shorter duration of follow-up than the other groups (rehospitalised, and rearrested) and they argued it was possible that the reductions in arrest and hospitalisation rates were related to follow-up procedures.

The measures to assess MDOs in secure settings also need to be considered. Nine of the studies reported that the measures were reliable and valid, however, not all measures were standardised for this population, especially for a female MDO population (Jotangia et al., 2015; Long et al., 2011), therefore results needed to be interpreted with caution.

Further, as mentioned above seven of the studies combined multi-methods of collecting data via self-report and staff observations, and six of the studies utilised self-report measures. The self-reported measures are limited due to being subjective and lacking validity because participants may answer in a socially desirable manner, lack self-awareness, and understanding due to their limited verbal intelligence (McMurran et al., 2001; Young et al., 2012; Long et al., 2011). In addition, in some cases the staff observation measure (DBSP); the staff were not blind to treatment group condition. Further between rater-differences were likely due to the same staff member not being able to complete the measure at all-time points due to high staff turnover (Jotangia et al., 2015; Rees-Jones et al., 2012; Yip et al., 2013).

4. DISCUSSION

4.1 Main findings

The review aimed to systematically assess the effectiveness of cognitive-behavioural group interventions in forensic secure settings, which address social problem solving deficits in MDOs. The main objective of this review was to determine whether there was a reduction in factors contributing to recidivism and/or in recidivism.

Fourteen studies were included in this review. All fourteen suggested that social problem-solving groups for men and women MDOs in secure settings are feasible. These cognitive skills groups were found to improve social problem solving ability; coping processes, behavioural control and emotional stability. They were also found to reduce antisocial attitudes and behaviour; anger problems; ADHD symptoms; key problems areas in terms of reducing future offending (Andrews & Bonta, 2010). In addition, one study (Kunz et al., 2004) found lower re-arrest rates compared to studies with similar populations.

Further, several studies identified that the shorter revised programmes (i.e. R&R2MHP and R&R2ADHD) had lower drop-out rates, thus, being more cost-effective than the original R&R program, which contains more than twice as many sessions and had a much higher drop-out rate (Jotangia et al., 2015; Rees-Jones et al., 2012; Yip et al., 2013; Young et al., 2010; Young et al., 2012). In addition the revisions that were made in R&R2MHP and R&R2ADHD made the programme more responsive to the needs of MDOs who are a complex group of offenders; presenting with severe mental illness and/ or PD, high rates of comorbidity, entrenched antisocial attitudes and rigid cognitive styles (Yip et al., 2013). Relatedly, Hollin and Palmer (2009) reported that the reduction in duration of the programme together with the individual mentor sessions that aimed to

help patients transfer skills from the programme to daily activities on the unit were likely to be important factors in limiting programme drop-out.

The findings also suggested that the drop-out rate may be associated with high risk patients, suggesting that completion rates may be inflated by the inclusion of lower risk patients who are more motivated in the rehabilitation process (Yip et al., 2013). For example, Cullen et al (2011; 2012b) found psychopathy, anti-social PD, and recent violence appeared to be the strongest predictors of drop-out. Cullen et al (2012a) reported that given that antisocial traits and psychotic symptoms may influence treatment response, it may be possible that an over-estimate of the effects of R&R in this sample were obtained due to having fewer patients with these diagnoses in this sub-group.

Relatedly, Kunz et al (2004) reported that participants who completed the intervention had better cognitive abilities and fewer impulsive behavioural problems than those who were terminated from the program and transferred to other wards rather than being discharged to the community. Thus, this may have contributed to the low re-arrest rates.

However, a number of methodological issues including bias have been identified across the studies, suggesting that the effectiveness of social problem solving groups with male and female MDOs cannot be robustly concluded, as noted in earlier reviews (Duncan et al, 2006; Rees-Jones, 2011; Tyler, 2012).

For example, eleven of the studies had a small sample size; thirteen of the studies employed a non-randomised design; study samples included male/female or mixed gender MDOs and with or without PD; and all studies were set in various different secure hospital settings with varying degrees of security, thus, limiting the ability to generalise findings to a wider MDO population.

Furthermore, there were a total of seven different types of group interventions evaluated across the studies; varying in duration, delivery style, and the revised R&R2MHP groups utilising individual sessions in between. This once again, limits the ability to generalise findings across MDO populations, to directly compare programmes and makes statistical analysis difficult to conduct.

Twenty-seven different assessments tools were utilised across the studies to measure the effectiveness of the cognitive skills programmes. Seven of the studies combined multi-methods of collecting data via self-report and staff observations, and six of the studies utilised self-report measures only, indicating the necessity for a more reliable evaluation approach. Furthermore, studies have relied heavily upon clinical indicators used to evaluate effectiveness rather than assessing behavioural change and recidivism rates (Jotangia et al., 2015; Rees-Jones et al., 2012; Yip et al., 2013; Clarke et al., 2010). Young et al (2010) reported that both clinical change measures and reconviction rates were important when evaluating treatment programmes aimed at MDOs and PD offenders.

Further only five studies out the fourteen conducted a follow-up of outcomes, which ranged from 3 months to 5 years. Longer-term follow up is required to assess patients' progression in terms of rehabilitation and recidivism.

Nine studies included a control group in their study and two studies had a comparison group (completers vs. non-completers). Control groups are important because without a control group it is difficult to account for change and to know exactly what causes a difference in the results between groups. Further the control group allows researchers to eliminate and isolate variables that need to be tested to reduce biases in the study and to identify the effectiveness of the intervention in question (Petticrew & Roberts, 2006).

Although the studies have presented some evidence for the support of social problem solving groups with MDOs in secure settings, the methodological limitations identified in the review need to be taken into consideration when interpreting the findings.

4.2 Strengths and limitations of the review

This review is different from previous reviews because it has solely focussed on examining studies which have evaluated cognitive-behavioural structured group interventions that address social problem solving deficits in MDOs. Further, this review has focussed on examining studies that included both male and female participants.

A systematic approach was applied in order to establish all applicable publications in this review. The use of structured quality assessment and standardised data extraction tools helped to ensure that studies of a good quality were reviewed, and to summarise study findings in a similar format to provide consistency, whilst reducing bias and improving validity and reliability (Centre for Reviews and Dissemination, 2008).

However, a number of biases were inevitable when undertaking the review. For example, through utilising a stringent inclusion and exclusion criteria meant that only a select few studies could be included in the review. Further, those studies which achieved a relatively lower quality score were still considered to be important to include in this review. Firstly, because they met the inclusion criteria and studies examining social problem solving interventions with MDOs in secure settings is still a novel area. Secondly, the inclusion of such studies allowed for an in-depth understanding of the current issues that are still present when investigating this field. However, these studies will have a number of biases, subsequently, impacting upon the systematic review process.

Other biases included were publication bias, which due to time constraints, prevented authors being contacted for further information; excluding book chapters and unpublished articles, and one study identified for inclusion in the review was unobtainable. Thus, this will have limited the inclusion of any potentially relevant studies in the final analysis; subsequently important studies may have been excluded. However, a good proportion of the studies were reviewed by a second reviewer at the inclusion and exclusion stage and during the quality assessment stage, which ensured inter-rater reliability.

As discussed above, a number of methodological issues have been identified in the review relating to sampling and selection bias, differences in the outcome measures used and statistical analysis employed in the studies. Therefore, this made it difficult to compare studies and to use statistical methods to summarise the results of these studies using a meta-analysis. The meta-analyses would have had the potential to increase power and allow for precision when identifying the effectiveness of social problem solving groups with MDOs from the included studies, which would have allowed to determine firm conclusions (Higgins & Green, 2011).

4.3 Implications for practice and recommendations for future research

The studies included in this review provide a good starting point for further development and investigation for the use of cognitive skills programmes with MDOs, as the cognitive skills groups described in this review are novel evaluations with MDOs in secure settings. Furthermore, the findings seem to differ between samples with differing patient characteristics and level of security (Yip et al., 2013). In addition, methodological issues have been raised, which can impact upon the reliability of the study's findings.

Future studies should aim to identify those MDOs who benefit most from participation (Clarke et al., 2010). One way to achieve this might be to identify patient's specific deficits because specific deficits differ according to diagnosis (Matthys et al., 1999). Further, PDs should be formally assessed because different PDs may show different treatment effects depending on their cognitive profiles (Hodgins & Cote, 1993). Relatedly, McMurran et al (2001) recommended researching problem solving profiles first in order to better suit the needs of the individual and not to apply the same model to all.

McMurran and Theodosi (2007) reported that it was also important to minimise drop-out from offending behaviour programmes as research has indicated that those who do not complete treatment display higher rates of reoffending compared to those who do not engage in treatment at all.

In order to minimise drop-out, it is first of all important to identify predictors of treatment drop-out. Secondly, to develop methods to maintain engagement, as this will have implications for the selection of participants for treatment and the management of high risk patients (Rees-Jones et al., 2012).

To minimise drop-out Young et al (2012) suggested that the combination of individual and group sessions may contribute to maintaining engagement. NICE guidelines specifically recommend that for DSPD patients it is necessary to provide supplementary one-one sessions and to extend the duration of an intervention (National Collaborating Centre for Mental Health, 2009). Further, Meshola-Gately et al (2009) reported that MDOs are a complex group of people and those with schizophrenia are associated with moderate to large cognitive impairments. Therefore, Cullen et al (2012a) suggested breaking the programme down into shorter modular components; building therapeutic alliance and motivational interviewing to help improve retention.

Relatedly, Young et al (2010) found in their study that most the refusers were from a high security setting and suggested that these settings should focus more on the 'readiness' of individuals to attend programmes in the first place (i.e. motivational work). Whereas in medium security (i.e. high drop-out) the focus should be on working to ensure participants complete programmes (i.e. include intensive team-building exercises to boost morale, motivate and to ensure participants are supported).

Jotangia et al (2015) and Yip et al (2013) reported that characteristics associated with non-completion and which may have influenced outcome (i.e. IQ, self-esteem, impulsivity and psychopathy) were not investigated. Gudjonsson and Young (2007) suggested that a qualitative study would be helpful to explore the factors associated with treatment retention in MDOs and may inform whether some individuals would benefit from preparatory precursor treatment.

This review identified that research was now emerging with female MDOs However, only two studies were identified and further research is required to establish the effectiveness of cognitive skills programmes in this population.

Moreover, specific interventions and assessments are needed for females because Blanchette and Brown (2006) reported that there is a gender disparity for violent crime reporting that violent offending by females appears to be more relational or covert in nature (e.g. harming others through threat of damage to relationships) compared with the overt aggression observed in males (e.g. actual or threat of damage). Thus, Jotangia et al (2015) reported that this may not have been captured by the measures used to assess these constructs. Further, Suter et al (2002) suggested that the experience of anger in female offenders may relate to psychopathological factors than criminological, asserting that anger-related changes in female MDOs may be difficult to achieve through a

cognitive skills intervention until psychopathological symptoms have been treated.

There needs to be a prolongation of high-quality research to examine the effectiveness of cognitive skills groups with MDOs including: evaluations should use a larger and more rigorous trial to determine the impact of cognitive skills programmes; a RCT design to reduce the potential for confounding variables; to use objective and standardised measures for this population, as well as to include reconviction data; samples from a range of settings including multi-site investigations; to include both male and female patients in studies; informant reports of behaviour and collateral review, to use control groups and conduct a longer follow-up period to see how patients have progressed in terms of rehabilitation and recidivism (Jotangia et al, 2015; Young et al., 2012; Clarke et al., 2010; McMurran et al., 2001).

Programme evaluation could be also extended to different offender populations (i.e. Learning Disability) to establish if the shorter R&R2MHP programme is responsive to the needs of these groups (Rees-Jones et al., 2012). Relatedly, given the heterogeneity and complex needs of MDOs, cognitive skills programmes such as R&R/ R&R2MHP might be considered as one part of a wider treatment pathway in forensic services (e.g. to incorporate R&R in the early stages of treatment to facilitate the development of pro-social skills necessary for successful engagement in other psychological therapies (Gudjonsson & Young, 2007).

4.4 Conclusion

The findings across the studies provide some support for the suggestion that MDOs across secure settings can benefit from cognitive skills programmes; that MDOs can learn social cognitive skills and thinking styles to support pro-social behaviour and reduce anti-social behaviour

(Cullen et al., 2012a). However, more thorough research is needed in this area for robust findings to be made.[1]

Yip et al (2013) signifies that there is a demand for cost-effective solutions for treating MDOs and group interventions are a recognised target for development. R&R2MHP is considerably shorter than R&R, and it is thus more resource and cost effective; less labour intensive for both participants and facilitators and has higher completion rates which is associated with lower reconviction rates (Rees-Jones et al., 2012). However, it will be important to further investigate the relationship between the length of programmes; that is dosage and treatment effectiveness (Bourgon & Armstrong, 2005). In addition, the revised edition of R&R is in its infancy and its contribution to the treatment of offenders needs to be further investigated (Young et al., 2010).

[1] This systematic review was presented as a poster presentation at the LINK 16 student-led interdisciplinary research conference (East Midlands Conference Centre). See Appendix 8)

CHAPTER 3

A QUALITATIVE STUDY EXPLORING INTELLECTUALLY DISABLED OFFENDERS' EXPERIENCE OF A THINKING SKILLS OFFENDER PROGRAMME, AND THEIR PERCEPTION OF ITS IMPACT ON FACTORS CONTRIBUTING TO THEIR OFFENDING BEHAVIOUR

ABSTRACT

Mainstream offending behaviour programmes, such as Enhanced Thinking Skills (ETS) and Reasoning and Rehabilitation (R&R), are often inaccessible to offenders with intellectual disabilities (ID), and therefore these offenders either receive inappropriate treatment or no treatment (Goodman et al., 2011). Utilising semi-structured interviews, this study explored the meanings ten male ID offenders attributed to their experience of a cognitive skills programme designed specifically for individuals with ID (Thinking Skills Offender Programme; TSOP), and their perceptions of its impact on factors contributing to their offending behaviour. Data were analysed using Interpretative Phenomenological Analysis (IPA) and five superordinate themes emerged; '"It's helped me a lot": Group as a beneficial process', '"I've become a better person": Personal growth', '"I'm a changed person": Transforming self', '"I didn't really wanna do it": Facing Adversity', and '"They could learn from us": Share experience'. The findings demonstrated that based on participants' subjective experiences, these individuals were able to effectively engage in the TSOP, conveyed a sense of hope in relation to their treatment, discussed some of the challenges they faced, identified the impact the programme had on factors contributing to their offending behaviour, and expressed the desire to want to share their experiences with a wider audience. Further research to develop effective and appropriate programmes to meet the needs of individuals with ID is discussed, as well as the need to involve participants in evaluating offender programmes.

1. INTRODUCTION

Maladaptive or faulty thinking patterns, also referred to as cognitive deficits, have been linked to recidivism in offenders (Friendship, Blud, Erikson, Travers & Thornton, 2003). Poorly developed cognitive skills in offenders (Ross & Fabiano, 1985) have been identified as criminogenic factors which maintain offending behaviour (Dodge & Frame, 1982; Zamble & Porporino, 1988). As a result of these cognitive deficits, Clarke, Simmonds and Wydall (2004) suggest that offenders are seen as acquiring an anti-social lifestyle largely because they are "unaware of how their thinking is propelling them into difficulties, and…are unable to extricate themselves since they lack the skills to do so" (Porporino & Fabiano, 2000, p. 13).

1.1 Cognitive Skills Programmes

A number of programmes have been developed to help offenders improve their cognitive skills and decrease re-offending rates. The two accredited cognitive skills programmes most widely delivered in prisons are Reasoning and Rehabilitation (R&R; Ross, Fabiano & Ewles, 1988) and Enhanced Thinking Skills (ETS; Clark, 2000). Both programmes use cognitive behavioural modification techniques to replace well-established, maladaptive patterns of thinking with cognitive skills that promote appropriate reactions and pro-social behaviour by teaching offenders to 'stop and think' before acting (Clarke et al., 2004).

Goodman et al. (2011) suggest that mainstream offending behaviour programmes (OBPs), such as the ETS programme which enables impulse control and problem solving skills, could be useful treatment for offenders with an ID. However, they argue that mainstream OBPs are inaccessible to offenders with an ID due to the programme material being too complex, with high literacy and comprehension demands being made of

participants (Davies, Lewis, Byatt, Purvis & Cole, 2004). Relatedly, Loucks (2007) discusses how offenders with an ID are likely to struggle to complete OBPs due to the cognitive or functional deficits associated with their ID.

A review of the literature reveals only a small number of cognitive skills programmes being delivered for patients in medium or high security conditions. Issues of motivation, responsivity and offenders having a combination of mental health issues, ID, substance misuse and personality disorders have been identified as factors that may impede access and engagement in these programmes (Sainsbury's Centre for Mental Health, 2008).

The programmes delivered in secure inpatient settings with mentally disordered offenders (MDOs) include R&R and ETS, and they have been found to be effective in improving thinking styles and social problem solving skills (Donnelly & Scott, 1999; Tapp, Fellowes, Wallis, Blud, & Moore, 2009). However, these programmes were found to have a high drop-out rate, suggesting that they may not be designed to be responsive to meet the complex needs of MDOs (Yip et al., 2013).

More recently, a new and shorter version of the original R&R programme was adapted for offenders with severe mental illness, namely, the Reasoning and Rehabilitation Mental Health Programme (R&R2MHP; Young & Ross, 2007). A number of small scale evaluations suggest the feasibility and effectiveness of these interventions with MDOs (Cullen et al., 2012; Yip et al., 2013), as there was a low drop-out rate and offenders showed improvement in problem solving ability, coping skills, criminal attitudes, and a reduction in disruptive and criminal behaviour (Ashford, Wong & Sternbach, 2008).

1.2 Cognitive Skills Programmes with ID Offenders

The efficacy of the above mentioned cognitive skills programmes with ID offenders are less well established and there is currently a dearth of related research. Within the literature, there are currently five published studies that have evaluated the effectiveness of cognitive skills programmes with ID offenders (Oakes, Murphy, Giraud-Saunders & Akinshegun, 2016; Waugh, Gudjonsson, Rees-Jones & Young, 2014; Kelly, 2014; Lindsay et al., 2011 & Goodman et al., 2011). These studies will be discussed in turn.

Oakes et al. (2016) evaluated a pilot form of an adapted thinking skills programme (ATSP) with 24 male prisoners with ID in three English prisons. Utilising a realistic evaluation, the contextual findings suggested that all three prisons were effective in their delivery of programmes and had a genuine commitment to support prisoners with ID. Mechanism findings suggested that all staff were highly motivated and fully trained as Thinking Skills Programme (TSP) facilitators. Further, the adaptation of the programme followed an iterative process whereby focus groups were utilised to provide feedback throughout the pilot. The outcome showed statistically significant improvements in adapted Locus of Control and the ability of participants to generate assertive solutions to social problems. The evaluation found that ASTP is likely to deliver positive outcomes for prisoners with ID.

Limitations include small sample size, limited generalizability of findings to ID female offenders and in inpatient and community settings and the two psychometric measures used had no formal assessment of reliability or validity. Further, interview and focus group data was not recorded and transcribed for full analysis. Therefore the authors recommended a more robust evaluation using qualitative methods was required. Thus, conclusions from this evaluation must be interpreted with caution.

Waugh et al. (2014) conducted a pilot study of R&R2MHP to ascertain whether it is feasible to deliver the programme to inpatient MDOs with ID through assessing programme completion. Twenty-five male inpatients from two medium secure hospitals received the group intervention and twenty-three (92%) of the patients completed the programme. Waugh et al. (2014) suggested that the programme is accessible by ID offenders, which may be due to the comprehensible content of the programme. However, a limitation of this study is that it focussed primarily on assessing programme completion, and no outcomes were reported on the effectiveness of the programme and how patients benefited from it.

Another recent study was conducted by Kelly (2014), who evaluated the development of a thinking skills programme for adults with ID at risk of offending. The programme is based on the Good Thinking! course (Goodman et al., 2011), which targets socio-cognitive deficits. The study was conducted over a three year period with 20 service users (two women and 18 men) from across inpatient and community settings. Self-report measures and feedback from participants were used to evaluate the programme. The results of the study demonstrate significant improvement in general empathy and perspective taking. However, no improvement was found in relation to impulsivity and locus of control. Feedback from participants was reportedly positive, suggesting that the programme could benefit ID offenders.

Limitations associated with this study's findings include the concern of self-report measures and their accessibility for people with an ID, which limits the reliability of the scores. Further, participants were asked to provide feedback on pre-determined issues (i.e., motivations, content and methods). Thus, important information relating to the participants' experience of the programme may have been missed by not accessing the participants' own perspectives on the programme. There was also the possibility of participants giving socially desirable answers and/or not

being able to be completely truthful due to a facilitator supporting participants through the feedback process.

One of the two studies carried out in a community setting was by Lindsay et al. (2011), who conducted a pilot evaluation of the Social Problem Solving and Offence Related Thinking Programme (SPORT), which is based on established theoretical principles for use with offenders with ID. Ten male participants attended the programme and one self-report measure was used to evaluate their progress. The study's findings showed that participants became less impulsive and more positive in their style and orientation towards social problem solving. Limitations of this study included the small sample size and the use of only one self-report measure to evaluate the outcome.

As mentioned above, Goodman et al. (2011) developed the Good Thinking! course for people with ID in a community setting. Insufficient data were produced to enable a formal evaluation of the programme. Instead, three small evaluations were conducted. The first evaluation (Nathwani, 2003) used structured feedback from four participants. These participants stated that they enjoyed coming to the group and that the material was relevant to their lives. The second evaluation (Benians, 2006) consisted of a small focus group with three participants. All of the participants said that the course had helped them 'stay out of trouble', they had found ways to 'step back and think' before acting, and they benefited from the social component of attending. In 2009, six participants rated their satisfaction with the course, stating that they found peer support, boundaries and skills development most helpful. The limitations include no formal evaluation was conducted to assess the effectiveness of this programme and whether there was an impact on offending behaviour. However, a small focus group was used, which allowed participants' to make sense of the group from their perspective.

Taylor, Lindsay and Willner (2008) assert that while the evidence base is small, it does suggest that the majority of people with mild ID have the ability to engage in and acquire the necessary skills from cognitive behavioural interventions. None of the above-mentioned studies utilised a qualitative approach to explore participants' lived experience (Smith & Osborn, 2003) of the cognitive skills programmes. The focus of research has been on evaluating the content of the group based on outcomes. However, Brocki and Wearden (2006) highlight the need to understand the individuals' account of the processes by which they make sense of their experiences, which is formulated by individuals' subjective reports. As such, the sense ID offenders make of their treatment and how the treatment impacts these individuals remains unclear.

1.3 Qualitative Research on Cognitive Skills Programmes

Clarke et al. (2004) argue that a thorough evaluation of programmes should include outcome and process variables through utilising qualitative methods. This was supported by Friendship et al. (2003), who assert that it should not be assumed a particular intervention has the same benefit for each individual participant, and by seeking offenders' experiences of the treatment process allows a broader view of treatment effectiveness.

It is only relatively recently that qualitative research has been utilised to gain mainstream offenders' perspectives on their treatment experiences. Clarke et al. (2004) conducted a qualitative study examining the experiences of male prisoners who participated in ETS and R&R. In-depth interviews were conducted with prisoners and prison staff at six prisons in England and Wales. The study aimed to explore how programme participants interpreted, made sense of and applied the cognitive skills they had been taught. Clarke et al. (2004) report that the large majority of the sample benefited from participating in the programme and participants felt it was helpful in providing them with skills to avoid re-

offending. Other benefits highlighted by prisoners were the development of interpersonal skills, improved behaviour, increased self-confidence, improved literacy skills, and increased interest in self-development.

In another study, Clark (2006) conducted a qualitative case study with prisoners who participated in the ETS programme. The research involved observing a single ETS session followed by a focus group with six participants. Clark (2006) focussed on the perceptions of those involved in ETS to determine the processes and factors which were perceived as having an impact on the session, as well as the possible effectiveness of the session and the intervention as a whole. Clark (2006) found that factors such as prisoners' motivation, group climate and group dynamics, could affect the delivery of the intervention and therefore may affect its potential impact. A limitation of this study was that Clark (2006) conducted her research exactly halfway through the intervention, limiting group members' ability to reflect on the whole intervention process.

Grant and Ramcharan (2007) argue that within the disability community there were growing calls for over a decade for research that was more inclusive of people with different kinds of disability. The Royal College of Psychiatrists (2004) suggests that the lack of good quality research to support the use of psychological therapies with people with ID is, in part, due to ID being routinely used as an exclusion criterion from research.

However, Nind (2008) argues that impairments experienced by people with ID does not define the individual and their experience, and that they have something to say that is worth hearing and experiences that are worth understanding. Qualitative research can access the accounts of individuals, whose accounts are marginalised (Willig, 2013), and the perspectives and experiences of oppressed groups lacking the power to make their voices heard through traditional academic discourse (Booth, 1996). Further, qualitative research can empower disadvantaged groups

by validating and publicizing their views (Banister, Burman, Parker, Taylor & Tindall, 1994).

Relatedly, interviews are central to qualitative research and it is through this process that information is elicited about people's views and perspectives on the world (Nind, 2008). Clarke, Lhussier, Minto, Gibb and Perini (2005) noted four different challenges when interviewing people with ID. These were inarticulateness, unresponsiveness to open questioning, difficulty generalising from experience and thinking in abstract terms, and conceptual difficulty around time. Therefore, Clarke et al. (2005) used direct questioning without abstract, conceptual or time oriented questions, and worked towards developing a mutually trusting relationship. Nind (2008) concludes that qualitative research with people with ID is challenging, but achievable and beneficial.

1.4 Aims of the Research

To date, there have been no published studies that adopt a phenomenological position to explore the experiences of ID offenders being in cognitive skills programmes in secure inpatient settings, and the impact of this experience on the process of psychological change. Thus, the present study employed qualitative methodology, specifically Interpretative Phenomenological Analysis (IPA; Smith, Flowers & Larkin, 2009) to explore the meanings ID offenders attribute to their experience of the Thinking Skills Offender Programme (TSOP), and their perceptions of its impact on factors contributing to their offending behaviour. By asking individuals to reflect upon this process will allow further insight into the effectiveness of offender programmes from the perspectives of people who have lived through it.

The phenomenon of interest is how ID offenders make sense of their lived experience in the TSOP, which is explored by the following questions:

1) What are ID offenders' experiences of the TSOP?
2) What skills and benefits do ID offenders think they acquire through the process of undertaking the TSOP?
3) What impact do ID offenders perceive the TSOP has had on factors contributing to their offending behaviour?
4) What further support do ID offenders think they need from the TSOP?

It is envisaged that the results of this study will add significantly to the clinical and theoretical knowledge surrounding the impact of cognitive skills programmes on people with ID in a secure inpatient setting. Furthermore, the study outcomes will have practical implications for the future development of cognitive skills programmes for this population.

2. METHOD

2.1 Design

A qualitative research design was used, using semi-structured interviews as a method best suited to ID patients to allow in-depth exploration of perceptions of the experiences of patients undertaking the TSOP.

2.2 Participants

Ten participants with ID were interviewed about their experiences of the TSOP, and their perceptions of the impact the programme has had on factors contributing to their offending behaviour. The TSOP is a Cognitive Behavioural Therapy (CBT) programme based on the Social Problem-Solving Theory of D'Zurilla, Nezu, and Maydeu-Olivares (2002), and was specifically developed for patients with an ID in a National Health Service (NHS) secure inpatient setting. The programme aims to address psychological factors identified as contributing to patients' offending behaviour, including social problem solving difficulties, impulsivity,

criminogenic attitudes, lack of emotional awareness and regulation, and problems with perspective taking and empathy. The group members attended once a week (four hours) for approximately 12 months.

A purposive sampling method was used to enable the recruitment of all patients to whom the study was applicable (Smith & Osborn, 2003). Patients who had completed the TSOP in the last three years or were due to complete it prior to the study commencing were considered against the inclusion and exclusion criteria by the researcher, her supervisor and TSOP supervisors. The inclusion criteria required that participants were male, aged between 18 to 60, convicted of at least one offence, formally assessed as having an ID, and had successfully completed the TSOP. Patients excluded from the study were those who were unable to communicate in English and provide informed consent, deemed to be mentally unwell or expressing suicide ideation, and outpatients.

Altogether 12 potential participants were identified. Two failed to meet the inclusion criteria, as one patient failed to complete the programme and the other had left the service prior to the study commencing. Thus, 10 participants were interviewed.

All ten participants were male and detained under the Mental Health Act (1983, amended 2007). Four of the patients were detained in medium security and the remaining six participants were all residing on low secure units. The mean age of participants was 39 years (*SD* = 11.3; range = 26-56 years), and all were white British. The participants' Full Scale Intellectual Quotient ranged from 50 to 68. Some of the participants had diagnoses of mental illness and their index offences included violence, sexual offences and arson. At the time of interview, some participants had either completed or were engaging in further group work and/or individual psychological work. The demographic and offence characteristics of participants are presented in Table 6.

Table 6: Demographic and offence Characteristics of Participants

Participant No.	Age	Full Scale IQ	Diagnoses	Index Offence
1	38	66	None	Robbery
2	29	57	Anti-social Personality Disorder (ASPD)	Wounding with intent to cause Grievous Bodily Harm (GBH), Robbery
3	31	50	None	Exposure and sexual activity in the presence of a child under 13 years old
4	30	53	Paranoid Schizophrenia (partial remission) Borderline (Emotionally unstable) personality disorder (BPD)	Assault
5	28	67	BPD, ASPD, Obsessive-Compulsive Personality Disorder (OCPD)	Assault by penetration, Theft
6	26	60	Attention Deficit Hyperactive Disorder (ADHD) Autistic Spectrum Disorder (ASD)	Sexual activity with a child under 13 years old
7	49	56	None	Arson
8	49	68	BPD	Arson
9	56	61	None	Buggery with a child under 13 years old
10	50	58	None	Wounding with intent to cause GBH

2.3 Materials

A semi-structured interview schedule (Appendix I) was devised to guide (but not dictate) the direction of the interviews. This was developed by the researcher, reviewed by her supervisors, and took into account the aims of the research and the communication difficulties experienced by individuals with ID. The interview schedule included both open-ended questions (e.g., What have you learnt/gained from being in the group?)

and direct questions (e.g., How would you manage your difficult feelings now?). This was to help break down complex concepts, help participants understand the questions, and prompt and encourage them to talk openly about their experiences (Clark et al., 2005). Further, the interview schedule was used flexibly, allowing issues to be raised that were not previously identified by the researcher, and to investigate further interesting and salient areas which arose (Hunt & Smith, 2004).

2.4 Procedure

Prior to commencing the research, the researcher held a meeting with unit managers and the nursing team assigned to the ten potential participants and presented an information letter (Appendix J) to explain the purpose of the study. They were also presented with a participant information sheet (Appendix K), which was supplemented with a symbolised participant information sheet (Appendix L) and it was explained that staff would use this information to obtain verbal consent from potential participants.

The ten potential participants were then approached by members of the nursing team to be invited to take part in the study. Individuals who expressed an interest were presented with the two participant information sheets explaining the rationale of the study, and ethical issues concerning consent, confidentiality and the individual's right to withdraw from the study. Nursing staff were asked to read the information sheets collaboratively with participants and to discuss the contents. The nursing staff informed the researcher of those participants who gave verbal consent to take part in the study. The researcher then arranged to meet with participants at least 24 hours later.

At this meeting, participant information sheets were reviewed and any questions answered. Written consent was then obtained using a consent

form (Appendix M), supplemented by a symbolised consent form (Appendix N). The consent procedure also involved asking six questions to check the participants' understanding of the study and their capacity to provide informed consent (Appendix O). The symbolised consent form adhered to guidance by Jones (2002) and The Department of Health (2010). They recommend developing individual tailored communication plans for people with ID; to use both words and pictures, short sentences, and to keep documents short in length. All ten participants who expressed an interest in the study provided written consent and answered all the questions correctly.

Semi-structured interviews were conducted by the researcher in an allocated private room within the hospital. Each participant was interviewed once and the interviews lasted between 40 to 80 minutes (average of 60 minutes). The interviews were audio-recorded with the participant's consent. To protect confidentiality and preserve anonymity, each interview was coded and all identifiable information removed from the transcripts.

A symbolised card (Appendix P) was also used in the interview in case participants became distressed. It gave them the option to point to the pictures to express how they were feeling and what they would like to do (e.g., have a break, say if they did not understand something, or if they wanted to terminate the interview).

A blank diary format used in the TSOP (Appendix Q) that encapsulates all of the key stages of the problem solving process was also used as a visual format to aid with communication during the interview. Lewis (2004) found that question and answer formats may be more constraining for people with ID and Clarke et al. (2005) found people with ID struggled to think in abstract terms. Therefore, this diagram helped to reduce the need for participants to hold the key concepts in mind in an abstract way.

Further, research has highlighted how visual representation can help with understanding concepts for people with ID (Department of Health, 2010; The Mental Health Foundation, 2001).

At the end of the interview, participants were each handed a symbolised de-brief sheet (Appendix R) that summarised the aims of the research. They were also given an opportunity to discuss any difficulties experienced during the interview and how they would access support if required.

2.5 Analysis

The data were analysed using IPA, which is phenomenological in that it is concerned with the detailed examination of the individual lived experience and how individuals perceive or make sense of that experience (Eatough & Smith, 2008). At the same time there is a double hermeneutic process, whereby participants attempt to make sense of their experiences, whilst the researcher attempts to make sense of the participants trying to make sense of their experiences (Smith & Osborn, 2015). IPA was deemed suitable, as the research focuses on the exploration of participants' subjective experiences, understandings, perceptions and views (Reid, Flowers & Larkin, 2005) of the TSOP. The idiographic approach of IPA recommends recruiting four to 10 participants, as this allows sufficient in-depth engagement with each individual case, and also enables an examination of convergences and divergences (Smith, Flowers & Larkin, 2009; Smith & Osborn, 2015).

IPA follows an analytic process which is systematically facilitated in a series of steps to allow researchers to identify and integrate themes into meaningful clusters. This is done first within, and then across, cases (Willig, 2013). These steps are outlined in Table 7 below and were used to analyse each of the transcripts.

Table 7: IPA analytic process (Willig, 2013 & Smith et al., 2009).

Step 1	The first transcript was read and re-read. At this stage the researcher noted every initial thought and observation, which included questions, associations, statements, descriptive labels and comments on language. Further, Smith et al., 2009 suggested including 'descriptive comments', 'linguistic comments' and 'conceptual comments'. The information was noted in the left hand margin. Each expression was given a page reference and line number, indicating where it could be found in the raw data transcript.
Step 2	Themes were identified and labelled and were recorded in the right hand margin. The themes aimed to capture expressions, which were similar in relation to experiences and meanings, but more importantly which represented the quality of the participant's experience. Psychological terminology was used to label the clusters.
Step 3	All themes identified in stage two were listed and how they related to each other were considered. This included themes which naturally clustered together and themes which were considered to have a hierarchical relationship. Further, Smith et al., 2009 suggested ways of looking for connections between emergent themes to construct meaningful clusters. These included abstraction, subsumption, polarisation, numeration, and function within the account. These themes were then clustered and labels, which captured the essence of the participant's experience, were given. Continuous checks were made with the transcript to ensure the themes corresponded with what the respondent had actually stated in the original interview.
Step 4	A summary table was produced of only those themes that captured something about the quality of the participant's experience of being in the TSOP. Any other themes, which were not of importance to the phenomena, were excluded. The summary table included cluster labels together with their subordinate theme labels. Quotations relevant to each theme and page and line numbers to where relevant extracts maybe found in the transcripts were also included.
Step 5	This stage involved the integration of information from transcripts, which involved using the summary table for the first participant in analysing the remaining nine transcripts. The original list of themes was used to code the other interviews, which involved the process of adding or elaborating new themes. Themes that emerged in later transcripts were checked against earlier transcripts. As a result of this process an integrated list of themes emerged, which was completed once the final transcript was analysed. Summary tables were produced for each participant and themes that have been added or elaborated were *italicised.* An example of the summary tables for one of the participants' can be found in Appendix S.
Step 6	This integration process generated a list of superordinate themes capturing the participant's experience of the TSOP. Finally another table was produced which included labels of superordinate themes and their subordinate themes. In addition participant number and page and line number were included to help identify support for a particular theme (Appendix T). These themes were used as a basis for understanding and making sense of the participant's experiences.

2.51 Credibility of analysis

The credibility of the interpretations, the analysis process and emergent themes was in accordance with the recommendations by Banister et al. (1994). They discuss the importance of reflexivity in the research process, as it encourages the researcher to reflect upon the ways in which they as a person, and as a researcher, are implicated in the research and its findings (Willig, 2013).

It is inevitable that the analysis will have been biased in some way, as it is the researcher's subjective interpretation of the participants' experiences. Further, the researcher acknowledges that she has previously co-facilitated on the TSOP when working as an Assistant Psychologist, and recognises that this will have impacted upon the analytic process and findings. However, Willig (2013) argues that from a qualitative perspective, the researcher's motivations and investments are not biases that need to be removed, but rather they are conditions which inevitably shape the research and its findings. To ensure minimal impact upon the analysis, a reflective diary was kept throughout the process. This was to make clear how the researcher's interpretations were formed, and reflect upon personal assumptions, and record individual beliefs (Banister et al., 1994).

In order to enhance the credibility of the interpretations and final analysis, a process of triangulation and validity checking was conducted. This involved emergent themes being reviewed and discussed with supervisors and a Clinical Psychologist who has experience in conducting IPA and working with adult offenders with ID. This ensured that alternative perspectives were considered, that the data were not over-interpreted, and the analysis was grounded in the data (Elliot, Fischer & Rennie, 1999).

2.6 Ethical Approval

Ethical approval was granted by the University of Nottingham, National Research Ethics Service (NRES) Committee West Midlands, and West Midlands Comprehensive Local Research Network (Appendices U, V, W).

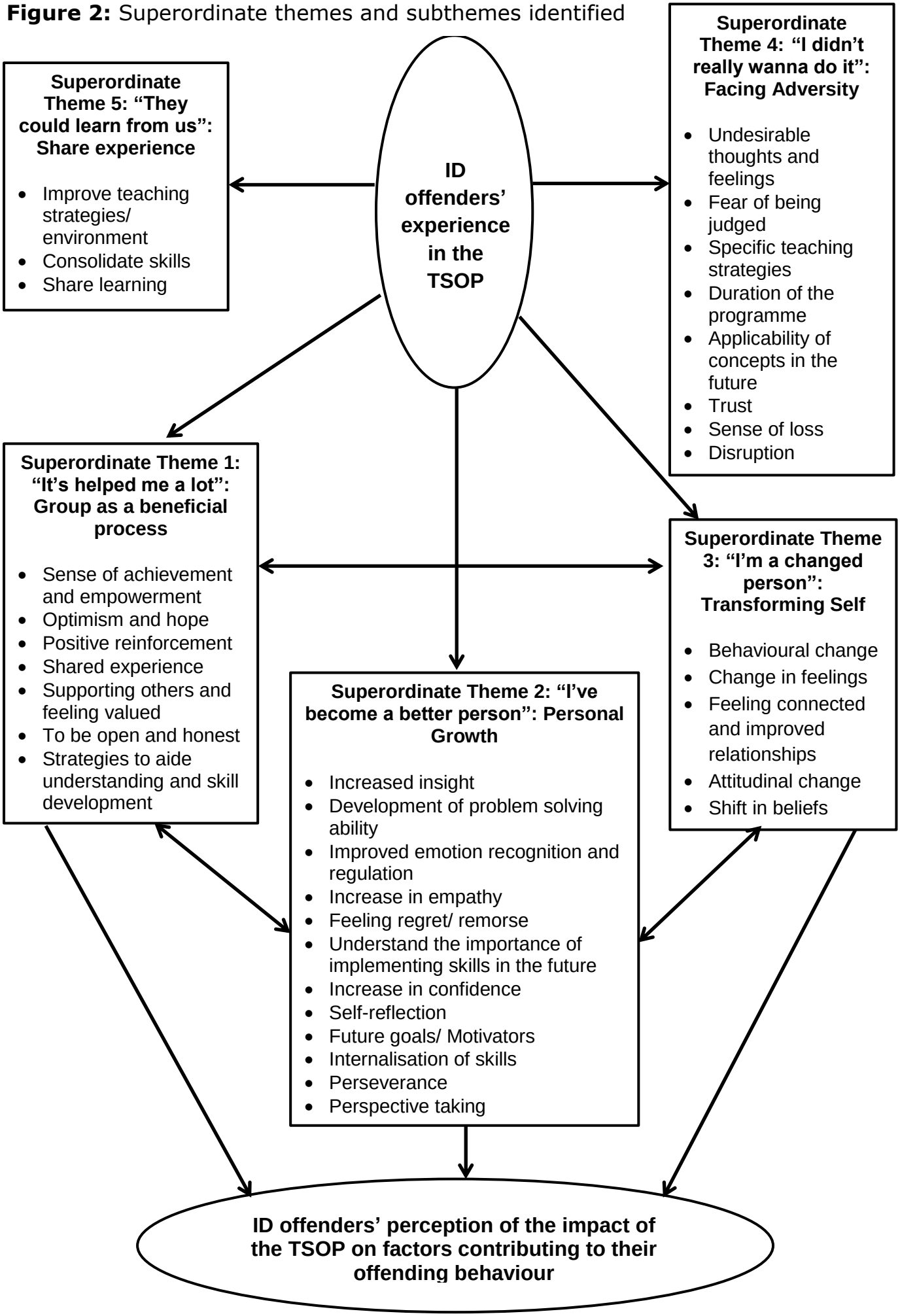
3. RESULTS

Through the process of IPA, five super-ordinate themes emerged with a number of subordinate themes under each to provide an understanding of the ID offenders' experience in the TSOP. The five super-ordinate themes include: '"It's helped me a lot": Group as a beneficial process', '"I've become a better person": Personal growth', '"I'm a changed person": Transforming self', '"I didn't really wanna do it": Facing Adversity', and '"They could learn from us": Share experience'. The five superordinate themes and subthemes are further summarised in Figure 2. The first three themes interlink and offer insight into the TSOP and its relationship to ID offenders' perception of the impact of the programme on factors contributing to their offending behaviour. **Super-ordinate themes** are denoted in bold text, **<u>subthemes</u>** are denoted in bold and underlined text and *transcript extracts* are presented in italic font. An example analysis of a short section of a transcript is presented in Table 8.

Table 8: IPA analysis example

Transcript P1 (pp. 29-31)	Comments/expressions captured	Themes
"Well hopefully I'm gonna be working with my brother-in law when I get out… spend more time with my family… staying out of trouble…I don't want that lifestyle, drugs I want to stay well clear of it now…had enough of it… get out of here as quick as possible, get on low secure and get back with my family…not the person I was two, three years ago…changed person".	Descriptive comments: "*had enough of it"* Linguistic comments: He wants to stay away from the lifestyle associated with drugs. Conceptual comment: changed as a person, may allow him to pursue future plans/goals	Self-reflection on drug use Change in attitude about past lifestyle Shift in belief about changing as a person Future plans/goals when out

Figure 2: Superordinate themes and subthemes identified



3.1 Superordinate Theme 1: "It's helped me a lot": Group as a Beneficial Process

This first theme provides an understanding of how all the participants valued the TSOP. The subthemes reflect the ways in which the participants made sense of their positive experiences. The subtheme **'optimism and hope'** related to four participants discussing how their treatment in a hospital setting differed in comparison to treatment in a prison setting for offenders with an ID. This is reflected by the following comments:

Participant 2: *"…well cause they've all got learning difficulties and prison wasn't my progress and get no treatment there and come here to em [hospital] get treatment." (1, 18-21).*

Participant 10: *"… I mean three years ago I had no hope I was in [prison] but now I'm in [hospital]…" (9, 398-405). "And, I come to [hospital] to do offending behaviour work cause I couldn't deal with it in prison… And I couldn't understand the levels they, they want me to understand… But I can understand 'em more here at [hospital]." (1, 11-20).*

Interviewer: *"So what's the difference between the programmes in the prison service to the programmes that are run here?"*

Participant 10: *"You just, basically you sit in a room for four or five weeks or…"*

Interviewer: *"In prison?"*

Participant 10: *"Yeah. Once or twice a week and they just throw it at you, throw it at, and you don't have time to actually understand it…"*

Interviewer: *"And so here you're saying there's a bit more time then?"*

Participant 10: *"Bit more time, bit more understanding, bit more compassion…" (3-4, 133-163).*

When the participants shared their experiences of treatment in hospital for offenders with an ID, they conveyed a sense of optimism ("*I can understand em more here at [hospital]")*, which in their experience is limited in a prison setting. Further embedded in their narratives were

suggestions that the treatment available in a hospital setting was also more accessible to this population because it was designed with them in mind.

All participants expressed optimism and hope that the TSOP had the potential to help address factors contributing to their offending behaviour, for example:

Participant 5: *"Em, the reason why I went to, went to thinking skills was because I thought it would help me to look at new ways of thinking and look at, look at different things, how to manage things in the day to day life even long term as well… And think more about the right choices I make not the wrong choices and improve my skills a bit more." (1, 17-24).*

Interviewer: *"And what made you decide to go into thinking skills?"*

Participant 8: *"I think I needed help, with certain areas and to look at meself… well one of 'em was me anger actually… And how to cope with other people, and to learn new skills… Which I've never had before." (2-3, 79-93).*

Participant 8 related that he needed to develop himself by addressing issues related to his *"anger",* to learn how to relate to others better and to equip him with new skills to achieve these aims. Similarly, participant 5 asserted the need to develop *"new ways of thinking"* and make more pro-social choices.

Some participants were optimistic that they had addressed some of the factors that contributed to their offending behaviour, including a reduction in "*verbal aggression".* For example:

Participant 5: *"Emm, so since like I've been doing group it's helped me a lot and it's reduced a lot of the stuff what I was like when I first come in and that." (6, 230-231). "…And then when I found out I was doing group and I was progressing through group step by step… And it*

was reducing my verbal aggression as well." (7, 280-285). It's helped me a lot by changing, changing my life around." (36,1648).

Participant 6: *"I think, that thinking skills has made me look into a different day light than I was looking to before… And it showed me not get back into my old lifestyles like." (3, 100-105).*

These participants' narratives suggest that they expressed a transformation in their way of life from the *"old lifestyles"* to "*a different day light"* and *"changing my life around"*, which gave them hope for the future.

Four participants recognised their need for further treatment and were optimistic about their ability to access future treatment following their completion of the TSOP. Others expressed that they had already accessed further treatment, and felt TSOP was the stepping stone to allow them to do this, as it equipped them with the skills necessary to do so. This is reflected by the following comments:

Participant 8: *"Well I'm hoping… After I've done this next course I'm going to do the FS (Fire-Setting programme)…"*

Interviewer: *"So you…recognise the need for further treatment?"*

Participant 8: *"Yeah, yeah…"*

Interviewer: *"Do you think you would have done the relationship course or the FS if you'd not done the thinking skills?"*

Participant 8: *"No…you need to do the thinking skills first… Because you can do a lot of problem solving and how you handle yourself for the next group. Cause you take from the thinking skills onto the next group…That's why I think it's always important to do the thinking skills first." (49-50, 2217-2298).*

Participant 10: *"… Yeah because after, after I got through me group… I started one to one psychology and that's something in my life I would never, never think I could ever done… That's it, I mean to sit there and talk about issues from my childhood, things like that I, I didn't*

even realise it, they were causing me problems, and later adult life…"

Interviewer: *"So you're saying that the actual group helped you then to access more treatment that you needed?"*

Participant 10: *"Yeah absolutely." (5, 203-216).*

The subtheme **'sense of achievement and empowerment'** related to all of the participants recounting a shared experience of how the programme helped them *"actually achieve"* something. For example:

Participant 2: *"I was really proud of myself, pleased… And least I've done something bout getting like my own situations, coping strategies." (15, 660-668). "Ain't been violent. Or abusive anything… And you know that's actually something I actually achieved." (21, 958-965).*

Interviewer: *"Do you feel like you can see things, situations differently now?"*

Participant 6: *"Yeah when a situation arises I can basically weigh up different ideas to deal with the situations properly." (2, 47-51).*

These narratives suggest that participants are "*proud*"" of their accomplishments. Further, they have acquired skills and developed coping strategies, which have empowered them to take initiative and to make decisions to solve problems more confidently and pro-socially.

Eight participants shared accounts relating to the subthemes **'shared experience'** and **'supporting others and feeling valued'**, for example:

Interviewer: *"What's the one thing that you think you've taken away the most?"*

Participant 8: *"Do you know eh, it's the learning experience….And doing it with other people… well…for the first time it was hard…you're getting used to the group as well and the other people on it… But then we bonded, as a group, and we helped each other and I think that's how I got through it…" (8, 326-365). Because… it's that wor, eh network where we trusted each other… and we helped each other out… And I think that's why we all go through it." (9, 383-394).*

	"'Cause I think most people had the same problems, that's it why we bounced off each other." (9-10, 411-424).
Interviewer:	*"And what did you learn from other people from other units then?"*
Participant 8:	*"Their experience…and what the problems they had…"*
Interviewer:	*"And how did that, how'd it make you feel when you were hearing that other people were having problems?"*
Participant 8:	*"Do you know very sad actually… Specially some of 'em. The stories…'Cause it just brought back certain things, what they done and what I went through… But with their support… And it helped." (19-20, 870-915). "To be honest the group was very supportive, some of the group members went through exactly the same… So they would understand… Yeah, it is very powerful stuff." (38-39, 1712-1760).*
Participant 1:	*"I used to help other patients doing, you know how to come get diary together, read it out to em some of em can't read." (8, 338-339).*
Participant 5:	*"I supported people in group trying to give 'em ideas… Trying, also used like some of my experience to er how to help them as well…" (19, 830-856).*

These accounts convey that the participants experienced a strong and *"powerful"* connection, and there was a real sense of cohesion *("bonded as a group").* The group was described as a *"network"* of support, where participants developed trusting relationships, shared learning experiences and *"helped"* and *"supported each other"*, which in turn allowed them to remain motivated and engaged in the group process. In addition, the peer support appeared to be both practical (help with reading) and emotional.

Participants also recognised that they had similar experiences to others, which allowed them to reflect, relate and to understand one another, to learn from each other's experiences, and were thus likely to reduce any feelings of isolation.

The subtheme **'positive reinforcement'** related to all participants receiving support from others, for example:

Participant 4: *"…My family is proud of me…My sister… She knew…I used to kick off all the time and that she say [name] you not to do that brother… You don't have to do that… You have to sort your life out and get out she said see your nieces and that… So sort your life out… Ah, them, that's eh, they helped me to change a lot." (28-30, 1285-1371).*

Participant 5: *"It was group what was keep making me push forward and other staff as well on the unit… so I just carried on listening to group and the tutors and I got through it." (7-8, 319-355). "…And like they [facilitators] come…down on the unit, em, and check if you're ok with your diaries and check how, if you're ok and stuff like that, which is nice." (17-18, 756-794).*

Participant 6: *"K they [family] thought it'd be quite helpful for me to do thinking skills… Because, they're just looking at helping me lower my risks. And that, they want me back at home as soon as possible…" (21, 923-947).*

These narratives suggest that whilst undertaking the TSOP, participants were receiving external and internal support from friends, family and professionals, encouraging and motivating them to successfully complete the programme. This positive reinforcement urged participants to address their offending behaviour through "*lowering my risks"* and suggesting that they had alternative choices they could make *("She knew…I used to kick off…You don't have to do that…")*. Participants were also praised for their efforts and were reminded to achieve their life goals.

The subtheme **'strategies to aide understanding and skill development'** related to how all participants perceived the group as being beneficial due to some helpful identified strategies. These included the self-monitoring tool (diary), role-play, quizzes, specific analogies, use

of fictional characters, reminder cards, group rules, time outs, additional one to one support and follow-up sessions. The strategies that were most frequently reported as beneficial amongst participants were the self-monitoring tool and 'Bert' the fictional character, for example:

Participant 2: *"Em, the diaries were very useful for me… Cause em, you know help me do em like if I have any situation… With any someone else… And then get my diary you fill it out… Either write it or draw it…" (4, 139-177).*

Participant 4: *"The diaries helped me a lot, stopped me kicking off and that, and helped me…to talk to the staff more better." (15, 659-660).*

Interviewer: *"So how's the group gonna stop you from re-offending again and hitting people?"*

Participant 4: *"The diaries… I do the diary… When I feel that, when I getting angry." (39,* 1766-1777).

Participant 9: *"Eh, we had a person called eh Bert… Character… Bert has a lot of problems as well… Em, see what Bert was going through and… the way he was thinking that, em, what could you change."*

Interviewer: *"So you could see what Bert would do differently?"*

Participant 9: *"Yeah."*

Interviewer: *"And how useful was that then having Bert in the group?"*

Participant 9: *"It was great, you know, we done a lot with Bert, and the role plays and that…"*

Interviewer: *"So did you enjoy the role plays?"*

Participant 9: *"Yes, the, yeah I, I enjoyed it a lot eh… I could see what Bert was going through at the times and… Eh, looked like what I felt like that…" (17-19, 738-823).*

Participants' narratives indicated that the self-monitoring tool allowed a number of functions including working through problems they encountered using a step by step approach, to communicate their problems, difficult thoughts and feelings to staff in one to one sessions, as well as allowing participants to express their concerns on paper instead of reacting impulsively to a situation, thus reducing the risk of responding

aggressively (*"stopped me kicking off")* and/or re-offending. Some participants discussed how the diary was more accessible to this client group because they had the option to either write or draw in their responses, which would be beneficial for those offenders with limited cognitive ability.

Participants were able to relate to the fictional character used in the group, as the role-plays allowed participants to try and understand what this character was going through, and reminded them of *"what I felt like"* and what they could change.

The subtheme **'to be open and honest'** highlights the group processes. For example:

Participant 6: *"'K, yeah 'cause they put group rules in place for us to stick by…"*
Interviewer: *"And can you tell me how useful you found the group rules?"*
Participant 6: *"Yeah, the group rules they, made the group environment quite friendly… And safe I'd say." (26-27, 1183-1216).*

Interviewer: *"What made you feel like you could trust each other in the group?"*
Participant 8: *"It was the confidentiality and the safety." (9, 396-398).*
Interviewer: *"Did you find it ever difficult to talk in front of the group?"*
Participant 8: *"At first I did… But there's that trust issue… But then we started trusting each other and that's why we opened up." (21, 926-940).*

Three participants described how the use of group rules "*made the group environment friendly… and safe"* and they *"started trusting each other and…opened up".*

3.2 Superordinate Theme 2: "I've become a better person": Personal Growth

This second theme provides an understanding of how all the participants had self-developed through undertaking the TSOP. The subthemes reflect

the number of different areas in which participants feel they have personally developed.

The subthemes **'increased insight'** showed that all participants' accounts revealed that they had gained insight into their offending behaviour, six participants exhibited an **'increase in empathy'** and seven participants expressed **'feeling regret/remorse'** for their offending behaviour. This is reflected by the following comments:

Participant 7: *"I set fire to my own home… Like cos I was under stress mainly through alcohol with drugs, em… I was drinking every day… I em, couldn't cope em, I had like, I couldn't cope on my own and like em, I needed some support… So that's the reason why I set fire to my own house…" (9-10, 388-413).*

Participant 10: *"Eh, I had a life of eh violence and violent crimes all the way through my life and my childhood." (1, 6-7). "Now I know actually I'm starting to understanding a bit about my life and what, what makes me click and tick kind of thing…" (1, 22-35). "And eh, ah, through thinking skills and one to one psychology it's helped me realise em, steps in my life where I was going wrong." (1, 44-45). "My world, was wrapped round violence… alcohol was a big part of my life… Em, doing what I wanted to do… Taking notice, no, no-one really in my life… And eh, just not listening to people I think that was a big thing for me." (28, 1240-1262). "I used to tense up and I used to get angry straight away … And now, through thinking skills I only realised that was linked to my childhood." (35, 1574-1584).* "*…You* know, sometimes I would get drunk just to look for trouble… Just to let the feelings out which I didn't understand, which I, I understand now more clearly." (37-38, 1673-1706).

Participant 5: *"And it like, even when I first come in I didn't really understand how serious my offence was… I, I feel sorry for that em person… She, she's gonna be scared to be with anybody, she's gonna be scared of going out on her own…" (27-28, 1214-1272). "…I realise it has, everything I do it has an impact on that other person… Em,*

because that pe, person don't feel like the same, and that person, might not be able to sleep at night… And 'as nightmares, flashbacks… and by doing group it helps you to recognise it." (31, 1380-1392).

Participant 2: *"Wish I hadn't done it, you know I do feel bad what I done… And I'm not pleased with myself what I done… And wish I could actually turn back time… But we can't." (27-28, 1227-1241). "Really I found myself stupid and cause doing them crimes I shouldn't have done." (30, 1356-1357).*

The above narratives highlight that the participants had developed good insight into what their behaviour was like prior to being admitted to hospital (e.g., difficulty relating to others, being violent and aggressive, using self-harm). Furthermore, eight of the participants gained insight into the risk factors that they perceived contributed to their offending behaviour (e.g. *"drugs", "get drunk to look for trouble",* poor problem solving ability, *"stress",* difficulties within relationships, *"needed some support",* negative attitude). Relatedly, participants recounted developing empathy through undertaking the TSOP, which allowed them to consider the physical and emotional impact on their victims, whilst others expressed experiencing guilt and regret for their actions.

The narratives also revealed the different types of skills participants had acquired through completing the TSOP. The subtheme **'development of problem solving ability'** showed that all participants' related how they developed the ability to solve problems more effectively, for example:

Participant 1: *"Well learning to use your STOP's… So you don't get in trouble… you don't wanna lose things that you've got… Ground leave, community leave…"*

Interviewer: *"And when you do STOP what does it allow you to do?"*

Participant 1: *"Think… If I do the wrong thing I'm gonna get in trouble… family." (13-14, 586-623).*

Interviewer: *"And what do you think's made you stop being verbally aggressive and, and self-harming?"*

Participant 5: *"It's by learning what I've learnt in group and looking at different situations where you, you weigh different situations up where you can done it more better." (2, 52-57). "The choices… Because that was my problem, I never, I didn't really think I had choices to make...Because it's thinking skills what's changed that …"*

Interviewer: *"So are you now thinking about other choices?"*

Participant 5: *"Yeah, yeah… It, you can have as many choices as you like." (13-14, 580-619).*

The narratives included learning how to stop, thus reducing levels of impulsivity, and to think through their problems and to consider the consequences of their actions, such as losing *"ground/community leave".* The narratives also suggest that participants are now more aware of alternative solutions to their problems, which has allowed them to increase their cognitive flexibility. Some participants discussed how they now consider the pros and cons of choices, which have enabled them to "*weigh different situations up"* and reflect back to assess *"where you can done it more better"* and resolve the problem.

The subtheme **'improved emotion recognition and regulation'** revealed that all participants' related being able to *"recognise feelings",* for example:

Participant 6: *"…Yeah because on the diary you've also got like a scale… Where you can rate it from 1 to 10… So that it shows you how you're feeling and how I can recognise it." (10-11, 448-481).*

Interviewer: *"What's the one thing… that you thought was most helpful in the group…?"*

Participant 6: *"Ok, recognising feelings… And the thoughts as well… Yeah 'cause I've never known how to, tell staff how I feel… But by going on that thinking skills it's meant that I coped differently…"*

Interviewer: *"What happens to you when you get angry?"*

Participant 6: *"Can feel my heart beating faster…'K my legs shake… And I just usually walk round quite fast round the unit…" (13-14, 588-629).*

Interviewer: *"How helpful or effective is it to write down your feelings on the diary…?"*

Participant 6: *"I find it quite helpful. Because if you're too high on the scale to speak to staff then… it shows you how angry you are at the time…"*

Interviewer: *"If you're too high on the scale why don't you talk to the staff?"*

Participant 6: *"Might snap at 'em or might have a go at 'em… So, I just tend to give me time to calm down before I approach a member of staff." (22-23, 999-1017).*

Interviewer: *"And how can you tell from other people whether, how they're feeling?"*

Participant 5: *"By facial expressions, by their body language…" (26, 1149-1174). "… I can recognise my mood, my moods dropping then I know I can go, I, I need to ask for support..." (33, 1506-1508).*

Participant 10: *"Once I get into a temper and get up there I find it very hard to come down, like I get, on a scale of 10 on a diary… But since I went on to this programme they taught me how to try and bring myself down, techniques… Breathing exercises and things like that…" (8, 326-358). "I used to get like, really ridiculously red...." (11, 460-461). "And they taught me at thinking skills it's called fizzy pop effect… And you shake a bottle, you shake a bottle, and just go bang unless you learn to let, you know express yourself, let your feelings out you, you will explode eventually…" (11-12, 494-500).*

Some participants were able to recount an improved ability to recognise their own emotions through becoming more aware of their physiological sensations and early warning signs, whilst others recognised emotions in others *"by facial expressions by their body language".* In terms of regulating their emotions, some participants asserted that they were able to implement the 'stop' strategy when they recognised their bodily sensations, whilst others were able to monitor their emotional arousal levels through the use of the scale in the self-monitoring tool, implement coping strategies, and recall helpful analogies used in group *("fizzy pop effect").*

The subtheme **'perspective taking'**, revealed two participants' discussing how the TSOP enabled them to develop the ability to understand, consider and accept *"other people's points of views"*, for example:

Participant 10: *"Understanding other people's points of view… Definitely that was a big one for me." (26, 1169-1180). "Cause the way I, the way I used to see it, it's my point of view and that's the end of story but I was there and it took me a few months to get into like understanding people's views and all that, then I did, it just clicked with me… At first, at first, I could have been, I wouldn't say argumentative but I did point out and but then I realised, well you know they have got a right to say what they've got to say…which is fair enough." (23-24, 1041-1059).*

This resulted in a reduction in verbal aggression and was likely to improve relationships with others.

Participants' stories showed further skills they had acquired through completing the TSOP. These were revealed in the subthemes **'self-reflection'** **'perseverance'** and **'increase in confidence'**. These were reflected by the following comments:

Participant 5: *"Reflection is to looking at the situation em, the complete situation em on the diary…from the situation from it started til it finished… And, yeah some of the reflections I've looked at on my, my own diaries I've handled it pretty well… But some the situations I've had I could've dealt with it a lot better than what I did." (12-13, 509-561). "…So you reflect on what, what could be linking to your offences what could help…" (31, 1411).*

Participant 10: *"I sit down and I think about, I reflect on it…" (10, 449). "I suppose in some respects I wasn't a nice person, when I look back through my life and, and what I've done through my life… Which is reality but I'm, I'm I've trying to change all that now to become a better person… And I think overall it's just changing my way of thinking,*

change, try and change everything about myself… That's what's really worked for me." (27, 1206-1221). "Aggression was the norm but now I, I've taken a big step back from that… And when I see… other people do it I eh, it still triggers in my mind… sometimes I think God I used to be like that." (33-34, 1505-1530).

Participant 6: *"… It's like, when my money was going missing… I managed to retrieve the card … Felt, felt a bit stressed when, in the process… the other part of my problem was hitting was the appointee… Is where dad is in charge of the card… So it felt like I was hitting a brick wall… K some days I just feel like giving up… K getting advice of the staff… And basically I'm just waiting for them to come back with info..." (7-10, 303-445).*

Participant 4: *"I got a lot of confidence in myself…The group helped me a lot… "*
Interviewer: *"Were you confident before you came here?"*
Participant 4: *"No." (43-44, 1963-1982).*

All participants conveyed developing some ability to self-reflect on themselves, the problem solving process and their offending behaviour, which allowed them to consider how they would resolve their difficulties more appropriately. When two participants described how they managed to either solve a problem or to complete the TSOP, they conveyed a sense that they managed to persevere, despite the challenges they faced. Although only one participant asserted *"I got a lot of confidence in myself"*, this was considered to be important, as he asserted that it was the group that helped him to achieve this.

Other areas in which the participants believed they had personally developed were reflected in the following subthemes to **'understand the importance of implementing skills in the future'**, **'internalisation of skills'** and to develop **'future goals/motivators'**. For example:

Participant 4: *"And the diary, em when we finished thinking skills yeah, I still do the diaries…" (2, 55). "Yeah I still, I still do my diaries when I'm*

out there still, still do my, live outside I'll still do em." (13, 566-567).

Participant 5: *"…I can demonstrate what I've learnt in groups… onto the unit and even into the community when I do eventually get released." (1, 24-26). "Could help to change by learning doing thinking skills an… once you got the concept on where you went wrong or what happ, what's made you re-offend it can help by reflecting back to your diaries how you can change that for the future." (31-32, 1420-1423).*

Interviewer: *"And how often do you use your reminder cards?"*

Participant 5: *"Every day… Emm, I use em every day the reason why because it reflects on things and it reflects on your goals, things and your short term, medium and long term goals." (38, 1709-1721).*

Interviewer: *"Do you still do your diaries from time to time?"*

Participant 10: *"I don't know, I, I actually do it in my head… I got em imprinted in my head…" (13, 555-561). "No I think… if it ever come to me getting into a situation when I was out there… Just gonna go back to like having a diary in me head again… You know, cause it always seems to be there, I can't get, seem to get rid of it…Yeah… Natural is to do a diary in me head, think well, how my feeling, what's the situ, what's gonna be, more so on the pros and cons of everything…" (47-48, 2131-2150).*

Participant 1: *"…I don't wanna come back here I wanna get out of here..." (24, 1066-1067). "Get on low secure and get back with my family." (30, 1356-1357). "Well hopefully I'm gonna be working with my brother in law when I get out…Spending more time with my family." (29, 1309-1318).*

Nine participants related the importance of continuing to implement and practice the skills they had acquired from the group on the *"unit"*, and in future placements, and in the *"community"* through the completion of diaries. One participant asserted looking back at his diaries when he encountered a difficult situation. Relatedly, three participants discussed how they had internalised some of the skills ("*I actually do it in my*

head"), in particular the problem solving diary, which would allow them to instinctively apply their learning when confronted with a problem and reduce the likelihood of them re-offending. Other participants conversed that by regularly using their reminder cards they were prompted to use their skills and in turn motivated them to accomplish future goals they had identified.

3.3 Superordinate Theme 3: "I'm a changed person": Transforming self

This third theme provides an understanding of how the participants perceived they had changed as a result of undertaking the TSOP. The subthemes reflect the areas in which the participants felt they had changed through this process.

The subtheme **'behavioural change'** showed that all participants' related how their behaviour had changed for example:

Participant 10: *"…When I first went on the clinic if I had a confrontation… I would not walk away from it. And that's to do with my pride… But I started to let me pride go a bit now, well he, since I done this group… If I have a confrontation I rather walk away cause I know the consequences of my actions." (9, 364-375). "Cause when I first got to the clinic I was rushing in all the time getting into arguments…. It was slowly through, through my thinking skills programme I really slowed down and my scale went from 8 to 9 for the first five or six weeks… But gradually going down to 7, 6, and by the end of thinking skills I was down to like 1 and 0s… And even I was shocked when I writing my diaries, you know." (35, 1556-1568).*

Interviewer: *"And, has your mom noticed the difference in your behaviour?"*

Participant 7: *"She said like you don't act stupid no more, said like you act more like grown up... You ain't like em, thinking about getting into trouble with the police or anything…" "I feel like more like an*

adult…. Well I've got… unescorted leave to the corner shop now…" (29-30, 1321-1352).

Interviewer: *"Do you think you have changed because of the thinking skills programme?"*

Participant 7: *"Yeah…I don't get into arguments so much… I don't start fighting with other clients; I just get up and walk away…" (34-35, 1531-1562).*

Participant 5: *"It's like I used to get like verbal aggression… Also I used to self-harm but I stopped the self-harming and I've stopped being verbally aggressive as much now it's only very minimum I do it now." (1-2, 45-50).*

Interviewer: *"So in the same situation now if someone was calling you names… So what would you do now then…?"*

Participant 5: *"What I would now is I walk away… Do a diary em, once I've done the diary I go and ask for a 1:1… Emm, and then look and my reminder cards what I've got… Em, and then, g, go for the 1:1 and explain to staff how I… felt and what my thoughts was and what my choices was…" (3, 105-136).*

These narratives relate how participants reported a reduction in violent behaviour, verbal aggression and in self-harming behaviour. Further, one participant related how he had monitored his behavioural change, whilst others described how family members and staff had noticed a positive change in their behaviour *("not kicking off", "not shouting"*) and presented as being more mature *("grown up"*). These accounts also convey how participants have turned to using more appropriate alternative coping strategies to offending behaviour.

The subtheme **'attitudinal change'** revealed that all participants' related how their attitude changed, for example:

Interviewer: *"What else is important in your life?"*

Participant 1: *"Staying away from drugs." (25, 1127-1129).*

Interviewer: *"What about friends that you've known from before?"*

Participant 1: *"Nah no. They're all drug users… Staying away from em… Be hard, I'll do it…" (29-30, 1324-1338). "Suppose I talk to me mum properly. I used to give her an attitude on the phone but it's, now I'm alright with her." (5, 195-196).*

Interviewer: *"You said you didn't have a care in the world, who do you care about now?"*

Participant 1: *"Family… The way I feel…" (30-31, 1366-1373).*

Participant 2: *"'Cause em I will think to myself now, what the point in getting into em fights… That don't get you nowhere." (21, 937-943). "…And going try keep out of trouble and don't re-offend again." (27, 1209). "Keep away from the wrong people." (29, 1296).*

Participant 10: *"… I think I opened my mind instead of just having my mind shut all the time and thinking what I wanted to think I opened me mind and I thought well I'm here for treatment… And I wanna start taking part in treatment." (22, 995-1001). "Yeah, I, I actually get up in the morning looking forward to getting up in the morning… Not thinking am I going get pissed today am I going in trouble, am I gonna wake up in a police station, that's happened eh, in my younger days… And now… I never hope to drink in my life again… And eh, just seems, eh, to me a positive, a positive world… Yeah, positive world instead of the, the negative world I used to live in…" (29, 1289-1320). "…I don't want no more, no more crimes… I wanna just live a normal life which I've never lived…" (36, 1627-1636). "I don't wanna come back here after all this you know…I would've spent like nearly 16 years away… You know, it's a serious amount of time, a serious amount of time." (44-45, 1992-2028).*

The above narratives convey a positive change in participants' attitudes towards their offending behaviour ("*don't re-offend again", "don't wanna come back here*") and perceived risk factors likely to impact on their offending behaviour ("*stay away from drugs",* alcohol, other drug users). Some participants described a positive change in their attitude towards family members, and a more positive outlook on life. Relatedly, participants conveyed making an active choice to engage in treatment *("I wanna start taking part in treatment")* to transform the self.

The subtheme **'shifts in beliefs'** showed that all participants' related how the TSOP promoted them to change their beliefs, for example:

Participant 6: *"But with me playing up hasn't showed me that I can beat the system so I've just knuckled down and just complete my treatment that I'm going down the proper route to get discharge from here." (2, 83-85). "I think I'm a changed person than I was before I come in… Now I can't, calmed down quite a lot… Doing what I'm asked." (31, 1391-1403).*

Participant 8: *"I've learnt lot violence does not solve anything…It's before I did that group I didn't know what do to… But now since I've done that group I know what to do." (34, 1539-1559). "…If you're violent you're gonna go down for a long time… But if you're not violent and you're talking to people and tell them what the problem is… They can sort it out and solve the problem for you, or you can solve the problem." (34-35, 1561-1578). "…At the moment there's too much going on… Like with the community leave, the ground leave… I just cannot get involved." (41, 1864-1876).*

Participant 10: *"Like I do get angry and I walk away, and I think why am I getting angry about it, it's… just minor you know. If I can go back three years it would've been a really big issue for me and I'll have carried on…" (11, 482-485). "…And just not being that person as well, I think that's important cause like, yeah you can carry on being angry and losing me temper… But you don't get nowhere…" (17, 754-760). "…We gotta change things so obviously leave the old life and start moving on… if you feel like drinking go out for a run, feel good in yourself feel good in exercise… If you feel a bit down, you have a talk with someone or if I go into supported accommodation use… the person whose there." (30, 1350-1362). "I thought aggression was the norm… but now… I've taken a big step back from that." (33, 1492-1505). "…I've always said to myself in the past alcohol is always to blame… But it's not, it's, it's totally opposite you're the one picks the drink up… but I never used to recognise that..." (36-37, 1641-1662). "…I wouldn't take cannabis and eh, I mean a lot of people say it's alright, it's not alright when you smoke skank, it affects ya… It affects your mental health and*

eh, I wouldn't do that again." (41, 1838-1843). "…It's easy enough to have things in your life that happen… Trauma, but now it's how you deal with it…." (41-42, 1865-1891).

From these narratives, the participants appear to have shifted in their beliefs in relation to their violent and aggressive behaviour and were starting to take ownership of the change (*"We gotta change things…")*. Participants believed *"I'm a changed person"* and subsequently were able to solve problems more pro-socially following completion of the group. Participants also asserted a shift in belief regarding perceived factors that impact on their offending behaviour. Relatedly, participants shifted in their thinking about treatment and developing beliefs *"just complete my treatment"* would enable discharge from hospital more quickly.

The subtheme **'change in feelings'** revealed that seven participants' related how they experienced a shift in their emotions, for example:

Interviewer: *"How do you think you've changed now you've done the group in terms of your feelings, so you said you're a bit moody what are you like now as a person?"*

Participant 3: *"Bit em happy, bit em cheerful." (16, 719-723).*

Interviewer: *"How do you think you can use those skills then when you go out in the community?"*

Participant 8: *"Well not getting anxious." (25, 1119-1123). "Before I came 'ere… Depressed, suicidal, pissed off, violent."*

Interviewer: *"And at the moment what kind of feelings are you having?"*

Participant 8: *"Happy, excited, everything…'Cause I'm moving on forward… Which I've never had before." (32-33, 1468-1505).*

Interviewer: *"How did that make you feel when you felt like, oh I'm being heard?"*

Participant 8: *"Very relieved…" (36-37, 1651-1675). "Isolated and alone in the past… The network. It's that network is important."*

Interviewer: *"So do you feel lonely now?"*

Participant 8: *"No… Happy…. Excited." (48-49, 2193-2215).*

When participants conveyed their change in emotional experience, they expressed a change from negative emotions to experiencing more positive emotions; feelings which they express they *"never had before"*. These narratives suggest that participants felt more supported and generally more optimistic about life.

The subtheme **'feel connected and have improved relationships'** showed that nine participants' related how their relationships had improved, for example:

Participant 1: *"Me and my mom used to argue on the phone now but we don't argue as half as much now you know since I've done that." (5, 188-189). "Suppose I talk to me mum properly…" (5, 195-196). "I get on better with people now since I done that before I never used to really get on with people." (18, 815-816). "I understand em betta…" (19, 831). "Listen to em… I never used to listen to em before…" (19, 846-850). "If you've got a problem go and speak to the staff…When we was in group people used to say ah if you've got a problem it's like grassing, it's not grassing." (16, 720-725). "Tell staff how you feel." (17, 735). "I, I access my 1:1s I never used to do I mean I used to get rid of em, I don't do em, but now I started doing them…" (16-17, 730-749).*

Participant 4: *"I can respect the women more easier not to kick off an that… I got used to talking to em, trusting em more…" (32-33, 1461-1487).*

Interviewer: *"How has the group helped you to trust people then?"*

Participant 4: *"We had a woman in our group… And I got to know her, I trust her… And when I got used to trusting that female… And that day I said oh, I trust that woman, I have to trust all of em… Like and I been like this all through my life, I don't want that. I wanna get a girlfriend…"*

Interviewer: *"So do you think it was helpful then to have a female in the group?"*

Participant 4: *"Yeah." (25-26, 1112-1192).*

Participant 5: *"…I got support networks in place to help me… I can have support from them, em where it would help if I did ever feel lonely in the future I know I've always got that support, supported network in place." (25, 1130-1137). "I've trust a bit more staff than I first did… again with my family I only keep them at arm's length… I don't have em too close to me."*

Interviewer: *"And you recognise that for you and how difficult that can be?"*

Participant 5: *"Yeah, yeah." (38-39, 1727-1753).*

These participants conveyed how their relationships had improved with family members, staff and patients. They discussed communicating more effectively and being able to communicate their feelings to staff via one to one sessions. Participants also related feeling supported by others as part of a *"network"* thus resulting in them feeling connected, less lonely and less likely to re-offend, given that earlier participants recognised lack of support as a perceived risk factor for offending. Relatedly, trust appeared to be an important factor within these relationships; particularly for one participant, who felt female facilitators supported him to trust females, thus he was now less likely to respond aggressively towards them. In addition, one participant recognised difficult family connections and the risk associated with this and identified that he did not want *"them too close".*

3.4 Superordinate Theme 4: "I didn't really wanna do it": Facing adversity

This fourth theme provides an understanding of the difficulties participants face whilst undertaking the TSOP. The subthemes reveal the different areas of difficulties experienced by participants during this process.

The subthemes **'undesirable thoughts and feelings'** showed all participants relating the difficult thoughts and feelings they experienced

and five participants **'feared being judged'**. This is reflected by the following comments:

Participant 1: *"I was a bit nervous I didn't really wanna do it…" (2, 85). "Horrible at first [TSOP] but like I say once I go into it I was alright…" (4, 156). "Just when you go up to present your diary you got em all staring at you…" (4, 160). "…Suppose I, I prefer it on a one to one basis… I don't like being round other people you know when in group I don't like that I hate it… And then like they judge ya, say how you feel, that's 'orrible." (31-32, 1405-1419).*

Participant 7: *"I completed it and I had a few upsets like, in like, in the group, like. Where I spoke about my offence." (3, 121-122).*

Interviewer: *"What was it like to have treatment… in a group environment…?"*

Participant 7: *"Scary… Scary to like, to talk about your feelings." (5, 193-201).*

Participant 9: *"…Well the first time I went in… Eh, I was nervous… I don't know what the other patients gonna be like … Or the tutors who was in the group… it took months to get right you know get used to people…" (6, 230-255). "…Cause I was that nervous I couldn't open up properly…" (24, 1063-1093). "…Sometimes go wondering where you know, you say things you shouldn't say…And you ashamed… Or you didn't mean to say that you know… And you think well why did I say that… Or I'll try and say the right answer and I can't get the words out right." (66-67, 3027-3044). "And at the time I thought oh I gotta start talking about me offence you know."*

Interviewer: *"And did you have to talk about your offence?"*

Participant 9: *"No… I was worried in case they were gonna judge me 'bout what I'd done…" (27-28, 1235-1277).*

These narratives suggest that some participants found it anxiety-provoking to attend group and to discuss their offending behaviour in front of others. It is likely that they may have experienced high levels of shame and distress, feared being exposed and being seen in a negative light by others. Relatedly, two participants asserted that they preferred TSOP to be on a one to one basis due to fears of other group members

"judging them" about what they discussed/presented in the group and experiencing strong emotions such as "*hate"*. One participant spoke about his communication difficulties due to his intellectual disability, which once again are likely to be related to feelings of shame.

The subtheme **'trust'** revealed participants relating the difficultly they experienced trusting others. For example:

Participant 5: *"…Em because if you, say for instance you have an issue with a client on the unit… And the one who, who's in your group it makes it more difficult in group… Because you can't be honest or you can't open up." (9, 383-398).*

Participant 7: *"They even…sit in the lounge like and…get out the folder so they can like talk about their group…in the lounge, on the homes… And I feel like, why you doing that for?... I feel that's wrong… You're supposed to be keeping it in the group not outside the group…'Cause they could be talking about their offence…And they shouldn't be talking about that sort of thing its confidentiality." (27-28, 1199-1260).*

As mentioned earlier, the majority of participants asserted feeling safe in the group. However, some participants expressed finding it difficult to trust group members from the same unit with whom they have previously had issues, and the fear that some will breach group confidentiality. These narratives convey that subsequently participant's would find it difficult to be open and honest in the group, may feel unsafe and harbour feelings of anger and resentment, which are likely to impact on their group experience and learning.

The subtheme **'sense of loss'** showed participants relating the difficultly they experienced when the TSOP completed. For example:

Interviewer: *"How were you feeling when it was finished?"*

Participant 9: *"I was a bit upset to tell you the truth."*

Interviewer: *"What made you so upset? What did you miss?"*

Participant 9: *"Ah, I think it's missing the, other tutors who was in the group… Got used to some of 'em… when we used to listen to all the different diaries on… All that you know and what happened to the other people em…" (7-8, 302-354). "What am I…gonna do in a couple weeks' time you know… Eh, sit on the unit and…" (30, 1356-1370). "…I've you know I'm gonna miss 'em that's, that's the point you do miss the ones in group." (63, 2855-2856).*

Some participants conveyed feeling upset once the group had terminated. They expressed missing the relationships they built with group members and facilitators, and not knowing how to occupy this time meaningfully. For some participants, such endings may be associated with attachment difficulties and issues with abandonment, resulting in them feeling they have lost the safe and secure environment they described, along with the loss of an important source of support and knowledge.

Other challenges confronted by participants were suggested in the subthemes **'specific teaching strategies'**, **'disruption'** and **'duration of the programme'**. This is reflected by the following comments:

Participant 1: *"…the quiz… Yeah I weren't too keen on it… Just asking questions you know, what's this what's that and I was getting a bit confused with it… The pressure of doing it, I knew what they were but I just nervous in case I got it wrong…" (7-8, 305-323).*

Participant 3: *"…Em role-plays… like I used to find it difficult… Found it hard getting the right sent, getting the words in proper order… Yeah used to get confused remember what's first, what's come after that one…" (8-9, 349-391).*

Participant 9: *"You know, and you're trying to answer this question and sometimes you can't hear what they're said…You know in the building, cause it was a lot of noise then…cause, people was going out…" (55, 2505-2518). "Some of the questions in group, was very*

hard…" (55, 2496-2501). "And doors slamming and I had to kept asking them to repeat the question… But it was too late then or, or he's gone moved on or something like that, you don't get the chance to answer the same question." (55-56, 2522-2527). "…And…don't rush it 'cause they start rushing through to some people, they're not gonna understand it." (59-60, 2668-2669). "You know your mind goes blank… If it goes too quick." (63-64, 2886-2903).

Participant 6: *"K it's jus like one off our unit just refusing to do thinking skills… I found it annoying…And it was too late for him to try and catch up…'k it's like…one minute he'd be in… In one session, next he would miss and then it would go a couple of weeks where he wasn't in… And you'd have him in again, out, in, out… 'K we was just all annoyed, where it was just… Repeating…No and we found that it was hard for us to concentrate on the work..." (19-21, 841-920).*

Participant 5: *"…Some of the blocks it was a little bit too short… block 3 em, was a long… And that had more detail in. I think that's what it would help a bit more." (14-15, 641-662). "I had three follow up sessions… But it would've been nice for em to like, if there was a situation explore it a little bit more to see if you could have changed something on it …It was shorter time… Yeah it was only like probably morning session that was it…" (40-41, 1823-1846).*

Eight participants conveyed that some of the teaching strategies made the group experience more difficult. These included the use of role-plays and the quiz, which provoked anxiety and confusion for some ("*Yeah used to get confused remember what's first, what's come after…")*, especially for those with limited cognitive ability. Further, one participant felt there was too much repetition of the material, whilst another felt there was not enough and that the facilitators moved quickly from topic to topic, impacting upon his ability to answer questions. These experiences are likely to be related to the differences between participants' cognitive ability within the group.

Relatedly, these narratives convey that having disruption such as noise around the learning environment, group being cancelled, and having information repeated due to a group member's lack of attendance, can impact upon participants' level of concentration and processing of information, as well as lead to feelings of anger and resentment. Furthermore, one participant felt the programme was too long in duration, whilst two others related that the programme and the follow up sessions needed to be longer so that information could be explored in more depth.

One further area of difficulty for one particular patient was reflected in the subtheme **'applicability of concepts in the future'**, for example:

Interviewer:	"How do you think you can use those skills in the future?"
Participant 3:	"No can't think of nothing…" (21, 914-926).
Interviewer:	"What kind of things…are gonna stop you from offending again?"
Participant 3:	"Just em, nah don't know." (23, 1026-1028).
Interviewer:	"What kind of thoughts might come to your head to make you stop? What have you learnt from the group?"
Participant 3:	"…Nope my mind's blank." (24, 1063-1066).

As mentioned earlier, the majority of participants asserted that they understood the importance of implementing and applying skills in the future. However, this narrative conveys that this participant struggled to do this, and it was evident from his transcript that he was cognitively less able, and lacked insight into the perceived risk factors for his offending behaviour.

3.5 Superordinate Theme 5: "They could learn from us": Share experience

This fifth theme provides an understanding of participants' desire to share their experience to help others, to improve future TSOPs and how they

could improve themselves further. This is reflected by the following comments:

Interviewer: *"You mentioned the quizzes, how would you want the quizzes to be done?"*

Participant 1: *"On a one to one."*

Interviewer: *"How, how were they done in the group?"*

Participant 1: *"We all sat round a table and they'd just be handing them all out and then somebody'd read the questions out and you'd do it and then they'd mark it later on when you weren't about…" (33, 1468-1482).*

Participant 4: *"… The diaries were better, clearly understand it more better… Em, like, this part here…"*

Interviewer: *"So the first circle?"*

Participant 4: *"That's small… need it bit more bigger to draw that thing what you, you like you had to draw yourself in there… And, this part here too make it bit bigger… The circle… To put things what you stop in there and that… And that, make it more better and make em understand it more clearly for em and that." (50-51, 2275-2318).*

Participant 9: *"…Give the ones who got learning difficult more chance… More support… help the ones who can't, who struggle cause eh, I know because they got learning difficulties like I have… And it's very hard for them to pick up." (57-58, 2595-2643).*

The subtheme **'improving specific teaching strategies/environment'** showed seven participants offering suggestions to improve the TSOP. These included the need for more space on the diary format to draw/write in information. Two participants suggested the need to make the quiz less formal and more interactive, and one participant highlighted the need for additional support for those who were less cognitively able to ensure that the group experience was also beneficial for them. In addition, one participant recommended a quieter environment was needed to make the group experience more enjoyable.

Relatedly, the subtheme **'consolidate skills'** showed how two participants wanted an opportunity to better themselves and receive further support to complete specific sections of the self-monitoring tool. For example:

Participant 8: *"I think it should be an extension version of it."*
Interviewer: *"Like a booster?"*
Participant 8: *"Like a booster…" (16-17, 733-737).*

Furthermore, the subtheme **'share learning'** revealed five participants expressing a desire to impart their knowledge and experience to future group members completing TSOP in order to support them through the process. In addition, two participants aspired to present their achievements and learning from the group experience to different professionals in formal settings, to help others learn from their experiences, which in turn may empower them to utilise their skills to stop re-offending. For example:

Participant 5: *"I would suggest one thing it could help the group is by having people who actually done em thinking skills if they're doing a new one they should get the people whose done it to come in… And offer support." (39, 1759-1765). "…But you should always invite other people who else has been in group… To come in half way through the blocks so they can talk about and try put their input into some ideas what they could use as well." (42, 1904-1912).*

Participant 8: *"Do you know I think, on the group you need a doctor…the doctors just read your reports… They don't see what we do on the groups… And it would be a learning experience for them as well… Mmm the work we're putting in 'cause I don't think they appreciate the work we are putting in... I think the doctors should do half a day… But not in the front of the group, so he's in the background… So he's watching what we do." (52-53, 2345- 2428). "To be hon, I would if it was me I'd give a course to the staff about this actually… We never get our say in front of I don't know psychologists or doctors…*

	I think there should be a big massive thing… All people from outside to come in and listen to us, how we done it…"
Interviewer:	*"Like maybe say like a conference?"*
Participant 8:	*"…We're doing all these groups but we never get our say…."*
Interviewer:	*" And why do you think that's important to let other people know what you're doing and how you're feeling?"*
Participant 8:	*"Because they might not be doing this at other places… They could learn from us… Yeah, from our experience, and how we've done it." (56-58, 2570-2643).*

4. DISCUSSION

Five superordinate themes were identified through exploration of the data using IPA. Some of the themes were interconnected. The participants' accounts suggest that the TSOP is a beneficial experience, as it allows them to personally develop and transform specific aspects of their thinking and behaviour, which participants perceived would reduce their risk of recidivism. The participants' narratives also reflect the adversities they face during their time in the TSOP and recognise the need to help others by sharing their personal experiences.

In the first superordinate theme, '"It's helped me a lot": Group as a beneficial process', participants' experiences conveyed a sense of hope and optimism about their treatment. Some participants' reflections on their treatment in prison allowed them to appreciate the treatment they were receiving in a hospital setting to address their offending behaviour, which was interpreted as being able to meet the needs of offenders with ID and thus participants not feeling excluded. This finding supported those of Goodman et al. (2011) who argue that mainstream cognitive skills programmes are inaccessible to offenders with an ID and subsequently programmes need to be adapted to meet their needs.

The participants also conveyed a sense of personal achievement and empowerment through completion of the TSOP. These findings offer support to La Vigna and Donnellan (1986), who discuss how social problem solving could be perceived as a 'positive programming' approach, empowering people to use desirable/acceptable responses based on problem-solving skills to enhance their quality of life. Further, Kelly (2014) reports that participants value their cognitive skills group and established personally rewarding benefits, including achievement and positive social contact.

Furthermore, the shared experiential claims of participants revealed the benefits of peer support where participants understood that others shared similar experiences to them and that they were able to support one another. Relatedly, participants discussed how the use of group rules established boundaries to create a safe environment to share their experiences with others. This lends support to Goodman et al. (2011), who found participants benefited the most in their group from peer support, boundaries and skills development.

In addition, participants asserted that the use of specific teaching aides, such as the symbolised self-monitoring tool, aided their understanding of the step-by-step problem solving process. This finding supported those of Clare and Mosher (2005), who state that programmes for people with ID should include information presented visually. Remington (1998) also states that the use of symbols can be adapted to facilitate learning.

Participants' assertions of '"I've become a better person": Personal growth' were evidenced in the second superordinate theme, where participants conveyed developing skills in social problem solving. Participants related being able to 'stop' and having time to 'think', thus reducing levels of impulsivity to lead to more pro-social behaviour, to generate and weigh up the pros and cons of alternative solutions, and to

consider the consequences of their actions. Further, some participants conveyed developing the ability to recognise emotions in themselves and in others, whilst others related how they were able to monitor and regulate their emotions through the use of specific teaching aides (i.e., the symbolised self-monitoring tool).

The above findings offer support to Andrews and Bonta's (2010) 'big four criminogenic factors', including impulse control, emotional regulation, consequential thinking and problem-solving skills, which Travers, Mann and Hollin (2014) describe are the targets for cognitive skills programmes to reduce recidivism in offenders. Participants' comments suggest that these factors are addressed successfully within the programme and that different participants gain different benefits from the programme because they had different needs initially.

Further, Jolliffe and Farrington (2004) suggest that offenders with lower intellectual functioning have significant deficits in perspective taking when compared to mainstream offenders. Participants in the current study conveyed developing skills in perspective taking and empathy, and these narratives support the findings of Kelly (2014), whose results demonstrate significant improvement in general empathy and perspective taking. Kelly (2014) reports that the ability to understand the negative consequences of offending behaviour for others can be used as a motivator to avoid anti-social behaviours.

The participants' narratives in the current study highlight that they have developed good insight into the risk factors that they perceive contributed to their offending behaviour (e.g., their negative attitude and choice to consume alcohol), and are able to begin taking responsibility for their actions. Further, some participants conveyed their ability to self-reflect on their offending behaviour, which allowed them to consider alternative ways to resolve their problems, and others discussed how they continue

to persevere to overcome obstacles they face. Thus, these findings suggest that the participants appear to have developed a more internalised locus of control through the programme, which is not consistent with previous research that suggests that people with ID tend to have a more external locus of control (Goodman et al., 2007). However, these findings may be different from previous research findings because this is the first study to adopt IPA to understand ID offenders' experience in a cognitive skills programme, which may have been able to detect such change.

In addition, participants related the importance of continuing to implement and practice the skills they had acquired from the group in the future, whilst others discussed how they had internalised some of these skills. This lends support to Kelly (2014), who also found participants in her study stated that they would use skills they had learnt in the future. Relatedly, Clarke et al. (2004) reports that offenders who have abstained from crime described applying the skills they had learnt in ETS in achieving a pro-social lifestyle after leaving custody (Travers, Wakeling, Mann, Hollin, 2013).

The skills developed in the second theme were reflected in the third superordinate theme, '"I'm a changed person": Transforming self', where participants used the skills they acquired to change their behaviour (e.g., reduction in violence and aggression). Further, pro-criminal attitudes are strong risk factors for criminal behaviour (Andrews & Bonta, 2006), and participants' narratives conveyed a change in their criminogenic attitudes and beliefs, not just in the content of their thoughts and attitudes, but in the way in which they reasoned (Andrews & Bonta, 2010). For example, some participants were able to identify their responsibility in perceived risk factors for offending (e.g., "*alcohol is not to blame")*, understood the impact of these on themselves and others, and were able to shift in their thinking to consider alternative pro-social solutions to manage their risks.

These findings support the evaluations of the R&R2MHP, which also shows improvement in criminal attitudes and a reduction in disruptive and criminal behaviour (Ashford et al., 2008). Clarke et al. (2004) also report that ETS and R&R have improved prisoners' behaviour.

For some participants, the group enabled them to trust others resulting in them feeling more connected and having healthier relationships. This offers support to the findings of Clarke et al. (2004), who report that the non-reconviction benefits for prisoners include improved social interactions with prison officers and other prisoners.

Unlike in the first theme, where a majority of participants claim that the group is a safe and trusting environment, in the fourth superordinate theme, '"I didn't really wanna do it": Facing Adversity', some participants conveyed their fears of being judged by other group members, and not being able to trust them. These fears resulted in participants' experiencing negative feelings such as anger, shame and distress. Further, some participant's reflected on the disruption in group and how this impacted on their learning. This is supported by Clark's (2006) study, which reports factors such as group climate and group dynamics affecting the impact of the intervention being delivered.

Further, one participant's account reflected the struggle he experienced in being able to apply his learning from the group to problems he had encountered or may encounter in the future to reduce his risk of recidivism, whilst others discussed the challenges of specific teaching strategies, which provoked confusion and anxiety. According to Ashman and Conway (1989), interventions should take into consideration the cognitive strengths and weaknesses of the client, and ensure that the participants involved in social-problem solving interventions have a sufficient level of language comprehension to benefit from training.

The fifth superordinate theme, '"They could learn from us": Share experience', conveyed participants' reflections about how they wanted to develop their skills further. This is supported by Clarke et al. (2004), who state that programme graduates report the need for on-going post-programme support in order to consolidate skills they have developed.

Participants also expressed the desire to share their learning, achievements and group experience with other patients and professionals. This was an important finding because research has indicated that often individuals with ID are excluded from research (Royal College of Psychiatrists, 2004) and this experience may have enabled participants to feel empowered to voice their opinions to a wider audience.

4.1 Implications for clinical practice

Travers, Mann and Hollin (2014) assert that cognitive skills training is one of the best evidenced approaches world-wide in terms of its ability to reduce re-offending. The findings from the current study contribute to the existing evidence base by further developing our understanding of ID offenders' lived experiences of adapted cognitive skills programmes and how they make sense of the factors contributing to their offending behaviour. This study suggests that offenders with ID were able to meaningfully engage, personally develop and transform themselves through undertaking the cognitive skills programme specifically designed for patients with ID.

The results from this study have implications for assessing patients' risk, as the study suggests a majority of participants were able to use the skills learnt in the group to understand and consider the impact on the risk factors that contributed to their offending behaviour in order to reduce their risk of re-offending. This lends support to the findings of Lindsay et al. (2011), who assert that cognitive skills deficits are not primary, but

rather contributory, factors to offending, which may prevent the individual from understanding the ramifications of their actions. Lindsay et al. (2011) state that if individuals develop the cognitive and social problem solving skills to understand their behaviour, it may act as a protective factor from future re-offending.

The results from this study also demonstrate that participants are able to engage in qualitative research as indicated by their engagement in the interview process, where participants were able to discuss their experiences, perceptions and views about the group. Thus, the findings offer additional support to Nind (2008), who argues that qualitative research with people with ID is achievable.

Relatedly, the qualitative approach allows insight into the challenges group members faced during their group experience. For example, a number of participants' reported experiencing anxiety related to shame, suggesting future programmes may need to focus on addressing such issues very early on in the programme. It is envisaged that this insight will help inform the development of new programmes for ID offenders or to revise existing ones. This lends support to Clarke et al. (2004) whose qualitative study generated insights to the experiences of offenders and facilitators involved in ETS and R&R, which in turn informed the development of the newly revised Thinking Skills Programme (TSP; Harris & Riddy, 2010).

4.2 Methodological Limitations

The study used IPA methodology and the interpretation of participants' experiences was based on the reflexivity of the researcher. The researcher acknowledges that she has previously co-facilitated the TSOP and that this experience could influence the research process and the construction of knowledge (Banister et al., 1994). Furthermore, it is

possible that other researchers who have had no previous involvement with this group may hold different perspectives regarding participants' experiential claims. Therefore, to reduce this bias the researcher was critically aware of her own experiences, the researcher had no involvement with the groups that participants attended, themes were credibility and validity checked by a Clinical Psychologist experienced in conducting IPA, and a reflexive diary was kept to manage any prior assumptions of the group to ensure that findings were firmly grounded in participants' narratives.

In addition, six of the participants who took part in the research were presented with the main findings of the study (four participants had since left the service). They were presented with a summary of the main themes and subthemes, along with examples of participants extracts (Appendix X). Due to participants ID, this information was also communicated via visual diagrams to ensure feedback was accessible (Lewis & Porter, 2004; Appendix Y). At the end of each meeting participants were asked whether the themes "sounded like what you had told me?" The participants' statements below indicated that the themes were reflective of their experience in the TSOP:

Participant 2: *"The work you've done, it's interesting and it is very good. Yes it sounds like what I told you".*

Participant 4: *"Yes I agree with the research, it sounds like what I said there". It sounds good what you've put in and it will help other people who start these groups".*

Participant 5: *"The information is true and it's really excellent how Rani put this together. It does sound like what I have stated in the information".*

Participant 8: *"This report is excellent, this is the same report as the course I was doing and it shows what I have said".*

Participant 9: *"Everything is in there what I said. I'm very pleased about the findings".*

Participant 10: *"A true reflection. Very interesting to find out other people's perspectives of group".*

The findings of this study are based on a small sample of inpatients with ID in a secure hospital setting, thus transferability from group to group is limited. Also the participants in this study were all White British males. It may be that participants who attend the TSOP from different ethnic backgrounds may provide very different accounts of their experiences.

There were concerns about the reliability of participants' accounts in relation to the passage of time because the participants who were interviewed had completed the programme within the last three years from the time of interview. Some of the participants had since completed further individual/group treatment which may have impacted upon their experience of the TSOP. Despite this a majority of participants' were able to provide detailed accounts of their subjective experiences of the group.

Finally, due to the participants having ID, this meant that at times their accounts were a little disjointed and limited by their cognitive deficits. Further, three of the participants had more pronounced communication difficulties and therefore limited ability to reflect upon their group experience. However, the researcher felt it was important to include all group members who met the inclusion criteria despite their level of cognitive ability, in order to gain as wider a perspective as possible by including different narratives. Thus, this study has provided an opportunity by which individuals with ID were empowered to share their experiences with others. The researcher found that using prompt questions and utilising the symbolised self-monitoring tool during the interview minimised abstract thinking, and supported participants to communicate more effectively. Further, in order to ensure authenticity

and credibility of the data, Brewster (2004) suggests video recording interviews to monitor bias in the process and accessing individuals' views in an on-going rather than one-off process.

4.3 Recommendations for future research

The participants' narratives gained through this research study, suggest that these individuals were able to effectively engage in a cognitive skills programme designed specifically for individuals with ID, and were able to identify risk factors that contributed to their offending behaviour. However, research has shown that there are very few cognitive skills programmes developed for people with ID in the community, in prisons and in inpatient settings. Thus, there is a need to further develop adapted cognitive skills programmes for offenders with ID across each of these settings. This is because mainstream cognitive skills programmes are inaccessible to offenders with ID (Goodman et al., 2011).

This study has also demonstrated that offenders with ID can effectively engage in qualitative research. However, this study is limited to white, male ID offenders in secure settings. Therefore, this study could be opened up to a wider range of individuals including female and young offenders with ID and from different ethnic minority groups. Qualitative research has also been conducted with prisoners without ID, however further research is required to explore the experiential claims of prisoners with ID in a prison setting and individuals with ID in a community setting. This may identify similarities and differences across samples, which will have practical implications for the future development of cognitive skills programmes for this population across the different settings. This research study has been valuable in adding to our existing knowledge base, identifying what further work is still required for offenders with ID, and showing how group content and processes link together to create psychological change from the perspective of offenders with a ID.

CHAPTER 4

ASSESSMENT AND TREATMENT OF AN ADULT MALE VIOLENT OFFENDER WITH INTELLECTUAL DISABILITIES AND AUTISM IN A MEDIUM SECURE SERVICE

ABSTRACT

This case study describes the assessment and treatment of an adult male violent offender with mild intellectual disabilities (ID) and Autistic Spectrum Disorder (ASD) convicted of knife point robberies, and admitted to a medium secure unit for people with ID.

Psychological assessment, formulation and treatment are described. The individual's ID and ASD were considered in relation to his early attachment difficulties, egocentricity, difficulties in developing and maintaining meaningful relationships, deficits in his emotion recognition and regulation and social problem-solving skills.

The Thinking Skills Offender Programme (TSOP), which is a Cognitive-Behavioural Therapy (CBT) based programme, was delivered on an individual basis. The programme aimed to address multiple risk factors contributing to the individual's violent offending behaviour, including developing his emotional awareness; skills to regulate emotional arousal; express emotion appropriately, and develop his social and interpersonal problem solving skills.

The outcome of the intervention revealed that the patient understood the programme concepts. However, due to his frequent disengagement from treatment, he had limited time to practice, implement and consolidate his learning. This was supported by the limited shift in results on the

psychometric measures. However, his care team reported an overall reduction in his aggressive behaviour, and an increase in adherence to care plans. Recommendations were made for further work around consolidation of skills learnt.

Difficulties in assessing and treating patients in secure settings with ID and ASD using orthodox assessments and interventions was identified, as they do not consider the underlying reasons why individuals with ASD and ID may offend. The need for standardised assessments and psychological interventions for this population is discussed.

1. PATIENT INTRODUCTION

To safeguard patient confidentiality, the patient in this case study will be anonymised and denoted to as Mr A. Consent was sought from Mr A using a symbolised consent form and additional questions to check his understanding of the consent process (Appendix Z). The consent form was devised following the guidance of The Department of Health, Social Services and Public Safety (2003) who recognise that some people with ID might lack capacity to make complex decisions. Thus, recommending using pictures, short sentences, and to always check the persons understanding.

Mr A is a 26 year old Afro-Caribbean man who was admitted to this specialist service in August 2012 from a medium secure hospital. Prior to this he was on remand in HMYOI (2007-2009) following his index offence. He was detained under Section 47/49 of the Mental Health Act (1983, 2007) in a 15 bedded Medium Secure Unit for Adult male offenders with an ID, and mental health difficulties. He was serving an Indeterminate for Public Protection (IPP) sentence for two counts of knife point robberies.

Mr A was diagnosed with a mild ID prior to being admitted to the service (Full Scale IQ of 70, as assessed in 2011, in the previous secure hospital using the Wechsler Adult Intelligence Scale-Third Edition; WAIS-III) and a diagnosis of Atypical Autism. Following admission he was referred by the Multi-disciplinary team (MDT) for a Psychological Admission Assessment.

I undertook the Psychological Admission Assessment prior to commencing the Doctorate in Forensic Psychology. This involved conducting a battery of assessments and a clinical interview, and completing the Historical Clinical and Risk Management tool (HCR-20; Webster, Douglas, Eaves & Hart, 1997) to identify:

- Psychological factors that contributed to the development and maintenance of Mr A's violent offending behaviour – *see formulation*.

- Identification of treatment needs and what factors may affect Mr A's engagement in treatment.

A number of recommendations for treatment were made including a referral for motivational work and the TSOP on an individual basis.

2. INTRODUCTION

2.1 ID and Violent Offending

International diagnostic classification systems such as ICD-10 (World Health Organisation, 1992) recommend that three core criteria must be met for classification of an ID. These included:

- Significant impairment of intellectual functioning (IQ < 70)
- Significant impairment of adaptive/social functioning (e.g. ability to cope with everyday demands of their environment)
- Age of onset before adulthood (< age of 18)

It was estimated that in England in 2011 1,191,000 people had a ID (Emerson et al., 2011) and that approximately between 5 and 10% of adults who offended had ID, compared to slightly more than 2% of the general population (Department of Health, 2001). Further, Hodgins (1992) identified that men with ID were four times more likely to have a criminal conviction for violent offences than men without ID.

Aggression and violence poses a major problem for forensic mental health services, and the criminal justice system in terms of colossal social and

economic costs (Howells, Daffern & Day, 2008). Therefore, it is important to understand the causal antecedents for aggression and violence.

Holland (2004) suggested some individuals with an ID have a genetic or environmental basis for their ID, whereas for others their ID may be a combination of biological and psychosocial disadvantage. Thus, when the numerous causes of ID and high rates of co-morbid disorders combine with variables such as family dynamics and social care backgrounds, they predispose, precipitate and maintain maladaptive behaviours (Holland, 2004). Subsequently, there are many different processes and pathways to offending in this population.

Social learning theory has been accepted as important in the causation of aggression (Howells et al., 2008). This includes observing acts of aggression and perceiving aggression to be rewarded (Bandura, 1977) and aggressive scripts learnt through childhood and adolescence (Huesmann & Miller, 1994).

There is little evidence to suggest that there are particular risk factors associated with ID which increase the risk for offending. However, many factors associated with criminality, such as communication and interpersonal disorders, poor understanding of likely consequences of action, a desire to be accepted by peers, poor social skills, vulnerability to exploitation by peers, low self-esteem, poor impulse control and early childhood traumas are seen with high frequency in offenders with an ID (Johnston, 2005). Furthermore, Winter, Holland and Collins (1997) found that factors such as substance abuse, a family history of offending, homelessness and mental health problems were all common amongst offenders with an ID.

Relatedly, those with ID have difficulty in expressing and recognising emotions (McAlpine et al., 1991) and when experiencing strong negative

emotions such as anger, it is expected that such deficits are likely to exacerbate conditions of distress and generate aggressive behaviour (Holt, 1994). Anger has also been shown to be predictive of aggression in psychiatric and forensic populations (Novaco, 1994). Relatedly, Kiely and Pankhurst (1998) found that there were almost five times more incidents of patient violence in an ID service in comparison to a psychiatric service.

Research has yielded some evidence to suggest that social cognitive skills deficits are associated with criminal offending (Ross & Fabiano, 1985). One of these cognitive skills deficits is social problem-solving, which is a cognitive-affective behavioural process by which people attempt to identify ways of dealing with everyday problems (D'Zurilla & Goldfried, 1971). Individuals with ID have particular difficulties in dealing with social and interpersonal problems (Ashman & Conway, 1989). In addition, those with ID have problems with self-control, which affect their interpersonal functioning (Loumidis & Hill, 1997). Relatedly, Keltikangas-Jarvinen (2005) suggested that aggressive behaviour was the result of deficient problem solving strategies.

2.2 ASD and ID

People with ID can also be on the Autism Spectrum (McConnell & Talbot, 2013). Thus, it could be hypothesised that people with ID, who have impairments in cognitive, language and social abilities have some of the same difficulties as people with ASD (King & Murphy, 2014).

ASD is a lifelong neurodevelopmental disorder typified by significant impairments in social communication, social interaction and restricted, stereotyped, repetitive patterns of behaviour, interests or activities (ICD-10 - WHO, 1992 and DSM-5, American Psychiatric Association, 2013).

The characteristics of people with ASD are associated with a combination of cognitive deficits including executive function (cognitive rigidity, appreciating the consequences of one's actions, and generalising learning); theory of mind (TOM; difficulties with empathy and perspective taking); central coherence (appreciating the whole context of a situation rather than irrelevant details), and difficulties in emotion recognition (Sondenaa et al., 2014; Murphy, 2010a).

Approximately 1% of the population has an ASD, and 60-70% of those also have an ID (Brugha, et al., 2012). Furthermore, Atypical autism (the person's behavioural pattern fits most but not all the criteria for typical autism; ICD-10, WHO, 1996), appears more prevalent in those with ID than in the general population (O'Brien, 2002).

2.3 ASD and Violent Offending

Little attention has been paid to ASD and offending behaviour (Dein & Woodbury-Smith, 2010), particularly in the context of ID (Raggi, et al., 2013). A number of studies within UK forensic settings have indicated a prevalence of offenders with ASD higher than that expected in the general population (Scragg & Shah, 1994; Allen et al., 2008; Hare et al., 1999). In contrast Myers (2004) found very low numbers of individuals with ASD in a secure specialist forensic setting but found a higher rate of individuals with ASD and ID.

King and Murphy (2014) conducted a systematic review of people with ASD and the criminal justice system (CJS) and argued that past reviews (e.g. Gomez de la Cuesta, 2010; Mouridsen, 2012) reported some evidence of higher rates of autism within offender populations. However, they noted that most of the research had been conducted in forensic hospital settings. King and Murphy (2014) concluded that those with ASD were not disproportionately over-represented in the CJS, and that there

were a number of methodological issues. These included variation in prevalence rates from 3% to 27% and small sample sizes that were likely to be biased.

Relatedly, Ghaziuddin et al. (1991) and Hippler et al., (2010) concluded that there was no clear link between ASD and violent crime and overall, results from studies suggested that people with ASD were no more likely to offend than other populations (Gomez de la Cuesta, 2010).

2.4 Types of offences

Mouridsen (2012) reported that due to the lack of valid epidemiologic studies of offending in ASD, the types of offending in this population are not known. However, arson, sexual and violent offences are most commonly described (Siponmaa et al., 2001).

Violent offences committed amongst those with ASD, have been identified in several studies conducted in high-security psychiatric hospitals (Hare et al., 1999; Scragg & Shah, 1994). However, a comparison study in Broadmoor Hospital found that patients with ASD had lower violence ratings for their index offence than did patients with schizophrenia or a personality disorder (Murphy, 2003). Murphy (2010b) stated that due to the studies being conducted in High Secure Psychiatric Hospitals, generalisation from these studies to other populations was limited.

2.5 Risk Factors

Although the presence of a developmental disorder does not essentially increase the likelihood of an individual to commit an offence, core autistic features may, under certain circumstances, act as risk factors (Wing, 1997). For example, Howlin (2004) proposed four factors that might make people with ASD more likely to carry out aggressive acts, 1)

increased social naiveté, 2) a disruption of routines, or adherence to rigid rules, 3) a misunderstanding of social situations and poor negotiating skills, and 4) an obsessional interests. This was supported by Barkham et al. (2013) who found interpersonal difficulties experienced by those with ASD contributed to convictions for threatening behaviour.

Furthermore, deficits in TOM in relation to reading interpersonal cues (i.e. body language, facial expressions, tracking others' beliefs and desires), and low levels of empathy may lead to antisocial and criminal behaviour in some individuals (Wing, 1981).

Relatedly, a weak central coherence may make it hard for individuals with ASD to think about the consequences of their actions (Gomez de la Cuesta, 2010) and to hold an egocentric view of the world (Murphy, 2010b). Furthermore, a lack of ability to recognise fear in others may cause individuals with ASD to continue with behaviour that is distressing to others and could subsequently, lead to increased risk of offending (Woodbury-Smith et al., 2005).

Moreover, Clements (2005) suggested that some individuals with ASD experience intense rage as a result of difficulties with not being able to communicate emotions, in interpreting the intentions of others and of being wronged in some way. Murphy (2010a) also suggested that the development of dysfunctional coping strategies to deal with interpersonal conflict contributed to the vulnerability of those with ASD to offend.

Offending characteristics such as psychiatric co-morbidity, substance use disorder and personality disorder were also significantly associated with violent convictions in those with ASD (Langstrom et al., 2009). In addition, adverse life events (i.e. neglect by parents) were also relevant in offenders with ASD (Kugmagami & Matsuura, 2009).

2.6 Psychological Intervention for offenders with ID and ASD

Dein and Woodbury-Smith (2010) reported that there was little research into available treatments for patients with both ID and Autism. Research suggests that CBT can address the risk factors identified in both individuals with ID (Jones et al., 1997) and ASD (Gaus, 2011). However, Jones et al. (1997) recommended that the existing CBT approaches would need to be modified if they were to prove of optimum benefit for people with ID, and to assist in maximising responsiveness (Barkham et al., 2013).

Novaco and Taylor's (2006) research study demonstrated that people with ID can successfully engage in CBT anger treatment in the context of exploring maladaptive automatic thoughts and can generate and weigh the value of more helpful alternatives. Similarly, Lindsay et al. (2011) evaluated a social problem-solving programme with offenders with an ID and found participants reported a more positive orientation towards problem-solving and reduced impulsivity. Further, Lindsay (1999) showed that through adapting and simplifying procedures, people with ID can benefit from interventions that retain all the key elements of cognitive therapy, and in developing social problem-solving and self-regulation skills (Lindsay & Taylor, 2008).

Kelbrick and Radley (2013) suggested that the treatment of ASD was multimodal and could include behavioural interventions to improve social and problem-solving skills and cognitive therapy to enhance self-awareness, theory of mind, emotional regulation and rigid thinking patterns. In addition, Dein and Woodbury-Smith (2010) believed that knowing how to behave in different situations using 'social scripts', was likely to be an integral part of treatment for individuals with ASD.

3. FILE INFORMATION AND CLINICAL INTERVIEW

Mr A's personal history was obtained through psychiatric, nursing and psychological reports, clinical interview and liaison with Mr A's care team.

3.1 Family/ Childhood History

Mr A was the third eldest of nine children. His parents separated when he was three years old, and he had little contact with his father. Mr A lived with his mother up until his arrest.

There was no recorded information available on circumstances around Mr A's birth and early life development. He denied any developmental delays and past reports stated that he and his mother were considered to be unreliable historians, as the accounts they gave about his childhood appeared uncertain, lacking in detail and sometimes contradictory.

Mr A described life growing up at home as "disappointing" stating he felt "unprotected" by his parents, that his mother spent a lot of time at work and so it was his eldest sister and his Nan's responsibility to look after him.

Mr A also reported that he went to live in foster care for 'two weeks', when he was 5 or 6 years old; following a physical assault (i.e. "dad hit me with a belt") when he was accused of stealing some jewellery. He reported feeling "safe" at his foster home and that they bought him "stuff". He reported feeling ambivalent about returning home.

Reports noted that Mr A's mother described him as being "egocentric" in childhood and dated the onset of problems with his behaviour to the age of nine years old. Mr A reported that at the age of 9/10 years old he was part of a gang, who he regarded as "family" as he turned to them for

support, and spent most of his time with them; breaking curfews that his mother had set him. He reported that he and his friends would "drink alcohol, smoke weed, drive around and have casual sex with girls".

By the age of 12 his mother felt she had no control over his behaviour, stating he was regularly stealing from her and he was non-compliant with the household rules. Subsequently, he moved to live with his father between the ages of 12 to 15 years old.

In his late teens, Mr A was reported as having abnormal eye contact and covered his face with his hand, which had continued into adulthood. His mother believed that he had "difficulty expressing his feelings", which could result in him feeling frustrated.

He said that when he was about 13 years old, he started to watch violent movies and started to practice martial arts.

Relatedly, Mr A recalled his mother "throwing him out the house", and being made homeless 8/9 times when he was younger. Mr A's mother told his staff team that she found it difficult to cope with him, because he would 'smash up the house when he did not get what he wanted'.

There was no family history of mental illness or criminality.

3.2 School and Employment History

Mr A reported that he truanted from school to "smoke weed" and that he had detention for "being bad and for not doing his homework". He was expelled from school at age 15 for fighting and left without any qualifications. He has never been in any long-term employment.

3.3 Psychosexual History

Mr A reported no long-term sexual relationships.

3.4 Drug and Alcohol History

Mr A first started to smoke Cannabis and then started to drink alcohol with his friends from 9/10 years old. Mr A reported that he stole money from his mother and offended in part to fund his drug taking. He was also arrested and cautioned for possession of Cannabis (see below).

3.5 Psychiatric History

In prison psychiatrists who assessed Mr A suspected a diagnosis of ASD with dissocial personality traits and he was transferred to a secure hospital for further assessment where the psychiatrists also concluded that Mr A's presentation strongly suggested ASD. However, due to the lack of information regarding his developmental history, it was difficult to give him a precise diagnosis. Therefore, Mr A was referred to this specialist service for further assessment and it was concluded that he had Atypical Autism.

3.6 Forensic History

Mr A's previous offences included:

- 22.04.00 Caution for shoplifting
- 26.06.02 Attempted Robbery
- 19.08.04 Criminal Damage x2
- 19.08.04 Possession of Cannabis
- 10.02.05 Theft from a person
- 10.06.05 Handling Stolen Goods x2

3.61 Index offence

Mr A was serving an IPP (Indeterminate for Public Protection) sentence for two counts of robbery. His offence was also classed as offence against a child, as one of the victims was a minor.

He committed the first offence on 13th February 2007, when he and a friend approached the victim and threatened him with a knife, forcibly stole his mobile, iPod, coat and bus pass. The victim was believed to have ID.

The second offence was the following day. He approached the victim and asked him if he wanted to buy CDs. He then asked him for cigarettes and his mobile phone. When the victim refused, Mr A is reported to have said "don't make me stab you" while he took away the victim's mobile. He also threatened to kill the victim if he told the police. The victim was four years younger than him.

3.62 Mr A's understanding of his offending behaviour

During the assessment, Mr A justified, minimised (i.e. "I only jacked his phone"), blamed others and took no responsibility for his offending behaviour. For example he blamed his victims for setting him up, and attributed blame to his mother stating, "she did not look after me or buy me stuff… the only protection I needed from her was money…. so I had to rob". Mr A also displayed a lack of insight and remorse for his victims, stating, "I haven't got a clue" about how they might have felt at the time of the offence.

Mr A said he stole and sold merchandise in order to buy food, clothes, alcohol, and drugs. In addition he was concerned with getting a "bad reputation'' by his peers stating, "they would think I had no clothes".

3.7 Violence and Aggression whilst Detained in Medium Secure Service

Since his admission Mr A continued to display very similar behaviours to that in prison and at the previous secure Hospital. Staff reported that he continued to be physically violent (i.e. kicking, punching), intimidating and verbally aggressive, including making direct threats to cause physical harm and to use weapons against staff and patients (i.e. "I will put bullets in your head").

4. PRE-INTERVENTION ASSESSMENT RESULTS

Seven assessments were used as pre and post-intervention outcome measures to evaluate the effectiveness of the TSOP. Results can be found in table 8 below and a description of all measures can be found in Appendix AA.

Some of the assessments used in this service were assessed as suitable for an ID population (e.g. Northgate Modifications of the Novaco Anger Scale (NAS: Novaco & Taylor, 2004). However, some measures were not standardised on an ID population and to make them more accessible, pictorial scales and auditory presentations were made to increase retention and comprehension of the assessment tools (Kabzems, 1985). Some measures were used qualitatively and responses were interpreted with caution in order to maintain the authenticity of this study. A good rapport was also built with Mr A prior to administering the assessments, which aimed to reduce any anxieties he may have.

Table 9: Pre-assessments results

Measures	Outcome
Recognition of Emotions (Devised in-house)	Mr A found it difficult to accurately identify all the common emotions portrayed in both the male and female pictures, in particular disgust and fear, which may result in his misinterpreting others reactions. He also found it difficult to describe the parts of the face that identified the emotions, struggled with perspective taking as he found it difficult to explain potential causes of the relevant emotions, and struggled to identify when he had experienced these emotions.
Northgate Modifications of the Novaco Anger Scale (NAS; Novaco & Taylor, 2004)	Over all Mr A's total score for the NAS fell within the 'High' range. He scored 'very high' on anger engendering cognitions (e.g. justified his anger had arisen directly as a result of another's disrespectful manner). He scored 'high' on anger arousal (e.g. likely to have a high emotional response to situations and express this without thinking through the consequences of his actions). He scored 'high average' on behavioural anger (e.g. react impulsively and use verbal and physical aggression). Furthermore, he scored in the 'Low Average' range for regulation, suggesting a limited ability to self-regulate anger engendering thoughts and thinking styles.
The 3 Main identified Problems (3-MIP; Devised in house)	Both Mr A and the staff team identified that Mr A had 'difficulty in communicating with the staff team' and 'issues around mealtime routines'), which were rated as highly problematic. The third problem identified by Mr A was his "offending behaviour", which appeared to be a socially desirable response

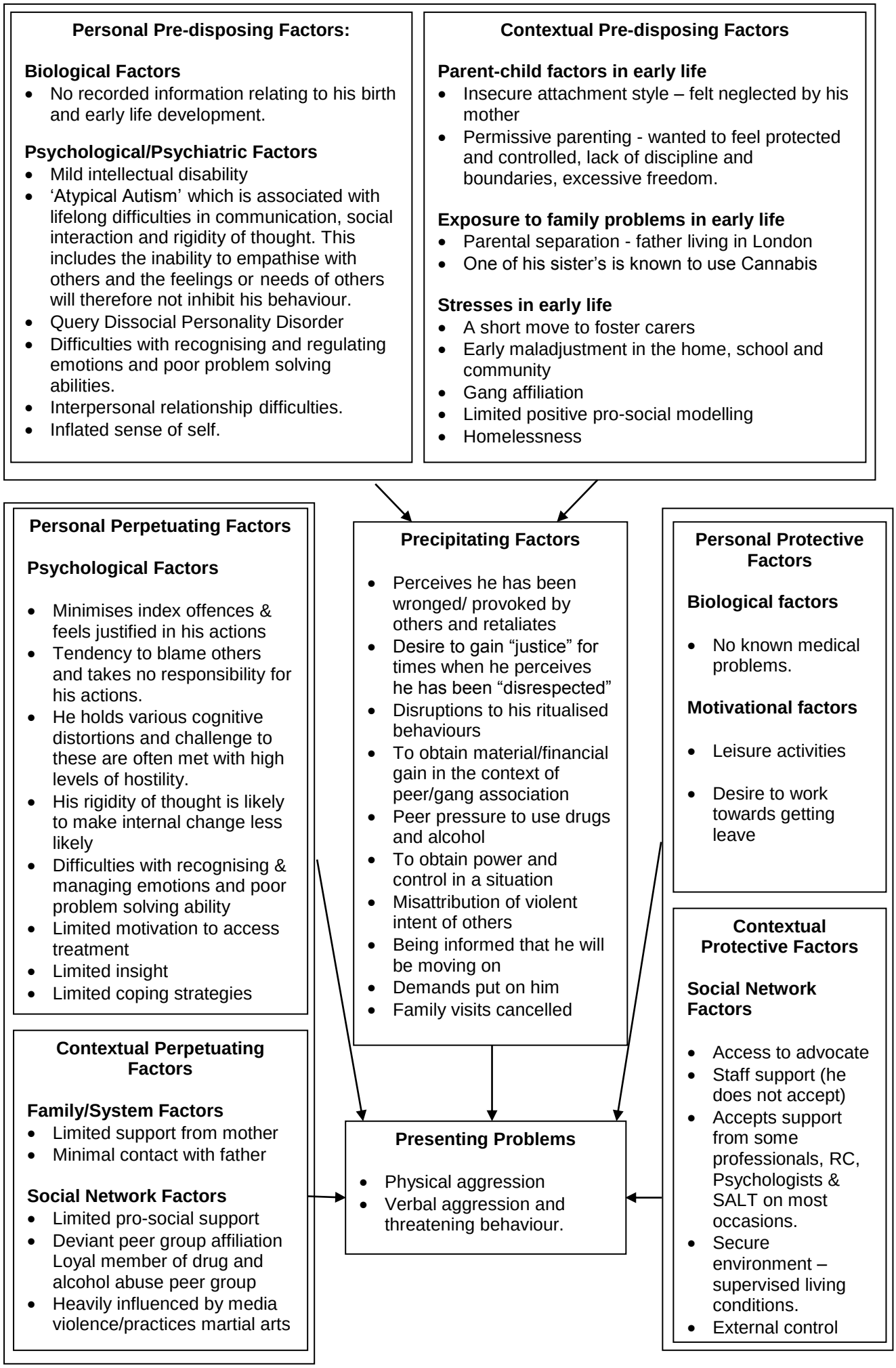
	given his belief and limited insight into the need to change his offending behaviour. The third problem identified as fairly problematic by the staff for Mr A was 'limited interaction with staff and patients on the unit'.
Social Problem Solving Inventory – Revised (SPSI-R:L) – (D'Zurilla, Nezu & Maydeu-Olivares, 2002)	*Positive and Negative Problem Orientation:* Mr A was highly optimistic about his ability to solve problems, but was unrealistic, as he believed he could solve all problems independently. However he had very limited coping strategies. Furthermore, he denied feeling scared or sad/depressed when confronted with problems. *The Rational Problem Solving scale:* He struggled with problem identification, as he did not find out information about his problem; blamed others and set no goals. He needed support with generation of alternatives, as his were limited to writing complaints, ringing solicitor and withdrawing. He also needed support with decision making including weighing pros and cons of choices and evaluating his outcome, because there was no evidence of him checking and reflecting on what went wrong, how he may have felt afterwards and him trying again. *The Impulsive/Careless Style and Avoidance scale:* Mr A's responses were varied in relation to impulsivity, but overall majority of responses suggested he would respond in an impulsive manner (e.g. "goes with first ideas that come to mind", "complain straightaway") and denied avoiding problems.
Barratt	When compared against mixed adult population, psychiatric

Impulsiveness Scale -11 (BIS-11; Patton et al., 1995)	inpatients, and impulsive aggressive prisoners norm groups, Mr A's scores were below the mean scores across all three domains (motor, cognitive and non-planning impulsivity). However, given his violent offence history (which was impulsive in nature), and evidence from reports Mr A was unlikely to consider the consequences of his actions at the time of his offending behaviour and instead was likely to make quick cognitive decisions and lack concern for the future. Thus, it was likely that Mr A was giving socially desirable answers.
Locus of Control (LOC; Nowicki & Strickland, 1973)	Mr A's responses indicated a strong trend towards believing that he has control over his own experiences (internalising). However, his responses were contradictory, as he externalised responsibility by blaming others for his violent offending behaviour.
University of Rhode Island Change Assessment (URICA; DiClemente & Hughes, 1990)	Mr A's identified problem was "aggressive and threatening behaviours at meal times". His readiness to Change score placed him in the Contemplation stage of change. However, the assessment showed that he did not comprehend how treatment could be of benefit; to help reduce his risk of violently re-offending. His motivation was solely related to him wanting to leave this service, as he believed he would not re-offend.

5. FORMULATION

Ingram, Clarke and James (2008) discussed how the Five 'P's model is useful when working with people with ID, as it incorporates a bio-psychosocial model of an individual's presenting difficulties. Therefore, the Five P's formulation was used to understand Mr A's presenting difficulties; identify the factors contributing to his offending behaviour, and to identify treatment needs. These factors are displayed below in figure 3.

Figure 3: Mr A's Violence Risk Formulation (Carr, 1999)



5.1 Presenting Problems

Mr A's risk of physical violence includes punching, kicking and utilising martial arts techniques such as locks and holds. In addition, he has a history of using knives in order to commit offences of robbery.

Mr A also presents a risk of verbal aggression including racist language, threats to cause physical harm, and to use weapons such as firearms against patients and staff.

5.2 Pre-disposing Factors

It is hypothesised that Mr A's violent offending behaviour and presentation were predisposed by a range of personal and contextual factors. The *personal* factors include his biological vulnerabilities, such as an ID. It is likely that Mr A's ID impacted on his cognitive flexibility, social perspective taking, coping mechanisms, and his ability to develop and maintain appropriate social relationships. It is also likely that his ID specifically impacted on his emotional understanding, recognition and regulation and problem solving abilities. Additionally, he holds a high level of anger engendering thoughts, a strong emotional response to provoking situations, and an impulsive response style using aggression and physical confrontation when provoked.

Mr A's ASD is highly likely to have had an impact on his thinking style and the way in which he learns from his experience. This is because he is limited in his ability to generalise his learning and to gain insight from his experiences. He also has limited theory of mind, which affects his ability to see the perspective of others and therefore is likely to misinterpret events, situations and the intentions of others. Relatedly, the inability to empathise with others, and the feelings or needs of others will make it difficult to inhibit his behaviour. Furthermore, he does not understand his

responsibility in relation to his offending behaviour and therefore believes that he will not offend again.

The assessment findings, in keeping with those from previous assessments in prison suggested that Mr A's presentation could be consistent with dissocial/ anti-social personality traits. He presented with grandiose ideas about himself and his future employment, displayed shallow affect, disregarded the rights and needs of others, and did not learn from his past mistakes. This was discussed with the MDT, and the responsible clinician agreed to investigate this further.

Mr A also presented with an inflated sense of self. Baumeister, Smart and Boden (1996) suggested that individuals with inflated views of self, and favourable self-appraisals that are unstable and dependant on external validation are the ones most likely to lead to violence. They argue that people who regard themselves as superior beings, as in the case of Mr A, might feel entitled to help themselves to the resources of others, who they perceive to be inferior. Furthermore, when favourable views about one self are questioned or challenged, or, as in the case of Mr A, the person feels disrespected, then they are more likely to respond with violence and aggression towards that person.

A number of *contextual* factors were also hypothesised as having a contributory role in Mr A's offending behaviour. Mr A's early developmental experiences were marked by many adverse life experiences including parental separation, a short move to foster carers, being made homeless on numerous occasions, and attachment difficulties with his primary caregivers. Mr A described an insecure attachment style to his mother, whom he perceived neglected his needs. Furthermore he reported not feeling protected by his mother and that he lacked discipline and boundaries as he was permitted excessive freedom. Research shows that without proper guidance from parents, young children do not learn to

regulate their own behaviour and that children of permissive parents tend to be impulsive and aggressive (Bjorklund & Blasi, 2012; pg. 529). Furthermore, children who have experienced little warmth from their parents and who have either been harshly disciplined or had little or inconsistent supervision develop adjustment problems (Carr, 1999).

It is thought that during these experiences the necessary emotional containment required by Mr A may have been absent or limited. This is likely to have impacted his ability to regulate his emotional experiences, and negatively impacted his attachment experiences, which is likely to impact his ability to form appropriate attachments in adult relationships.

In addition, Mr A began experimenting with drugs and alcohol from 9/10 years old. According to Kandel and Andrews (1987) the young age of onset may be related to lack of consistent parental supervision and consequences for rule breaking, which can later lead to habitual drug taking. Mr A said he was first introduced to Cannabis by his eldest sister but this soon developed into habitual drug taking, when he formed deviant peer associations as part of a gang.

Mr A associated himself with a gang from a very young age. He regarded these peers to be "family" because they provided him with support throughout his childhood. It appeared that the gang was a very important part of Mr A's life, and therefore, it was important for him to fit in and to be accepted. However, an association with such a gang, modelled and reinforced anti-social behaviour and offending, as Mr A reported he had a reputation to uphold. In addition, as he spent increasing amounts of time with his fellow peers, it was noted that there was an escalation in his violent offending behaviour, in order for financial gain, to obtain drugs and alcohol, increased status, power, and the possibility of protecting himself from further bullying and assault by his peers (see below). Mr A grew up with limited positive pro-social modelling from friends and family.

Wood and Alleyne (2010) discussed how the association with delinquent peers provided a youth with an opportunity for criminal learning and criminal involvement. In addition, the youth was likely to develop pro-aggression beliefs and attitudes that, in the presence of pro-aggressive reinforcement (e.g., peer approval), will result in positive appraisal of personal aggression.

It is hypothesised that Mr A's ID, Autism, inflated sense of self and insecure attachment style had impacted on his ability to form and maintain appropriate meaningful emotional connections and trusting relationships with others. For example, he felt 'unprotected' by his parents and stated that 'money' was the only protection he needed from his mother to stop him offending. Mr A considered family/friends 'buying him stuff' was a way of them showing that they cared for him, rather than having an understanding of emotional closeness.

Mr A also found it extremely difficult to maintain long term intimate relationships, stating, 'robbing people' meant he did not have time to sustain a relationship, as the latter was more important.

Relatedly, Mr A did not appear to have a close emotional connection with any of his peers in his gang, instead he discussed the material gains he had made through this affiliation. Also, there were occasions when he had been bullied and did not feel listened to by fellow peers. It is hypothesised that Mr A's offending behaviour may have been a way in which he could relate to his peers and to be acknowledged and respected.

Furthermore, Mr A had an inability to manage relationships with both staff and patients/prisoners during his time in detention. Mr A was hierarchal between staff teams and would communicate more effectively with professionals in authority who he considered had a direct influence on his

treatment. This included the Ministry of Justice, doctors and psychologists. He disregarded the nursing team, as he was unable to understand how they were supporting him with his treatment. Thus, impacting upon his ability to develop a therapeutic working relationship with the staff in order to meet his treatment needs.

These personal and contextual deficits are likely to have impacted Mr A's expectations of others and his ability to form and maintain healthy and secure adult friendships and intimate relationships.

5.3 Precipitating Factors

It was hypothesised that there were a number of factors implicated in precipitating Mr A's violent offending. For example when he perceived he had been wronged/provoked "disrespected" by others, disruptions to his ritualised behaviours/ routines, to obtain material/financial gain, status in the context of peer/gang association. See figure 1 for further examples of precipitating factors.

5.4 Perpetuating/Maintaining Factors

A number of *personal* psychological factors are hypothesised as contributing to the maintenance of Mr A's offending patterns. Notably, the enduring impact of his ID and his Autism and the associated deficits outlined above. Furthermore, a lack of social and emotional development triggered by marked difficulties with social problem-solving, impulsivity, emotional dysregulation and anger control deficits. In addition, he had limited insight into his offending behaviour; limited motivation to access treatment to address his offending behaviour, which when coupled with his cognitive distortions and tendency to make impulsive decisions has resulted in expressions of aggression and violence.

The cognitive distortions held by Mr A had been entrenched from an early age, and implicated in maintaining his belief system; he had a tendency to blame others; took no responsibility for his actions; minimised his index offences and felt justified in his actions. Relatedly, he believed that he was justified in using restraint against staff and patients, as he believed this was self-defence and was "legal in the eyes of the law". Thus, any challenges to these distortions were often met with high levels of hostility. Moreover, Mr A's rigidity of thought, associated to his autism, was likely to make internal change less likely.

Mr A lacked effective coping strategies when faced with adversity, and instead drew on maladaptive coping mechanisms (e.g. withdraw from treatment and increase in isolation). His lack of understanding and awareness of the treatment pathway impacted upon his engagement in treatment and maintained his resistance to engage with certain professionals, namely nursing team.

The *contextual* factors that contributed to maintaining Mr A's offending behaviour were his insecure attachment to his mother, permissive parenting style and parental separation. It is likely that these factors have led to an absence of pro-social modelling. Through his past experiences, particularly inadequate and permissive discipline and boundaries and anti-social relationships, Mr A was likely to have developed immature defence mechanisms, predominantly acting out, verbal aggression and hostility.

Aspects of Mr A's social network are also thought to be implicated in maintaining his offending. He has a very limited social support network and pro-social relationships. It is of note that Mr A appears to be emotionally isolated and his social skills deficits related to his Autism have limited his ability to successfully form and maintain these relationships (e.g. being victimised by patients on the unit). This is also likely to be

exacerbated by the nature of the unpredictable environment on the unit and being in close proximity to others.

However, the few social relationships that Mr A has been able to develop have been with deviant peers, and Kazdin (1995) suggested that when youngsters with substance-abuse problems are members of a delinquent or drug-abusing peer group, then interactions with these peers may maintain the youngsters' problem behaviour through modelling and reinforcement. His violent robberies are likely to be regarded attempts to fund his drug habit, as well as attempts to be socially accepted by his peers.

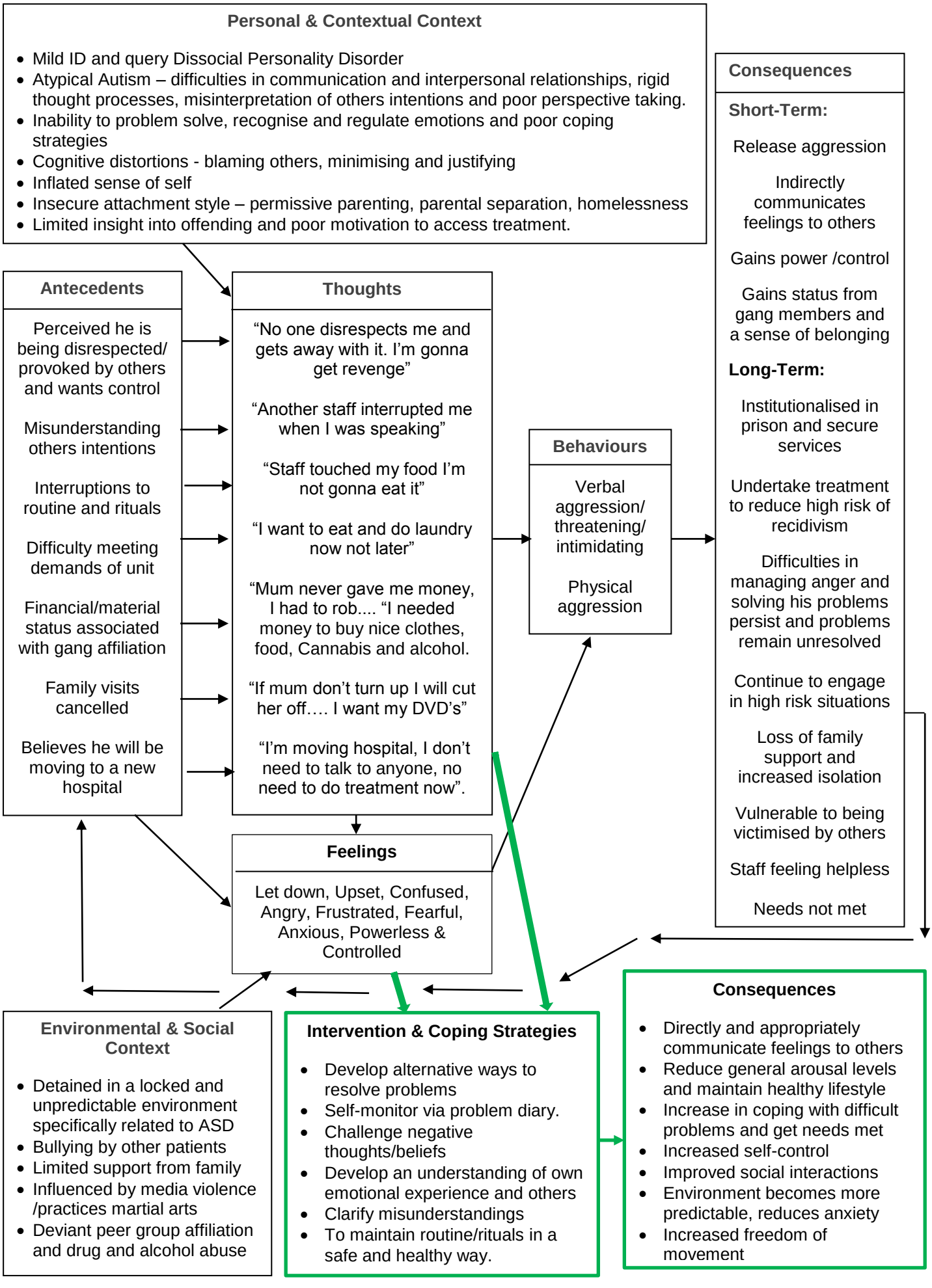
In relation to media violence and Mr A practicing martial arts on a daily basis, it is likely that such practices would have influenced and reinforced Mr A's violent beliefs. This is supported by social learning theorists whose evidence for exposure to violence on television is consistent and convincing based on a range of different studies (Howells et al., 2008).

5.5 Functional Analysis

By incorporating information from the five 'p's model, it is helpful to use McGill, Clare and Murphy's (1996) cognitive-behavioural approach to understand aggression with ID, to help understand the motivation and factors likely to influence behaviour, and how negative thoughts and feeling may have maladaptive consequences.

Figure 4 illustrates a functional analysis of how Mr A's perpetuating factors maintain a relationship between thought processes, feelings and behaviour.

Figure 4: Functional Analysis (McGill, Clare & Murphy's, 1996)



As listed in figure 4 above, Mr A had a number of precipitating factors for his physical and verbal aggression. For example when he perceived he had been wronged/provoked and "disrespected" by others. These factors resulted in Mr A thinking "no one disrespects me…I'm gonna get revenge" and experienced emotions which he found distressing and difficult to cope with. Subsequently, this led to verbal aggression, and when these same triggers were more extreme (significant provocation by peers) then physical aggression was more likely.

In the short term these behaviours would leave Mr A gaining a relief from his negative emotional experience, which would in turn indirectly, communicated his feelings to others. Furthermore, he achieved a sense of power and control through getting revenge on individuals who he perceived disrespected him.

Long-term Mr A was consequently incarcerated and remains in a medium secure setting. His difficulties in managing his anger and solving his problems remained unresolved, thus he continued to have difficult thoughts and feelings and continued to engage in violent episodes on the unit, and staff reported feeling exhausted and helpless in their efforts. Relatedly, individuals who felt threatened and intimidated by his behaviours would attempt to bully Mr A and he was at risk of being physically assaulted by them. In addition, Mr A would continue to feel isolated, and not gain things he wanted such as ground leave and to move to a low secure unit. Mr A continued to be deemed as high risk for violently re-offending and required treatment to reduce his risk.

5.6 Protective Factors

Mr A had a limited range of protective factors including engaging in sports (i.e. football) and making music. Mr A was also motivated to engage with treatment to some extent, in order to achieve ground leave. Further,

there was good co-ordination among professionals in his treatment team. Overall, in the absence of external control and monitoring, Mr A presented with limited protective factors to mitigate the level of risk he posed.

The green boxes in figure 4 highlight where the cycle can be interrupted and where coping strategies can be implemented, with an aim to reduce Mr A's violent behaviour.

6. Responsivity issues identified from the assessment

Responsivity is concerned with how an individual interacts with the treatment environment and specific responsivity refers to the individual characteristics of an offender, and how they are likely to engage with an intervention (Andrews and Bonta, 2003). There were a number of factors likely to impact on Mr A's engagement in treatment including the following:

- Although Mr A was highly motivated to engage in treatment (i.e. 'if I complete my courses I can get out') he did not understand how the treatment could be of benefit, and was not concerned with reducing his risk of re-offending because he believed he would not offend again.
- Held rigid cognitive distortions in relation to his offending (see above) and it was likely he would respond in a hostile manner if challenged.
- Limited ability to generalise skills and to create psychological and behavioural change due to rigidity of his thinking linked to his ASD.
- It was anticipated that his progress would be relatively slow due to his ASD.

7. INTERVENTION

7.1 Individual Motivational Work and TSOP

TSOP is a 12-month CBT programme specifically developed for patients who have been formally assessed as having an ID and who have convictions for offending behaviours or who engage in patterns of behaviours that could result in offending. The programme focusses on social and interpersonal problem-solving skills based on the Social Problem-Solving Theory of D'Zurilla, Nezu, & Maydeu-Olivares (2002); D'Zurilla & Nezu (1982; 1990), and aims to address multiple factors identified as contributing to Mr A's violent offending behaviour and thus reduce the likelihood of recidivism including:

- Social problem solving difficulties
- Problems with perspective taking (usually misunderstanding the intentions of others)
- Lack of emotional awareness, understanding and skills to manage or regulate emotional arousal or express emotion appropriately.
- Impulsivity
- Inappropriate or offensive styles of relating to others or getting needs met
- Rigidity of cognitive processes especially when physiologically or emotionally aroused/ under pressure
- Certain attributional/cognitive styles and criminogenic attitudes

Mr A progressed through a number of stages or "blocks" to enable him to develop appropriate social problem solving and emotional management skills:

Stages of TSOP:

- What's going on? (Problem orientation, problem definition, information gathering and goal setting)
- STOP (Impulse control)
- THINK (Generation of alternatives)
- GO (Action)
- Did it work? (Evaluation and reflection)

See Appendix BB for an overview of the blocks.

Due to Mr A's ASD and the need for structure to enhance responsiveness the intervention was adapted and tailored to Mr A's learning needs. This included the intervention being delivered on an individual basis due to his difficulties in relating and communicating with others (Murphy, 2010a); sessions were held at the same place and time (Dein & Woodbury-Smith, 2010); intervention delivered at a slower pace; complex information was broken into simple and clear components; concrete exercises were used (Barkham et al., 2013) and role-play, and visual and symbolised material (i.e. diary and comic strips) was used that were directly related to his treatment to avoid disengagement.

7.11 Participation and Motivation

Mr A attended 27 one hour sessions out of the 35 sessions offered to him between 04th December 2012 to 24th September 2013. He remained engaged and motivated in the intervention for the first few months. However, on two separate occasions he disengaged based on the belief that he would be moving onto a different hospital, thus, he could not see the benefit of engaging in his psychological treatment if he would no longer be staying here. Mr A re-engaged when he was informed by senior professionals that he would not be moving in the near future. A diagram that was developed to illustrate the importance of engaging in his

treatment is also thought to have supported his re-engagement. The rate of progress had been adversely affected by Mr A's disengagement from individual psychological work. This paralleled his pattern of repeated disengagement on the unit.

7.12 Social Stories

Social Stories teach social skills to individuals with autism and related disabilities. They aim to improve the ability to perspective take (Gray, 2004) and to help develop a social understanding of a particular situation, event or activity, which includes specific information about what to expect in that situation and how an individual might be expected to behave. Samuels (2011) examined the use of social stories with adults with ID and ASD and found they improved in social interaction. Although the effect was short-lived, they recommended longer intervention which was context specific to enable permanent change.

Two social stories were created due to Mr A's limited ability to generalise skills he has learnt across different situations; the first to help Mr A make sense of his aggressive behaviour, and the second to help him understand the consequences of his disengagement from treatment. Mr A responded well to the introduction of these Social Stories and engaged positively with staff members during 1:1 sessions to discuss and to try and relate them to everyday interactions.

7.13 Indirect consultation

I worked collaboratively with Mr A's care team to offer advice and consultation in relation to:

- Implementation of the social stories and problem-solving diary; to re-engage Mr A when he had disengaged from treatment and

devised care plans in relation to interacting with others and managing meal times.

- Offered psychological advice to Occupational Therapists and music teacher regarding Mr A's interactional difficulties associated with his ASD.

7.14 Autism Training

I delivered Autism training to Mr A's care team. The training aimed to help staff gain a better understanding of what is autism? How his ASD affects his interactions with others; autism and offending and implications for practice, and what staff can do to communicate, support and interact more effectively with him (e.g. consistency within the team, create a safe and predictable environment for Mr A, and to support staff feeling helpless in their efforts).

Overall, Mr A's care team reported a better understanding of Mr A's autism and his needs. They also reported that they were now communicating better with him, and remained more consistent with the implementation of care plans to help manage his risk. Subsequently, Mr A reported he was starting to engage more with the staff team, as he had noticed a change in the way staff interacted with him.

8. POST-INTERVENTION ASSESSMENT RESULTS

Table 10: Post intervention results

Measures	Outcome
Emotion Recognition	Recognised a few more of the common emotions except fear, and was able to state which parts of the face created the emotion presented. However, he continued to find it very difficult to describe what it was about these parts of the face that helped to create the emotion; struggled with perspective taking and he struggled to identify times when he had experienced these emotions. However, he was now able to imitate emotions with his own facial expressions.
NAS	Total NAS score once again fell within the 'High' range. This indicated that he continued to have significant difficulties with anger engendering cognitions, anger arousal and behavioural anger. His scores on the behaviour element had slightly increased, which may be indicative of truthful responding and/or better insight into his violent behaviour and what constitutes violent and aggressive behaviour. His score for anger regulation remained in the 'Low Average' range, suggestive of limited self-regulatory skills.
3-MIP	Both staff and Mr A suggested that aggressive incidents around 'mealtimes' had significantly reduced due to staff consistency and care plans being put in place, that Mr A was now able to better comply with. Staff reported that there were times when he was able to 'stop' and walk away from provocation and managed his feelings of anger well. Furthermore, they both reported that 'difficulty communicating with the staff team about his problems' had reduced slightly

	because staff felt Mr A was "learning to meet his needs more appropriately" and was utilising some staff support. However, problems with 'limited interaction with others on the unit' remained the same. The staff team understand that this difficulty was likely to be related to his Autism and would be difficult to change, but was more understood and managed.
SPSI-R	*Positive and Negative Problem Orientation* - Mr A remained highly optimistic in his ability to solve problems, despite not implementing what he had learnt; however he now admitted experiencing frustration and feelings of upset when resolving difficult problems. *The Rational Problem Solving scale* - His scores on problem identification suggested that he was now able to set goals and to try and identify the cause of the problem; despite continuing to blame others for causing the problem. He also scored highly on generation of alternatives (i.e. developed a number of different ideas to solve his problems), decision making (i.e. was able to weigh pros and cons) and solution implementation and verification. Even though he scored higher on the evaluation stage, evidence suggested that Mr A did not spend time practicing solutions or checking whether his choice was successful or not. This was related to the lack of consolidation of the latter stages of the problem solving process and due to Mr A not putting into practice the skills he had acquired. Relatedly, his ASD will impact upon his ability to reflect and generalise skills to other situations. *The Impulsive/Careless Style and Avoidance scale* – He reported some level of impulsivity and indicated to sometimes avoid

	solving his problems, which he initially denied.
Impulsivity scale	He obtained significantly higher scores across all three domains (motor impulsivity, cognitive impulsivity and non-planning impulsivity) when compared with mixed adult population and psychiatric inpatients. This suggested that Mr A was more likely to act without thinking, make quick cognitive decisions and was unlikely to plan for the future. It was likely that he was being more honest post intervention, as he gained further insight/awareness into his violent offending behaviour.
Locus of Control	Responses continued to indicate an internalised locus of control, despite continuing to blame others for his aggressive behaviour.
URICA	Readiness to Change score continued to place him in the Contemplation stage of change. However, he inconsistently engaged in treatment and his motivation remained the same; to move to a low secure service rather than focus on reducing his risk of re-offending.

9. PROGRESS MADE DURING THIS INTERVENTION

In summary, Mr A quickly grasped the concept of 'what is a problem'. He was able to identify problems he had encountered, and using the symbolised problem-solving diary (Appendix Q), he was able to with encouragement describe in detail the wider context of a situation, and was able understand how his situation, thoughts and feelings impacted on his behaviour. He identified a range of different emotions, and began to recognise his own emotions however, struggled with masking emotions. Once Mr A grasped the concept that he had thought processes before he acted, he was then able to understand that his arousal levels could be regulated through his thought processes.

Mr A was able to generate both behavioural and cognitive means to ensure he did not act on impulse, thus developed some cognitive flexibility. However, he needed support to understand that he needed to implement 'stops' in all difficult situations and not just in specific situations. Furthermore, with support he was able to generate and weigh the pros and cons of at least six alternative solutions to a problem he had identified. In addition, he learnt that contacting his solicitor was not as effective as some of the other solutions he had generated. However, he was not able to demonstrate evidence that he could independently make pro-social choices.

Mr A was able to show some evidence of evaluating his thoughts and feelings in relation to a problem he had solved. However, due to Mr A's disengagement from treatment on numerous occasions, he had very little time to practice and consolidate these stages in the session.

Overall, Mr A was able to cognitively gain some insight into the problem-solving process, but faced a number of difficulties which impacted upon his ability to independently put his skills into practice. These included:

- Limited opportunity to practice skills on the unit, which was hindered by his belief that nursing staff were not helping him with his treatment. Thus, a diagram was devised to help him understand the nurses' role in his treatment.

- Mr A could not complete diaries independently, and required on-going staff support to ensure he was completing them correctly.

- Disengagement from treatment and not completing homework tasks resulted in less opportunity to learn new skills and to consolidate learning.

- Mr A's rigidity of his thinking linked to his Autism was likely to have impeded his ability to use flexible cognitive problem-solving strategies, and limited his ability to generalise skills he had learnt in order to create internal psychological and behavioural change.

10. DISCUSSION

Mr A was a twenty-six year old man with ID and ASD, held a number of cognitive distortions and had deficits in social problem-solving, emotion recognition and regulation, and high impulsivity.

Based on the research it is likely that core features underlying his ID and ASD may have acted as risk factors, which have contributed to Mr A's violent offending behaviour (Royal College of Psychiatrists, 2006). He used violence in order to obtain material and/or financial gratification via street robbery offences and was physically violent and verbally aggressive in institutional settings. A number of multifaceted factors for these behaviours were identified including social problem-solving and emotional recognition and regulation deficits amongst many. These deficits were addressed as part of the individual TSOP Programme.

Through this intervention, Mr A learnt that he does have the ability to solve his problems and that there is a structured strategy that he can apply. Moreover, he shifted slightly in his criminogenic attitudes (i.e. restraining others is considered to be aggressive behaviour). However, due to his disengagement from treatment he had very little time to practice and consolidate his learning.

The assessments demonstrated little change post intervention, for example Mr A remained in the 'High' range on the NAS and scored significantly higher scores across all three domains on the Impulsivity scale, suggesting the likelihood of him re-engaging in acts of impulsive

violence. Furthermore, on the SPSI-R, although his scores had increased on most scales, he continued to blame others for his actions and there was limited evidence of him checking whether his choice was successful or not. Relatedly, Mr A continued to find it difficult to recognise the emotion fear, which the literature suggests, may cause individuals with ASD to lead to increased risk of offending (Woodbury-Smith et al., 2005). In addition, Mr A's continued motivation to change on the URICA was solely related to him wanting to move to a low secure service rather than focus on reducing his risk of re-offending. However, he appeared more honest about his levels of impulsivity, which could be a result of increased awareness into his offending behaviour.

From a positive view, staff reported on the 3-MIP assessment that problems with aggression around 'mealtimes' had significantly reduced due to staff consistency and care plans being put in place, and that Mr A was now able to better comply with them. Furthermore, the staff team felt Mr A's difficulty in communicating with them had slightly improved because he was learning to meet his needs more appropriately and that they now understood (via autism training) his interactional difficulties better and how to manage these.

It appeared that Mr A's progress had also been limited by his condition, as these factors were highly likely to have had an impact on his thinking style and the way in which he learns from his experience. He had limited theory of mind, which affected his ability to see the perspective of others, was highly egocentric and believed that he would never offend again, and therefore found it difficult to empathise and to understand his responsibility in relation to his offending behaviour. Furthermore, although he acquired appropriate ways to deal with interpersonal conflict, he had difficulty with being able to generalise this learning to different situations. This limited progress is supported by Gomez de la Cuesta

(2010), who highlighted the difficulties in treating offenders with ASD, due to their presenting difficulties.

Furthermore, Murphy (2010a) discussed mixed outcomes with modified CBT, reporting some success but that 'failures' were associated with difficulties in engagement, individuals who presented with significant egocentricity and who took limited responsibility, which was true for Mr A. In addition, Murphy (2010a) found that some individuals with ASD took an immediate dislike to professionals, which in the case of Mr A was the nursing team, as he was unable to fully understand how they were able to support him with his treatment. Murphy (2010b) also discussed how individuals with ASD are not open to change in using the conventional approaches, as these interventions do not emphasise the social, cognitive and sensory problems that these individuals may experience.

10.1 Recommendations and Risk Management

Risk management and risk reduction are pivotal to the role of a medium secure hospital (Barkham et al, 2013). Furthermore, the Department of health (2007) emphasised the significance of implementing a collaborative approach of positive risk management. This included supporting the implementation of therapies and strategies to maximise an individual's progression through their treatment.

To ensure Mr A's progression through his treatment pathway, I worked closely and collaboratively with Mr A and his care team throughout the intervention process and encouraged Mr A to communicate with the staff team. This I considered to be of high importance, as the staff team reported feeling helpless in their efforts to manage Mr A, due to their lack in understanding of his ASD.

To manage risk I could also promote the SPELL guidelines further as advocated by the National Autistic Society. This would involve recommending using a Structured and consistent approach, to highlight the Positive abilities of Mr A, to use an Empathic approach and to create an environment that is Low in stress and an approach that makes Links with other relevant agencies (Siddles et al., 1997). This is to ensure consistency amongst interactions, which in turn reduces anxiety and enhances motivation to change (Barkham et al., 2013).

This intervention was the first stage of Mr A's treatment pathway, and given that he was in the early stages of his treatment, and did not fully engage, he only made small shifts as expected. He therefore, remained at high risk of violently re-offending. Further work is deemed necessary as part of the next stage in his treatment pathway (i.e. offence specific work including substance misuse and Cognitive Analytic Therapy to help with his style of interacting to others), including being motivated to practice and consolidate learning of the problem-solving skills he had acquired in order to reduce his risk further.

Further recommendations included the need for a whole team approach to help Mr A to understand the importance of his treatment, and support him to gain insight into creating psychological change. In addition Mr A receiving regular one to one structured sessions from the staff team to implement social stories, practice using his skills (using the thinking skills diary) and to clarify any misunderstandings. It was also recommended that the staff team be familiar with all relevant care plans, and to ensure that they are clear in making any interactions with Mr A relevant to his treatment to avoid disengagement. Relatedly, staff to continue to maintain his routine, offer a familiar environment with little distraction, sets boundaries, offer structure and predictability and opportunities to engage in meaningful activities.

Mr A's inability to comprehend and reflect upon the seriousness of his violent offending behaviours are likely to continue if risk management plans are not carefully adhered to. He continues to require high levels of staff support and increased relational security to manage his risk of violence.

10.2 Limitations

Mr A received an Atypical diagnosis of ASD due to the lack of information regarding his developmental history. However, further tests perhaps could have been administered such as the Behavioural Rating Inventory of Executive Functioning (BRIEF-Adult; Roth, et al, 2005) and the Delis-Kaplan Executive Functioning System (DKEFS; Delis, Kaplan, & Kramer, 2001), to assess his Executive Functioning abilities to assess how he cognitively processes information. Attwood (2007) reports that the diagnostic criteria for ASD is an on-going process and that a diagnosis rarely informs an understanding of a person's specific difficulties. Furthermore, Murphy (2010a) highlighted that each individual's presentation varied, and it is therefore necessary to have an individualised assessment of the cognitive strengths and weaknesses associated with ASD and of respective coping strategies.

Further, due to Mr A's disengagement from treatment a lot of time was spent motivating him to re-engage and re-visiting previous concepts. Thus, a majority of the time was spent on the first half of the TSOP (identifying a problem and emotion recognition and regulation), and less time was spent on introducing the 'stop', 'think' and 'go' concepts and on the evaluation and reflection stages. Hence, the need for follow up work to consolidate the learning.

On reflection, I believe the social stories could have further been improved upon, as I focused more on the behaviours, the actions that

were expected of Mr A and consequences, rather than describing the thoughts and feelings of others in the situation. Further, there was little time to implement these stories at the end of my placement, so I had to rely heavily on staff to implement these, which was a challenge given Mr A's difficulty in interacting with the staff team.

There were also concerns in relation to the use of actuarial assessment measures that were adapted to suit the ID population. This is because some of the measures were scored and interpreted qualitatively, due to their lack of standardisation and normative data available for the ID population. Hence, the qualitative interpretation of results are confounded by evaluator bias. Furthermore, the 3-MIP measure required subjective opinions from the staff team regarding Mr A's progress in relation to managing his aggressive behaviour. Implementing and evaluating behaviour monitoring charts would have been more abundant to eliminate bias. Relatedly, there were limitations of self-report measures with individuals with ID due to increased likelihood of social desirability, memory problems, anxiety and incomprehension (Balla & Zigler, 1979).

I am now also aware of other measures that may have been applicable to an ID population that were not available in the service at the time (e.g. Modified Adult Norwicki-Strickland Internal-External locus of control scale–MANSIE; Kells, 2011; Provocation Inventory as part of the NAS-PI; Novaco, 2003).

Relatedly, Murphy (2013) suggests that many of the conventional risk factors contained in the HCR-20, do not appear relevant for a large proportion of individuals with ASD. This is because it fails to capture the underlying reasons why such individuals may offend. For example, in the case of Mr A difficulties with egocentricity, social naivety, emotional regulation, different dimensions of cognition (i.e. rigidity in problem-solving and failure to think through consequences of actions or generalise

learning) have a profound impact on his decision making and behaviour. The author argues, by not incorporating these difficulties in a risk assessment of an individual with ASD may result in an inadequate risk formulation and poor risk management plans.

In addition, it may have been useful to consider using the Multiple Sequential Functional Analysis (MFSA; Gresswell & Holin, 1992). MFSA are linked together to account for complex sequences of learning and to predict the circumstances and context under which re-offending is likely to reoccur (Hart, Gresswell & Braham, 2011), and the escalation in Mr A's offending behaviour.

10.3 Conclusion

Although Mr A slightly increased in his ability to recognise emotions in others and to understand the structured problem-solving process, he struggled to remain motivated and to apply this process to himself. However, with the on-going support from his whole care team, implementation of the social stories, and practice and consolidation of his learning, it was envisaged that further progress could be achieved.

This study has highlighted the difficulties in assessing and treating patients in secure settings with ID and ASD. Hence, Murphy (2013) recommends the need to develop a standardised set of guidelines that captures relevant difficulties even if based on an informed judgement for assessing and managing violence risk in offenders with ASD, along with standardised assessments and psychological interventions. This however, requires further research to improve evidence based practice in this field.

11. REFLECTION

The therapeutic relationship was dependent upon Mr A building trust and an understanding of my role as part of his treatment, and for me to understand and appreciate Mr A's needs in relation to his ID and ASD. I felt as sessions progressed, the more knowledge and understanding I gained about his condition and presentation in the session (e.g. I quickly learnt that Mr A would only engage with me when I made it clear that the interaction I was seeking was solely related to his treatment).

During, initial sessions I felt frustrated and unmotivated when he was threatening and intimidating towards me. However, through supervision we explored the power struggle that was being played out in sessions, and I learnt that I needed to depersonalise feelings that may arise in the session, and hold in mind that his interactional difficulties were related to his ASD. This helped me to move forward with Mr A in sessions and I established effective ways of working with him. For example, by avoiding confrontation and to instead remind him of his goals and how aggression towards others would not be seen as favourable in the eyes of the law and the Ministry of Justice (MOJ), as he wanted to prove to the MOJ that he had reduced his risk. I learnt that Mr A valued being praised and required plenty of time to process information. Furthermore, using visual aids and diagrams aided his communication and understanding of key concepts. When Mr A was settled he was very receptive of such methods and engaged well.

Working collaboratively with Mr A and his care team was crucial, as this allowed better communication between all parties involved in Mr A's care and reduced splitting within the team.

Supervision was invaluable in helping me to engage, re-engage and motivate Mr A in sessions. I acquired knowledge regarding Autism and

how to work best with Mr A and his team. Supervision also helped me to realise when countertransference was present (i.e. When Mr A felt frustrated so did the staff team and I). In addition, supervision helped me to understand staff's perspective regarding the difficulties they experienced when working with Mr A, as he presented differently towards me than he did to the nursing staff. Hence, the need to support both Mr A and the staff team.

I gained valuable knowledge and experience of working with an individual with such complex needs in a secure hospital setting. I gained a greater understanding of ASD and I learnt that, despite there being limits due to his developmental disorder, some changes may be possible if framed in relation to the benefits to himself, and working closely with his care team to create a safe and predictable milieu. Furthermore, as Powell (2002) suggested, individuals with ASD have a different view of the world and therefore it is important to adapt interventions to take ASD into consideration, as there is a risk that offenders with ASD may be detained for longer than necessary because of the lack of understanding regarding rehabilitation methods (Dein & Woodbury-Smith, 2010).

CHAPTER 5

CRITIQUE OF THE NOVACO ANGER SCALE AND PROVOCATION INVENTORY (NAS-PI)

1. INTRODUCTION

Psychometric measures can provide quantifiable information on a variety of aspects of cognition and behaviour (Jennings, 2003). Psychometrics can also be used as an evaluative tool to determine the effectiveness of offending behaviour programmes (e.g. Enhanced Thinking Skills). However, it is essential that the use of psychometrics in programme evaluation is based on evidence that they are valid and reliable indicators of the constructs they aim to capture (Wakeling & Travers, 2010).

This review examines the Novaco Anger and Provocation Inventory (NAS-PI; Novaco 1994, 2003) and the Northgate modified version of the NAS-PI (Novaco & Taylor, 2004), which was specially adapted for offenders with an intellectual disability (ID). The NAS-PI was used in studies evaluating the effectiveness of treatment programmes with mentally Disordered Offenders in chapter 1, and the Novaco Anger Scale (NAS; modified version) was used before and after an individual social problem solving intervention (chapter 4) with an offender with ID.

The NAS-PI is designed to assess anger as a problem of psychological functioning and physical health and to assess therapeutic change (Novaco, 2003). Another purpose of the anger measure is to assist in the assessment of risk of future violence (Baker, Van Hasselt & Sellers, 2008). The NAS-PI is based on the theoretical model that "anger is a subjective emotional state, entailing the presence of physiological arousal and cognitions of antagonism, and is a causal determinant of aggression" (Novaco, 1994, p. 32). Anger has a prominent role in everyday life and

only becomes problematic when the expression becomes a frequent, inappropriate or disproportionate reaction to events (Novaco & Chemtob, 1998). Violent behaviour can be an outgrowth of excessive anger (Decuyper, De Bolle & De Fruyt, 2011) and this emotion has been found to be predictive of violence in psychiatric and forensic populations (McNeil, Eisner & Binder, 2003).

The link between anger and hospital assaultiveness was demonstrated by Novaco and Taylor (2004), as patient-rated anger significantly accounted for patient assaults, controlling for age, IQ, length of stay, prior violent offending and personality variables. Further, Novaco and Taylor (2015) pointed out that for detained hospital patients; assaultive behaviour is an important problem that affects patient care and staff well-being. They reported that assaultive behaviour by patients damages the treatment milieu, results in increased restrictions and longer periods of detention, constitutes a risk for harm among staff, and has considerable costs for the institution in workers' compensation claims, sick leave and employee turnover.

In addition, Novaco (2003) states that because anger is a significant activator of violent behaviour in mental health settings, the arousal of anger interferes with information processing, and reduces the ability to think carefully and to act in a considerate manner. Therefore, anger in individuals' who are at risk of violent behaviour in such settings needs to be regulated in order to maintain efficient functioning and problem solving.

Aggressive behaviour is also a prominent problem among people with ID, particularly those in institutional settings (e.g. Harris, 1993). Novaco and Taylor (2015) argued that the prevalence of physical aggression for people with ID was more to do with their emotional difficulties and not

getting their needs met rather than attributing difficulties to their disability.

A number of research studies have utilised the NAS-PI to assess the degree of change in anger disposition following offending behaviour programmes with MDOs (Jotangia, Rees-Jones, Gudjonsson, & Young, 2015; Yip, Gudjonsson, Perkins, Doidge, Hopkin, & Young, 2013). It has also been utilised as an outcome measure for anger treatment for forensic patients with ID (e.g. Novaco & Taylor, 2015). Thus, it is vital to critique the scientific properties and the clinical effectiveness of the NAS-PI, in particular its applicability to MDOs and ID offenders' in inpatient settings.

2. OVERVIEW OF THE NAS-PI

The NAS-PI is a two part self-report questionnaire that can be completed in approximately 15 minutes. NAS items focus on how an individual experiences anger. The NAS yields five scores including Cognitive (COG), Arousal (ARO) and Behavioural (BEH) subscale scores which comprise the NAS total score for anger disposition. The NAS also includes an Anger Regulation subscale score. The full NAS contains 60 items rated on three-point scales, and includes 48 items comprising the NAS total score, plus the 12-item Anger Regulation scale.

The PI is an anger reaction inventory developed to accompany the NAS. The PI consists of 25 items that can be completed in approximately 10 minutes. The PI items focus on the kinds of situations that lead to anger in five content areas including 'disrespectful' 'treatment', 'unfairness', 'frustration', 'annoying traits of others', and 'irritation', which produce a single Total PI score (Novaco, 2003; Taylor & Novaco, 2005). Novaco (2003) recommended that both parts of the measure are administered together where possible.

The NAS-PI has been standardised on an age stratified sample of 1546 individuals aged 9 to 84 and separate norms are available for preadolescent/adolescents (9-18) and adults (19 and over). However, individual males from minority ethnic backgrounds and those with less education were underrepresented in the sample.

2.1 Development and research base

The NAS and PI were developed for use with mentally disordered populations, ID, as well as normal populations and they were validated in the MacArthur study on violence and mental disorder (Monahan et al., 2001). Novaco (2003) reported that a preliminary set of 101 NAS-PI items was devised (NAS Anger Regulation subscale was not included in the preliminary evaluation). A pilot sample of 171 undergraduate students responded to these items. A smaller subgroup of 69 students completed the NAS-PI pilot items again two weeks later. Internal consistency estimates for the full sample were .92 for both the NAS total score and PI Total score, and test-retest reliability estimates for the smaller subgroup were also relatively high, .86 and .72 respectively. Correlations between scores on the pilot form of the NAS-PI and other anger measures (Buss Durkee Hostility Inventory, BDHI; Buss & Durkee, 1957; State-Trait Anger Expression Inventory, STAXI; Spielberger, 1996), showed statistically significant correlations.

However, as a result of this pilot study, Novaco (2003) discussed how items were eliminated and that some additional items were constructed due to relatively poor retest reliabilities, low correlations with their intended subscales, and redundancy with other items, or poor fit with anger experiences of patients.

A revised instrument with 88 items was administered to 142 patients in three California state hospitals, of whom 126 completed the form on a

second occasion, some two weeks later. Then internal consistency of the NAS and the PI turned out to be excellent with alphas of .95 and .95 respectively, whereas the test-retest reliability was also good with correlations of .84 and .86 respectively. Furthermore, the validity of the NAS could be demonstrated by means of correlations of .82 with the BDHI and .84 with the trait part of the Spielberger State- Trait Anger Scale (STAS; Speilberger, 1980).

The NAS-PI was refined once again, and a second wave of hospital data was gathered for the purpose of prospective validity testing. The prospective analyses involved 158 patients (including 68 from the initial phase). Anger tests were re-administered after two-week (N=158), one-month (N=155), and two-month (N=151) intervals. The results demonstrated good predictive validity for the NAS-PI with the STAS and staff ratings of anger as the criterion variables. The items on the final form of the NAS-PI are the ones used in scale development studies. Further, items concerning attentional focus were dropped and replaced by justification items, and the REG subscale was added, along with minor changes made to the wording (Hornsveld, Muris & Kraaimaat, 2011; Novaco, 2003).

2.2 Overview of the Northgate modified version of the NAS-PI

Clare and Mosher (2005) state that there were very few standardised measures that could be used to assess the thoughts and feelings of people with ID, due to the standard measures being too complex. However, some of the measures established for assessing anger within 'mainstream' forensic and clinical settings have since been adapted. These include the NAS-PI (1994; 2003) and the STAXI.

The NAS and PI were modified for use with ID patients for the Northgate project by Novaco and Taylor (2004). Of the 48 items comprising the NAS

total, 27 were modified. Of these, 17 were re-worded to simplify meaning. In relation to the PI, 17 of the 25 items were modified to make the item meaning more accessible, and to increase the relevance of the items to patients' living in highly supervised forensic environments.

2.3 Theoretical Model

The NAS-PI is a multi-scale psychometric instrument, constructed to assess cognitive, physiological and behavioural aspects of anger, as well as the efforts to control anger. This instrument was developed because there were no theoretically driven anger measures that emphasized the multifaceted nature of anger as a subjective experience (Decuyper et al., 2011). The theoretical assumptions of each NAS subscale are summarised:

Cognitive (COG) subscale: The experience of anger is a function of the way external events are perceived and processed, and cognitive mediation is understood to be integral to perception and often occurs as an automatic process. The key cognitive process related to anger experience included 'Justification', 'suspiciousness', 'rumination' and 'hostile attitude'.

Arousal (ARO) subscale: Relates to the intensity of arousal and the associated tension in the skeletal muscles as a readiness for action. Once arousal is activated, it can be prolonged and result in somatic and emotional after affects. The Arousal subscale items included 'Intensity', 'Duration', 'Somatic tension', and 'Irritability'.

Behaviour (BEH) subscale: The behavioural components of anger include antagonistic, confrontational and destructive acts, which defines the emotional experience of anger. These items include 'impulsive reaction', 'Verbal aggression', 'Physical confrontation', and 'Indirect expression'.

Anger Regulation (REG) subscale: The anger regulation items represent anger management capabilities in each of the three domains measured by the other NAS subscales (COG, ARO and BEH). Items include an individual's ability to calm themselves and direct angry impulses into more constructive paths.

PI items were intended to measure anger intensity across a range of provocative situations. The items were devised specifically from the perspectives of an individual's cognitive appraisal of the types of situations frequently reported to provoke anger (as listed above).

2.4 Interpreting NAS-PI results

NAS-PI T-scores are interpreted using the categories in Table 10 below *(reproduced from technical manual; Novaco, 2003):*

Table 11: Definitions of NAS-PI *T*-score Ranges

$\leq$ 29 *T*	Very Low
30*T*-39*T*	Low
40*T*-44*T*	Low Average
45*T*-55*T*	Average
56*T*-59*T*	High Average
60*T*-69*T*	High
$\geq$70 *T*	Very High

The NAS-PI produces scores separately for the experience of anger (NAS) and the provoking factors (PI):

The NAS total score is the sum of item response values for all the NAS items on the COG, ARO and BEH subscales. High scores (60*T* to 69*T*) signal difficulty in some area of anger regulation and that the individual is likely to react with anger in an aversive situation. This can be clarified by examining subscale scores and the content of particular items that have

contributed to score elevations. Very high scores ($\geq$70*T*) are likely to reflect significant distress that merits clinical intervention.

A high REG score indicates the endorsement of effective anger regulation skills including regulating anger endangering thoughts and thinking styles, to effect self-calming and to engage in constructive behaviour when faced with provocation.

The PI Total T-score reflects an individual's overall level of anger with high scores indicating relatively higher anger levels. PI Total T-scores are interpreted using the same categories as in Table 10.

3. COMPARISON WITH OTHER MEASURES

Other psychometric measures have been constructed for the assessment of anger. The STAXI (Spielberger, 1996) and the revised version State Trait Anger Expression Inventory (2nd Edition; STAXI-2, Spielberger, 1999) has been reported to be one of the most widely used anger measures in clinical research settings (Taylor & Novaco, 2005). The STAXI-2 is designed to assess the experience, expression, and control of anger (Spielberger, 1999). It is a 57-item self-report measure, which includes 42 unchanged items from the original 44 item STAXI. The instrument assesses how a person feels at a particular time (State-Anger), how frequently, easily, and intensely the person feels angry (Trait-Anger) and what the person does when feeling angry (Anger Expression-In, Anger Expression-Out, Anger-Control; Etzler, Rohrmann & Brandt, 2014). The STAXI-2 captures a broad scope of the anger concept but does not assess behavioural change, angry mood, and cognitions (Schamborg, Tully, & Browne, 2015), unlike the NAS-PI which assesses cognitive, physiological and behavioural aspects of anger.

Other measures include the Aggression Questionnaire (AQ; Buss & Perry, 1992) which is a widely used self-report measure of trait aggression. This 29-item questionnaire measures four components of aggression: physical aggression, verbal aggression, anger and hostility (Mills, Kroner & Forth, 1998). Like the NAS-PI it incorporates the behavioural component of anger and has been shown to correlate with measures of anger and hostility (Kehn, Culhane, Kolmans & Bongard, 2015).

4. RELIABILITY

4.1 Internal consistency

Internal consistency concerns the extent to which items on the test are measuring the same thing. Novaco (2003) calculated alpha coefficients of the NAS-PI in the standardisation sample (see Table 11). The sample showed high internal consistency (ranging from .76 to .89, with a value of .94 for the NAS total score) and these values were very similar to those clinical samples found during the initial development of the measure (Novaco, 1994; Monahan et al., 2001). Internal consistency estimates for the PI ranged from .73 to .84, with a value of .95 for the PI Total score, indicating adequate internal consistency for the NAS-PI scales. In addition, similar alpha values were observed for the youngest individuals in the standardisation sample (aged 9 to 11).

Table 12: Internal Consistency Estimates (Alpha) for the NAS-PI *(reproduced from technical manual; Novaco, 2003)*

	Standardisation Sample				
	Full Sample (a)	Ages 9-11 (b)	Hospitalised Inpatients-California (c)	Hospitalised Inpatients-Scotland (d)	McArthur Study (e)
NAS					
COG	.82	.76	.82	.80	.81
ARO	.84	.82	.89	.87	.87
BEH	.89	.87	.90	.91	.89
REG	.76	.78	-	-	-
NAS Total	.94	.93	.95	.95	.94
PI					
DIS	.73	.76	.72		
UNF	.76	.70	.73		
FRU	.83	.81	.83		
ANN	.84	.72	.84		
IRR	.84	.76	.84		
PI Total	.95	.93	.95	.94	.92

(a) N = 1546. (b) N=102. (c) N=142 male and female patients in three California state hospitals. (d) N=119 male forensic patients, State Hospital, Scotland. Data collected in collaboration with Stanley J. Renwick. (e) N=1101 male and female civil commitment patients in three US metropolitan areas.

The NAS-PI has been shown to have high internal reliability across a wide range of non-clinical (Jones, Thomas-Peter & Trout, 1999; Culhane & Morera, 2010), clinical (Mills, et al., 1998; Novaco & Taylor, 2004; Hornsveld et al., 2011) and offender populations (Lindqvist, Daderman & Hellstrom, 2005; Baker, Van Hasselt & Sellers, 2008; Moeller, Novaco, Heinola-Nielsen & Hougaard, 2016).

4.2 Test-re-test reliability

It is also important to test the degree to which results are consistent overtime by repeating administration of the same test and correlating the scores (Crighton, 2010). Novaco (2003) sought test-retest reliability for NAS-PI scores for a small subgroup (N=27) of the standardisation sample (see Table 12) who completed the test twice, with a two-week interval. NAS and PI test-retest reliability ranged from .47 to .82 and all values except the COG scale indicated adequate retest reliability. A limitation of

this analysis was the small sample size, which may be related to the low COG value (Novaco, 2003).

Once again these values were very similar to those clinical samples found during the initial development of the measure (Novaco, 1994) except with higher coefficient for COG, which may be due to the measure being repeated eight weeks later and inpatients having received therapeutic intervention. Several independent studies also indicated good retest reliability (Mills et al., 1998; Hornsveld et al., 2011; Moeller et al., 2016).

Relatedly, Novaco and Taylor (2004) found test-retest scores for ID offenders to be .52 and .57 for the NAS and PI, respectively. These scores were found to be less robust, but the testing's were 2 to 6 months apart and were conducted with a small subsample of 44 cases. Novaco and Taylor (2004) argued that individual differences in reactivity to changing circumstances in the hospital, length of the interval, regression to the mean effects and weaknesses of the modified measure may have lessened the test re-test coefficients.

Table 13: Test-Retest Reliability Estimates for the NAS-PI *(reproduced from technical manual; Novaco, 2003)*

	Standardisation Subsample (a)	Hospitalised Inpatients-California (b)	Hospitalised Inpatients-Scotland (c)	Canadian Prison Sample (d)
NAS				
COG	.47	.74	.66	.82
ARO	.78	.84	.81	.83
BEH	.81	.83	.75	.88
REG	.72	-	.77	-
NAS Total	.96	.84	.78	.89
PI				
DIS	.70			
UNF	.85			
FRU	.78			
ANN	.68			
IRR	.82			
PI Total	.82	.86	.94	.85

(a) N = 27; two-week interest interval. (b) N=126 male and female patients at three California state hospitals; two-week interest interval. (c) N=48 male and female forensic patients on admissions unit, State Hospital, Scotland. NAS was given four weeks and eight weeks after hospital admission. (d) N=102 males, Millhaven Institution (Mills, Kroner & Forth, 1998).

5. VALIDITY

Crighton (2010) argues that it is possible to have high degrees of reliability but little or no validity to an assessment. Thus, although the NAS-PI appears to be reliable, it is important to assess whether it is a valid measure. Validity expresses the degree to which a measurement measures what it purports to measure (Bolarinwa, 2015). The following three main approaches to estimate the validity of an assessment are used:

5.1 Content Validity

Both content validity and face validity exploits how well the idea of a theoretical construct is represented in an operational measure (e.g. questionnaire; Bolarinwa, 2015). Content validity pertains to the degree to which the instrument fully assesses or measures the construct of interest (Polit & Beck, 2006). The NAS-PI is based on a theoretical model and the content of the measure appears relevant to the specific construct it aims to measure. For example, the NAS-PI aims to measure anger disposition and it examines the cognitive, arousal and behavioural domains of anger as well as anger intensity (Baker et al., 2008). However, a major drawback of content validity is that it is considered to be highly subjective like face validity (Bolarinwa, 2015).

5.2 Face Validity

Face validity involves the individual looking at the items in the questionnaire and agreeing at face value that the test is a valid measure of the concept which is being measured (Bolarinwa, 2015). Due to its subjective assessment of validity, some individuals undertaking the assessment may struggle to understand some of the concepts or may feel annoyed or become confused if the questions are considered to be

ambiguous and/or irrelevant to the purpose for which it is undertaken. Thus, the answers given may be inaccurate. However, the items in the NAS-PI appear to represent the theoretical constructs about anger cognitions, arousal and behaviour, therefore it can be considered to meet face validity. However, this does not seem to be formally assessed.

Due to the questionnaires face validity there are implications of transparency of the items. That is participants will be more vulnerable to social desirability bias because they will be able to predict what is being measured on the NASI-PI and, as such they may manipulate their responses by denying or minimising their experience of anger and increase demand characteristics.

6. CRITERION VALIDITY

6.1 Concurrent Validity

Concurrent validity is a measure of how well a particular test correlates with a previously validated test for the same construct and was administered at the same time. As discussed earlier in the 'development and research base' the NAS-PI was found to be substantially correlated with other measures of anger and hostility with clinical samples (Novaco, 1994; Ramm & Novaco, 2002). In addition, a sample of 110 ID male inpatients in a forensic hospital completed both the NAS-PI and the STAXI and showed substantial inter-correlations, particularly between the NAS scales and Trait Anger Out (.73), and Anger Expression (.78), providing evidence for concordance between these instruments (Novaco & Taylor, 2004).

Relatedly, a number of independent studies demonstrated concurrent validity of the NAS-PI. Hornsveld et al. (2011) found the Dutch version of the NAS-PI to have significant and positive correlations with the

Psychopathy Checklist Revised (PCLR; Hare, 1991), NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992; Dutch Version: Hoekstra, Ormel & De Fruyt, 1996), STAS (Spielberger, 1980), Rosenzweig's (1978) Pictiure-Frustration Study-Adapted Version (PFS-AV; Hornsveld, Nijman, Hollin & Kraaimaat, 2007) and Aggression Questionnaire-Short Form (AQ-SF; Bryant & Smith, 2001; Dutch Version; Hornsveld, Muris, Kraaimaat & Messters, 2009) in a sample of violent forensic psychiatric patients. Further, Moeller et al. (2016) showed high correlations with the STAXI-2 across all Danish NAS-PI indices, with the highest correlations being between NAS total and Trait Anger (.85) in a clinical psychiatric sample.

In correctional settings the NAS-PI was not consistently supported across the samples. Novaco (2003) argued that self-report anger assessments collected from such sample are susceptible to measurement reactivity, but that the means were comparable to those obtained from forensic inpatient settings.

However, a published independent study by Mills et al. (1998) with Canadian criminal offenders found the relationship of the NAS with the STAXI, AQ and the Multidimensional Anger Inventory-Revised (MAI-R) demonstrating consistent concurrent validity. In addition, Williams, Boyd, Cascardi and Poythress (1996) with incarcerated adult offenders in Florida found NAS-PI validity to be robust in terms of correlations with the AQ. The total score of the AQ had correlations of .71, .74 and .82 with the NAS cognitive, arousal and behavioural domains respectively. Further, Lindqvist et al. (2005) translated the NAS-PI into Swedish and evaluated a group of 95 male violent offenders. Concurrent validity was established with correlations with the AQ and with the STAXI-2).

7. PREDICTIVE VALIDITY

Predictive validity is the ability of a test to predict future behaviour/outcome. Novaco (2003) documented that there was convergent evidence that the NAS-PI measures of anger are predictive of other measures of anger and aggressive behaviour in both retrospective and prospective analysis. For example, Novaco (1994) found the NAS-PI to be predictive of State Anger as measured by the STAXI at follow-up testing. Novaco (1994) reported that the correlations progressively increased overtime, being strongest at the two-month assessment, at which point the correlation with State Anger was .46 for NAS total and .43 for the PI total. The largest coefficient was for ARO with .47. The NAS was also examined for its predictive relationship to aggressive behaviour, and the NAS total was found to be significantly related (r=.34) to the hospitalised patients' number of convictions for violent crimes in a retrospective analysis.

Relatedly, predictive validity of the NAS-PI with regard to assaultive incidents in a secure hospital was examined with ID male offenders (Novaco & Taylor, 2004). Results showed that NAS total was significantly predictive (p=.003) of whether the patient had been physically assaultive in the hospital and the total number of physical assaults. Novaco and Taylor (2005) stated that despite their ID, patients were able to report anger that is predictive of their assaultive behaviour; information which is of high clinical and managerial significance.

The NAS total has also been found predictive of violence by other investigators retrospectively in pre-hospital and hospital (McNiel, Eisner, & Binder, 2003), prospectively in hospital (Doyle & Dolan, 2006a) and prospectively in the community (Doyle & Dolan, 2006b; Monhan et al., 2001, Swogger, Walsh, Homaifar, Caine & Conner, 2012; Ullrich, Keers &

Coid, 2013) and in both retrospective and prospective analyses in hospital (Moeller et al., 2016) using the number of aggressive incidents as criteria.

8. CONSTRUCT VALIDITY

Construct validity is the degree to which an instrument measures the theoretical construct that it is intended to measure (Bolarinwa, 2015). Three types of evidence were obtained for the purpose of construct validity as discussed below:

8.1 Convergent Validity

In convergent validity different measures of the same concept yield similar results and correlations between theoretically similar measures should be high. Lindqvist et al. (2005) found convergent validity was excellent as demonstrated by high correlations between NAS total scores and scores on Swedish versions of the AQ (.86) and the Trait Anger Scale of the STAXI-2 (.79) with male violent prisoners. In addition, Baker et al. (2008) showed that convergent validity was satisfactory, as shown by correlations of .69 between both the NAS and the PI and the STAS Trait Anger and substantial positive correlations with various BDHI subscales (e.g. .58 between the NAS and BDHI Irritability). Further, Hornsveld et al. (2011) determined the convergent validity of the NAS-PI, as it was found to correlate positively with the personality trait of neurotic but negatively with agreeableness.

Novaco and Taylor (2004) found relatively low coefficients for STAXI Anger Expression (.26) and for NAS total (.28). However, found staff ratings of patient anger based on ward observations were found to have high internal consistency and to correlate significantly with patient self-reports. The correlations of staff-rated with patient-rated anger were significant ($p<.01$, two-tailed test) for Anger Out ($r=.27$, $p<.01$) and NAS

cognitive (r=.34. p<.001) and for the summary scores of the scales to which they contribute (Anger Expression and NAS total).

8.2 Discriminant Validity

In discriminant validity there is evidence that one concept is different from other closely related concepts and correlations between theoretically dissimilar measures should be low. Mills et al. (1998) reported consistently weaker correlations between the NAS and the Basic Personality Inventory Depression and Anxiety affective scales (.62 and .52, respectively), than with the MAI-R total score (.82), giving evidence of discriminant validity with violent offenders. Relatedly, Hornsveld et al. (2011) further supported discriminate validity of the NAS-PI by the lack of significant correlations between the PCL-R total score for both inpatient and outpatient samples. In addition Moeller et al. (2016) reported discriminant validity was reflected in the NAS correlations with the STAXI being significantly higher (.85) than with HAD Depression (.24) and HADS Anxiety (.54). Further discriminative validity for the Danish NAS and PI in differentiating the clinical and non-clinical samples was substantiated.

8.3 Factorial Validity

In the analysis of factorial validity, the items to measure a particular dimension within a construct of interest are supposed to be highly related to one another than those measuring other dimensions (Bolarinwa, 2015).

Research on the factor structure of the NAS-PI (1994 version) was conducted by Jones, Thomas-Peter and Gangstad (2003) with a clinical and non-clinical group. Exploratory Factor Analysis yielded three factors that were not consistent with the domains originally defined by Novaco (1994). The authors suggested that this result was probably due to the 3-point scale which "allows for little response variation and may therefore

increase measurement error" (p. 436). Relatedly, Monahan et al. (2001) and Hornsveld et al. (2011) obtained similar results. Hornsveld et al. (2011) suggested that a firm empirical basis of the division of the NAS is currently lacking and recommended that NAS subscales should only be used for clinical purposes in combination with other measures and clinical impressions.

Moeller et al. (2016) also found the tests of the Danish NAS and PI factor structure were generally not supportive stating this may be due to language translation, cultural differences or instrument limitations. Moeller et al. (2016) also asserted that because the NAS-PI construction was intended to facilitate clinical case formulation and identify targets in treatment planning, this may have detracted from producing a psychometrically robust factor structure. Thus, the non-supportive confirmatory factor analyses used to test factor structure raises question regarding the utility of the NAS subscales in cross-cultural applications.

9. CLINICAL UTILITY IN INPATIENTS FORENSIC SETTINGS

The NAS-PI is a frequently used tool and can be used with people who are mentally disordered or ID. The addition of the modified version develops the tools content validity and relevance to different forensic populations.

The NAS-PI was devised so that it could be read easily by most individuals with a fourth-grade reading ability, but that items may need to be read to those who are mentally disordered and ID (Novaco, 2003), particularly in the latter group who may differ in levels of cognitive ability. However, if the person reading the questions is the same person who delivered the intervention/assessment, there is the risk of positive bias and patients giving socially desirable responses. Thus, the person collating the data needs to be independent from the intervention.

Despite NAS-PI self-report measures being quick and easy to administer, according to Novaco (2003) assessing anger by self-report is a key validity issue especially assessing anger in forensic settings. This is because inpatients may be more inclined than outpatients to respond in a socially desirable way in order to avoid negative clinical and legal consequences (Hornsveld et al., 2011). Thus, they may give inaccurate responses on the NAS-PI and mask true anger disposition Novaco (2003). However, the NAS-PI does incorporate a validity test, the Inconsistent Responding Index (INC). This test checks for unusual levels of inconsistencies in responses to items and when an INC index value of 4 or higher is obtained, an attempt should be made to ascertain the reason for the discrepancy.

Further, some participants may lack the ability to self-monitor particularly individuals who have serious anger problems. In addition, successful anger interventions can help to increase a person's capacity to self-monitor and therefore self-reports of anger can actually increase (Novaco, 2003). Relatedly, inpatients live in a structured and controlled environment, which has a diminished effect on anger and aggression (Hornsveld et al., 2011).

To reduce problems of reactivity based on the individual's presumption about the test situation, Novaco (2003) recommend that a rapport should be established with the respondent, information about the purpose of the assessment should be provided and respondents should have the opportunity to ask questions about the questionnaire. In addition, Novaco (2003) advised that interpretation of scores should be undertaken only by individuals with supervised clinical training in the use of psychological tests, who may be better equipped to deal with transparency and social desirability issues that may arise during administration.

From personal experience of administering the modified version of the NAS-PI to offenders with ID, it was felt the assessment for some patients (e.g. with ADHD, poor concentration, limited processing ability) was too long. Perhaps it may be helpful to have a shorter version with less items, similar to the Social Problem Solving Inventory – Revised: Short (SPSI-R:S; D'Zurilla, Nezu & Maydeu-Olivares, 2002). Relatedly, a shorter version may be easier to translate into different languages because four items on the Dutch version due to English expression could not be translated exactly (Hornsveld et al., 2011).

Relatedly, Clare and Mosher (2005) suggested alongside the standardised measure vignettes for people with ID (preferably supported with drawings, to make it more concrete) could be developed about a situation in which a person was convicted for being seriously aggressive. This could then be used to assess what the person felt during the incident (including bodily feelings and emotions), thoughts, wanted to achieve from the situation, felt about what happened and could have done differently to achieve his/her aims). Alongside the standardised measure, information about the persons own aggressive behaviour could be obtained via role-plays, discussions, audio-tapes and written diaries.

Novaco and Taylor (2005) strongly advised that a measurement of anger be taken at different time points because of the reactive nature of anger and fluctuating contextual conditions. Relatedly, Mills et al. (2008) stated that admission to a maximum security institution is an anxiety provoking experience and that anxiety declines over time (Zamble & Porporino, 1988). Consequently, norms established in the first week after admission to an institution may be less valid if used with test results gathered several weeks later.

The response format of a 3-point scale was developed to maintain simplicity, while providing greater variability in comparison to

dichotomous responses (Novaco, 2003). However, as discussed above there is the possibility of measurement error, and instead Jones et al. (2003) recommended a 5 or 7 point scale be used to reduce this.

10. CONCLUSION

NAS-PI scores were observed to distinguish well between assaultive and non-assaultive forensic inpatients, and to predict future assaultive behaviour in institutions and violent behaviour in the community following discharge (Novaco, 2003). Studies that have examined the psychometric properties of the NAS-PI with violent offenders or people with anger management problems generally have provided support for its internal consistency, test-retest reliability and concurrent validity (Hornsveld et al., 2011). In addition, the modified version of the NAS-PI has demonstrated good internal reliability, concurrent and predictive validity (Novaco & Taylor, 2004). Thus, giving justification of its use in the relevant parts of this thesis.

Moeller et al. (2016) reported that the NAS-PI has relevance for the evaluation of anger management programmes and the scores for the NAS and PI for the offender samples in the clinical range are indicative of those respondents in need of anger treatment. However, Taylor et al. (2004) stated many psychometric measures of anger reactivity include general situations, which may not be particularly relevant to the experiences of people with ID. Therefore, when the NAS-PI is used in forensic settings it is essential to obtain a concurrent estimate of response bias through clinical observation and interview (Novaco, 2003).

In addition, anger is an abstract construct, which can be measured in many ways, none of which constitute a 'pure' index of anger. Thus, accuracy of assessment, therefore, is enhanced by the use of a multi-method approach (e.g. offence history, observer ratings), and seeking

triangulation across different measures (Novaco & Taylor, 2005) to gain a thorough understanding of an individual's anger. This is because different measures constructed for the assessment of anger assesses different aspects of anger, thus the NAS-PI should not be relied upon alone to predict risk of future violence and assess therapeutic change.

This psychometric critique provides support for the reliability and validity of the NAS-PI assessment tool with MDOs in forensic populations. Specifically, through familiarising and utilising the modified version of the NAS-PI, it has shown that it is also a useful scale for individuals with an ID in inpatient forensic settings. Further, the NAS-PI is one of the assessment tools to be specifically modified for individuals with an ID, so it is therefore advantageous in the assessment of risk of violence in this population.

One of the limitations of this critique is that the NAS-PI is normed with an American population and males from minority ethnic backgrounds and those with less education were underrepresented in the sample, which limits its generalisability to other cultures. Further, the studies that have been used to validate the NAS-PI, specifically in the United Kingdom are relatively old, although there is newer research emerging from other countries (e.g. Denmark, Netherlands, United States), but generalisability remains an issue.

This critique has highlighted that even though the NAS-PI has been validated with different samples (i.e. nonclinical, clinical, inpatient and offenders) and cross-culturally in different languages, there still remains a significant gap in relation to ID population.

The modified NAS-PI has not been demonstrated to be equivalent to the original instruments, therefore detailed comparisons with other studies is not yet recommended (Novaco & Taylor, 2005). Further, the modified

NAS-PI has only been used with men with ID in hospital-based forensic settings (e.g. medium-secure provision). Therefore, comparisons can only be made with scores from other inpatients settings and not with scores from nonclinical populations (Hornsveld et al., 2011). Therefore, there is a need for further research of the psychometric properties of the modified version of the NAS-PI with different ID populations (females, ethnic minorities, young offenders) and across different settings (i.e. high secure, low secure, prison and community).

CHAPTER 6

1. GENERAL DISCUSSION

1.1 Aim of thesis

This thesis aimed to examine the effectiveness of social problem solving programmes and the efficacy of specific assessment tools designed for MDOs and ID offenders in secure hospital settings. The empirical evidence base is limited in this field, and the main findings of the four chapters discussed below contribute further to research in this field.

1.2 Summary of findings

The systematic review discussed in chapter 2 systematically assessed the effectiveness of cognitive-behavioural group interventions in forensic secure settings, which address social problem solving deficits in MDOs, and examined whether there was a reduction in factors contributing to recidivism and/or in recidivism.

Fourteen studies were examined in this review. A total of 788 participants were recruited from 4 high, 23 medium, and 5 low secure hospitals. Three studies did not specify level of security. All studies reported benefits of the social problem solving groups with MDOs in secure settings (e.g. improved social problem solving ability, reduction in antisocial attitudes and behaviour). Several studies identified that the shorter revised programmes (i.e. R&R2MHP and R&R2ADHD) had lower drop-out rates, thus, being more cost-effective than the original R&R program, which contains more than twice as many sessions and had a much higher drop-out rate. Psychopathy, anti-social PD, and recent violence appeared to be the strongest predictors of drop-out. Thus, these programmes may not

meet the needs of patients who display high levels of impulsivity, poor behaviour control and anti-social and psychopathic traits.

However, the review highlighted a number of methodological limitations across the studies suggesting that the effectiveness of social problem solving groups with male and female MDOs cannot be robustly concluded and that there are important areas for development. This included a majority of the studies having small sample sizes, and variability in samples where some studies included either male or female participants or both, and participants with or without PD. Further, several different cognitive skills programmes were delivered, varying in duration and delivery style. Thus, limiting the ability to generalise findings, to directly compare programmes and statistical analysis could not be conducted.

The review highlighted that not all of the studies employed a control group and very few conducted a follow-up of outcomes. However, the review suggested that control groups are important to account for change between groups and to establish the efficacy of these programmes, and that longer-term follow up is essential to assess patients' progression in terms of rehabilitation and recidivism. In addition, a wide number of assessment tools were used indicating the necessity for an agreement on this evaluation approach and to use measures which are objective and standardised for this population.

Chapter 3 details a qualitative study exploring the meanings ID offenders in a secure hospital attribute to their experience of the TSOP, and their perceptions of its impact on factors contributing to their offending behaviour. Five superordinate themes were identified through exploration of the data using IPA. The main findings from each of the themes will be summarised here. The first superordinate theme, '"It's helped me a lot": Group as a beneficial process', participants' experiences conveyed a sense

of hope and optimism about their treatment in hospital in comparison to a prison setting, and gained personal achievement and empowerment.

The second theme '"I've become a better person": Personal growth', participants conveyed developing skills in social problem solving, emotion recognitions, perspective taking and good insight into the risk factors that they perceive contributed to their offending behaviour. Themes one and two were interconnected to theme three '"I'm a changed person": Transforming self', where participants asserted the skills they gained changed their behaviour, criminogenic attitudes and beliefs and developed healthier relationships as a result.

In the fourth superordinate theme, '"I didn't really wanna do it": Facing Adversity', some participants conveyed their fears of being judged by others, resulting in participants' experiencing negative feelings such as anger, shame and distress. The final theme, '"They could learn from us": Share experience', conveyed participants' wanting to share their learning, achievements and group experience with other patients and professionals.

This research study suggests that offenders with ID were able to meaningfully engage with the TSOP. The results from this study have implications for assessing patients' risk factors to reduce their risk of re-offending, as a majority of patients were able to identify factors that contributed to their offending behaviour.

Chapter 4 described the assessment and treatment of an adult male violent offender with mild ID and ASD who undertook the TSOP in a medium secure unit. The assessment highlighted that the patient held a number of cognitive distortions and had deficits in social problem-solving, emotion recognition and regulation, and high impulsivity.

The outcome of the intervention revealed that the patient understood the problem solving process and shifted slightly in his criminogenic attitudes. However, specific responsivity issues impacted on his engagement in treatment including lack of motivation to reduce his risk of re-offending and his autism, which highly likely impacted on his rigid thinking style, his ability to generalise skills and the way in which he learns from his experience. In addition, his frequent disengagement from treatment meant that he had limited time to practice, implement and consolidate his learning. This was supported by the limited shift in results on pre and post measures. However, his care team reported an overall reduction in his aggressive behaviour, and an increase in adherence to care plans.

This case study suggests that the patient was able to access the TSOP and understand the concepts covered within. However, difficulty in applying the learning to himself was limited by his condition. This study has important implications for re-examining existing social problem solving groups for this population in order to specifically support patients with autism and ID to apply their learning to manage situations that may lead them to re-offend. In addition, using a multi-method assessment approach to detect change in behaviour is important, as staffs' observations were considered important in this study.

Chapter 5 examined the NAS-PI and the modified NAS-PI for individuals with an ID. This self-report assessment tool measures anger and assists in the assessment of risk of future violence. It is underpinned by a theoretical model and studies have provided support for its internal consistency, test-retest reliability and concurrent validity. In addition, studies have found the modified version of the NAS-PI to have good internal reliability, concurrent and predictive validity.

The samples used in the initial stages of validation were taken from an American population, thus, reducing its generalisability to other cultures.

In addition, although the NAS-PI has been shown to be validated with a range of clinical and non-clinical samples and cross-culturally, this is not the case with the modified NAS-PI where it is recommended further research is needed. The limitations of self-report measures associated with social-desirability issues in forensic settings were discussed and it is suggested that a multi-method approach would enhance accuracy of the measure.

The NAS-PI has been utilised as a pre and post measure to assess changes in MDOs level of anger and future risk of violence following the completion of social problem solving groups, as highlighted in the systematic review. However, there is very limited research in relation to this tool predicting future risk of violence with ID offenders in secure settings, who have undergone a social problem solving group. This is likely to be related to the limited number of social problem solving groups available for this population as outlined in chapter 3. Thus, these norms are yet to be established.

1.3 Theoretical and Practical Implications

The results from these studies continue to highlight that there is a paucity of research regarding the effectiveness of social problem solving groups with ID offenders in secure settings. The IPA study highlighted that participants conveyed a sense of hope and optimism in relation to receiving appropriate treatment in a secure hospital setting. This suggests the need for services to undertake further research to ensure they are providing the best evidence based treatments for this population. Further, the Good Lives Model (Ward & Gannon, 2006) could be emphasised to help MDOs and ID offenders in secure units focus more on identifying personal strengths and developing meaningful future goals, particularly if they are optimistic about the treatment received and deemed it to be appropriate to help with their offending behaviour.

Further, the IPA study demonstrated that the majority of ID offenders in the study were able to take part in qualitative research and to reflect upon their experiences, suggesting research with individuals with ID is achievable (Nind, 2008). Some participants also expressed a desire to want to share their learning experience with others, suggesting offenders with an ID want to have their voices heard, and one way to achieve this can be through taking part in research and contributing to the existing evidence base. Another possibility could be to allow patients who have finished the group to meet and speak to new potential patients about their learning experience, and to be part of the process in delivering training to staff within services (e.g. to let staff know what support patients require whilst undertaking the programme/practice skills).

In contrast more and more research of the effectiveness of social problem solving programmes with MDOs is evolving. For example, very recently Young, Das and Gudjonsson (2016) conducted a secondary analysis of data previously obtained from 97 male patients detained in low, medium and high secure hospitals in the UK and who had completed the R&R2MHP. The study investigated factors predicting treatment completion and treatment outcome. The study found two factors predicting treatment completion, which included low level of behavioural disturbance on the ward prior to treatment commencing, and patients currently being on oral typical psychotropic medication, which increased over seven times the likelihood that they would complete the programme. Thus a stable mental state was an important factor in treatment completion. Further, the best predictor of treatment effectiveness was found to be attitude towards violence, suggesting that this should be a primary outcome measure in establishing the effectiveness of these programmes. Some these findings support this research for example, in chapter 3 participants' reflected a change in attitude contributed to their offending behaviour, and in chapter 4 when patient A was unsettled on the unit prior to attending TSOP, this impacted upon his engagement in treatment.

Further, results from studies included in the systematic review and from the IPA study suggests engagement in social problem solving programmes can be improved upon by adhering to the responsivity principle (Andrews and Bonta, 2003) and meeting the needs of MDOs and ID offenders. The responsivity principle suggests that the content of interventions should be congruent with the abilities and characteristics of the offenders taking part in the intervention (Hollin, Palmer & Hatcher, 2013). Therefore, delivering shorter programmes such as R&R2MHP that contain modules that are specifically relevant to the problems experienced by MDOs, and combining individual and group sessions which are considered important factors in reducing drop-out in MDOs, may increase responsivity. Further, the TSOP which was specifically designed with ID offenders in mind may also increase responsivity.

The findings from the studies in the systematic review suggest that cognitive skills programmes with MDOs in secure settings are feasible and can improve social problem solving ability. However, the effectiveness of cognitive skills programmes is determined by the appropriate of allocation to programme (Palmer, McGuire, Hatcher, Hounsome, Bilby & Hollin, 2007) and the systematic review found patients with Psychopathy, anti-social PD, and recent violence to be the strongest predictor of drop-out. Therefore, services need to target participants appropriately to groups, and to provide additional support to those who cannot access the group.

In addition, the adversities that participants' highlighted in the IPA study have important implications for future programmes. It suggests that clinicians need to be aware of the difficult emotions patients may experience prior to commencing the programme (e.g. shame and distress) and it may be necessary to discuss how to manage such feelings as part of the assessment and/or during the start of the programme.

The findings from the cognitive skills evaluation studies discussed in chapter 2 and 3 offer support for the underlying theory and treatment needs that social problem solving skills programmes target (i.e. interpersonal problem solving, perspective taking, impulsivity, criminogenic attitudes; Hollin et al., 2013). However, to ensure programme targets are achieved by MDOs and ID offenders, it is important that cognitive skills programmes include approaches to ensure they are accessible to these client groups. These may include the incorporation of visual aids and fictional characters, as suggested in the IPA study to aide understanding. Further, it is important to ensure that cognitive skills programmes are embedded in patients' treatment pathway if deemed necessary, and staff teams to support the implementation of these programmes in secure hospital settings. In addition, as Oakes et al. (2016) suggested it is important to ensure the staff delivering the programmes are fully trained and having additional training in working and supporting MDOs and offenders with ID.

In relation to the individual case study, the TSOP did not fully meet the needs of the ID patient with autism. Therefore, further revisions may need to be made to the programme or a novel programme may need to be developed to meet the needs of this population. To note, Waugh et al. (2014) conducted a pilot study of the R&R2MHP with MDOs and ID inpatients and found a high completion rate, suggesting the programme was accessible to this population. However, much further research is required to examine the effectiveness of the R&R2MHP with ID offenders in secure settings, as outcome data was not provided.

The current findings have also focussed on evaluating the impact of social problem solving programme upon contributing factors to offending. Only one study (Kunz et al., 2004) examined re-arrest rates suggesting that further research is needed in relation to the effects of social problem solving programmes delivered in secure units on re-offending.

In addition, the findings suggest that more robust and standardised measures are needed, particularly for individuals with an ID, and recommendations have been made to combine self-report measures with offence history, observer ratings, and seeking triangulation across different measures (Novaco & Taylor, 2005).

1.4 Limitations of Thesis

Limitations of the current research have been discussed earlier in each chapter and needs to be considered here. Given the heterogeneity and complex needs of MDOs and ID offenders, research in this field has its difficulties in relation to establishing the most appropriate interventions and assessment tools. The systematic review highlighted a number of methodological issues including bias across the studies, suggesting that the effectiveness of social problem solving groups with male and female MDOs cannot be robustly concluded. This review suggests areas for further research with both MDOs and ID offenders in secure settings, and recommends that control groups, long term follow-ups and use of multiple methods of assessment are important in programme evaluation.

Chapter 3 and 4 only examined one social problem solving group (TSOP) for offenders with an ID, limiting generalisability. Further, unlike the structured, manualised CBT programmes used with MDOs (e.g. R&R2MHP) such structured and manualised programmes are limited with ID offenders in secure settings, making it more difficult to employ statistical analysis and to compare findings between services. Similarly, chapter 4 only critiqued one measure the NAS-PI (Novaco, 2003; Novaco & Taylor, 2004), which highlighted good reliability and validity with MDOs and ID offenders. Some progress has been made in the development of risk assessments to help evaluate clients' progress in treatment and rehabilitation with ID offenders (Taylor & Lindsay, 2010) but further research is much needed in this field.

The cognitive skills groups described here are novel evaluations, with MDOs and ID offenders in secure settings. This study has highlighted the methodological limitations of carrying out research with this population, thus results presented in this study need to be interpreted with caution.

1.5 Future Research

As discussed in earlier chapters the majority of evaluations of the R&R2MHP and other social problem solving programmes have been with male MDOs in secure settings. Only two evaluations of social problem solving groups were conducted with female MDOs and two studies with ID male offenders in secure settings; however one of these studies also included a community sample (Kelly, 2014). This review highlights that further research is needed in relation to developing and evaluating social problem solving programmes and assessment tools with female MDOs and male and female ID offenders from different ethnic minority groups and across different levels of security.

To further understand the effectiveness of social problem solving programmes with MDOs and ID offenders and the impact on recidivism, large-scale multi-site randomly controlled trials are needed (Young, 2010). Previous research studies (e.g. Clarke et al., 2004) have also recommended the importance of conducting qualitative research to gain offenders' perspectives on their treatment experiences. The IPA study conducted here has contributed to knowledge in this area and has highlighted the need for further qualitative research with female ID offenders and MDOs. It is vital to establish the most effective treatments for MDOs and ID offenders in secure settings to help rehabilitate offenders back into the community. Thus, it is imperative that research conducted is thorough and to a high standard.

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Appendix A: Search syntax, as applied to OVID PsychINFO, EMBASE and Medline databases.

PsychINFO:

1. PsycInfo; forensic*.ti,ab; 14402 results.
2. PsycInfo; "secure service*".ti,ab; 151 results.
3. PsycInfo; "secure setting*".ti,ab; 222 results.
4. PsycInfo; "secure hospital*".ti,ab; 198 results.
5. PsycInfo; PSYCHIATRIC HOSPITAL PROGRAMS/ OR PSYCHIATRIC HOSPITALS/ OR PSYCHIATRIC
PATIENTS/ OR PSYCHIATRIC UNITS/; 35891 results.
6. PsycInfo; exp MENTALLY ILL OFFENDERS/; 3336 results.
7. PsycInfo; offend*.ti,ab; 29968 results.
8. PsycInfo; PATIENT VIOLENCE/ OR exp PSYCHIATRIC PATIENTS/; 28435 results.
9. PsycInfo; inpatient*.ti,ab; 39850 results.
10. PsycInfo; exp CRIMINAL BEHAVIOR/ OR exp CRIMINAL REHABILITATION/ OR CRIMINALS/ OR FEMALE CRIMINALS/ OR MALE CRIMINALS/; 36346 results.
11. PsycInfo; perpetrator*.ti,ab; 8436 results.
12. PsycInfo; 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11; 135986 results.
13. PsycInfo; "mental health".ti,ab; 132341 results.
14. PsycInfo; "mental* ill*".ti,ab; 0 results.
15. PsycInfo; "mental ill*".ti,ab; 32440 results.
16. PsycInfo; "mental disorder*".ti,ab; 41246 results.
17. PsycInfo; exp MENTAL DISORDERS/; 461524 results.
18. PsycInfo; "personality disorder*".ti,ab; 26501 results.
19. PsycInfo; 13 OR 14 OR 15 OR 16 OR 17 OR 18; 575761 results.
20. PsycInfo; 12 ND 19; 47055 results.
21. PsycInfo; "problem solving".ti,ab; 34288 results.
22. PsycInfo; "thinking skills".ti,ab; 2217 results.
23. PsycInfo; "reasoning and rehabilitation".ti,ab; 44 results.
24. PsycInfo; "enhanced thinking skills".ti,ab; 15 results.
25. PsycInfo; "cognitive behavio* therap*".ti,ab; 0 results.
26. PsycInfo; "cognitive behavio*".ti,ab; 31762 results.
27. PsycInfo; exp COGNITIVE BEHAVIOR THERAPY/ OR exp COGNITIVE THERAPY/; 26535 results.
28. PsycInfo; "cognitive behavio* treatment*".ti,ab; 0 results.
29. PsycInfo; CBT.ti,ab; 9469 results.
30. PsycInfo; "cognitive deficits".ti,ab; 9931 results.
31. PsycInfo; "cognitive skills".ti,ab; 4063 results.
32. PsycInfo; "treatment need*".ti,ab; 1766 results.
33. PsycInfo; "treatment outcome*".ti,ab; 13783 results.
34. PsycInfo; exp TREATMENT EFFECTIVENESS EVALUATION/; 19705 results.
35. PsycInfo; effect*.ti,ab; 1085733 results.
36. PsycInfo; 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35;1153636 results.
37. PsycInfo; 20 ND 36; 12101 results.
38. PsycInfo; "group intervention*".ti,ab; 3192 results.
39. PsycInfo; program*.ti,ab; 316671 results.
40. PsycInfo; 38 OR 39; 318812 results.
41. PsycInfo; 37 ND 40; 2230 results.
42. PsycInfo; 41 [Limit to: Publication Year 1980-2016 and (Age group Adulthood 18 Yrs & Older)]; 1164 results

EMBASE:

2. EMBASE; FORENSIC PSYCHIATRY/; 12105 results.
3. EMBASE; "secure service*".ti,ab; 101 results.
4. EMBASE; MENTAL HEALTH SERVICE/ OR MENTAL HOSPITAL/ OR VIOLENCE/ OR AGGRESSION/ OR FORENSIC PSYCHIATRY/; 150285 results.
5. EMBASE; "secure setting*".ti,ab; 140 results.
6. EMBASE; "secure hospital*".ti,ab; 170 results.
7. EMBASE; forensic*.ti,ab; 42369 results.
8. EMBASE; MENTAL HOSPITAL/; 24139 results.
9. EMBASE; exp OFFENDER/ OR FORENSIC PSYCHIATRY/ OR CRIME/ OR exp MENTAL PATIENT/ OR exp CRIMINAL BEHAVIOR/; 60432 results.
10. EMBASE; offend*.ti,ab; 17047 results.
11. EMBASE; MENTAL PATIENT/ OR PATIENT/; 1353053 results.
12. EMBASE; MENTAL PATIENT/; 20551 results.
13. EMBASE; inpatient*.ti,ab; 109961 results.
14. EMBASE; exp OFFENDER/; 9505 results.
15. EMBASE; exp CRIMINAL BEHAVIOR/ OR VIOLENCE/; 42816 results.
16. EMBASE; perpetrator*.ti,ab; 5006 results.
17. EMBASE; 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16; 1635116 results.
18. EMBASE; MENTAL HEALTH/; 88423 results.
19. EMBASE; exp MENTAL DISEASE/; 1677459 results.
20. EMBASE; "mental* ill*".ti,ab; 32883 results.
21. EMBASE; "mental disorder*".ti,ab; 33896 results.
23. EMBASE; PERSONALITY DISORDER/; 24300 results.
24. EMBASE; 18 OR 19 OR 20 OR 21 OR 23; 1727148 results.
25. EMBASE; 17 AND 24; 237786 results.
26. EMBASE; PROBLEM SOLVING/; 28550 results.
27. EMBASE; "thinking skills".ti,ab; 925 results.
28. EMBASE; "reasoning and rehabilitation".ti,ab; 24 results.
29. EMBASE; "enhanced thinking skills".ti,ab; 8 results.
30. EMBASE; "cognitive behavio* therap*".ti,ab; 14481 results.
31. EMBASE; "cognitive behavio*".ti,ab; 26141 results.
32. EMBASE; COGNITIVE THERAPY/; 39745 results.
33. EMBASE; "cognitive behavio* treatment*".ti,ab; 2354 results.
34. EMBASE; CBT.ti,ab; 9761 results.
35. EMBASE; "cognitive deficits".ti,ab; 18975 results.
36. EMBASE; "cognitive skills".ti,ab; 2564 results.
37. EMBASE; "treatment need*".ti,ab; 5672 results.
38. EMBASE; TREATMENT OUTCOME/; 707685 results.
39. EMBASE; effective.ti,ab; 1277527 results.
40. EMBASE; 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39;1973712 results.
41. EMBASE; 25 AND 40; 32001 results.
42. EMBASE; "group intervention".ti,ab; 2649 results.
43. EMBASE; program*.ti,ab; 785714 results.
44. EMBASE; 42 OR 43; 787466 results.
45. EMBASE; 41 AND 44; 5218 results.
46. EMBASE; 45 [Limit to: Human and (Human Age Groups Adult 18 to 64 years) and (Year Published Last 35 Years)]; 1619 results.

Medline:

1. Medline; forensic*.ti,ab; 32246 results.
2. Medline; FORENSIC PSYCHIATRY/; 8295 results.
3. Medline; "secure service*".ti,ab; 58 results.
4. Medline; "secure setting*".ti,ab; 76 results.
5. Medline; "secure hospital*".ti,ab; 98 results.
6. Medline; exp HOSPITALS, PSYCHIATRIC/; 23625 results.
7. Medline; "mentally ill offender*".ti,ab; 171 results.
8. Medline; offend*.ti,ab; 12644 results.
9. Medline; patient*.ti,ab; 5015786 results.
10. Medline; INPATIENTS/; 14873 results.
11. Medline; CRIME/ OR exp CRIMINALS/; 16069 results.
12. Medline; perpetrator*.ti,ab; 3967 results.
13. Medline; 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12; 5090543 results.
14. Medline; "mental health".ti,ab; 89815 results.
15. Medline; "mental* ill*".ti,ab; 0 results.
16. Medline; "mental ill*".ti,ab; 20922 results.
17. Medline; "mental disorder*".ti,ab; 26517 results.
18. Medline; "personality disorder*".ti,ab; 15452 results.
19. Medline; 14 OR 15 OR 16 OR 17 OR 18; 136828 results.
20. Medline; 13 AND 19; 49302 results.
21. Medline; "problem solving".ti,ab; 13207 results.
22. Medline; "thinking skills".ti,ab; 788 results.
23. Medline; "reasoning and rehabilitation".ti,ab; 14 results.
24. Medline; "enhanced thinking skills".ti,ab; 2 results.
25. Medline; "cognitive behavio* therap*".ti,ab; 0 results.
26. Medline; "cognitive behavio*".ti,ab; 17756 results.
27. Medline; "cognitive therap*".ti,ab; 2203 results.
28. Medline; "cognitive behavio* treatment*".ti,ab; 0 results.
29. Medline; CBT.ti,ab; 6222 results.
30. Medline; "cognitive deficits".ti,ab; 12676 results.
31. Medline; "cognitive skills".ti,ab; 2011 results.
32. Medline; "treatment need*".ti,ab; 4703 results.
33. Medline; "treatment outcome*".ti,ab; 30716 results.
34. Medline; effect*.ti,ab; 5185943 results.
35. Medline; 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34; 5235903 results.
36. Medline; 20 AND 35; 14612 results.
37. Medline; "group intervention".ti,ab; 1608 results.
38. Medline; program*.ti,ab; 622577 results.
39. Medline; 37 OR 38; 623636 results.
40. Medline; 36 AND 39; 2388 results.
41. Medline; 40 [Limit to: Publication Year 1980-2016 and (Age group Adult) and Humans]; 1100 results.

Appendix B: Inclusion/exclusion criteria of studies in the review

	Inclusion	Exclusion
Population	• Adults (>18 years) • Male or female • Offenders - convicted of at least one offence • Sectioned under the Mental Health Act (1983 and Amended 2007) • Must have a diagnosis of mental illness and/ or personality disorder	• Male or female Adolescent offenders (<18 years) • Non-offenders • Offenders with no convictions • Offenders not Sectioned under the Mental Health Act (1983 and Amended 2007) and do not have a mental illness. • Offenders who are being detained in prisons establishments • Offenders who are on parole and under the supervision of the probation service. • Offenders with a LD
Intervention	Cognitive behavioural therapy based *group* interventions, which are informed by psychological theory. These programmes to address social problem solving deficits in offenders. For example: • Reasoning & Rehabilitation (R&R) • Reasoning & Rehabilitation 2 (R&R2) (Adapted for MDO's) • Enhanced Thinking Skills (ETS)	• Individually based Cognitive behavioural therapy • Group interventions that are not CBT based or psychologically informed by theory • Group interventions that do not address social problem solving deficits • Pharmacological intervention (medication) • Psychodynamic

	• Thinking Skills Programme (TSP)	approaches.
Comparator	May have a control group but not necessary.	
Outcomes	• Re-offending/recidivism measured by reconviction rates • Standardised psychometric assessments • Self-report measures • Attitude scales • Observational measures	• Feedback from institutional staff only
Study Design	• Randomised Control Trials (RCT's) • Quasi-experimental studies • Cohort studies • Case control studies	• Single case • Case series • Qualitative
Context	Forensic secure services including: • High secure hospitals • Medium secure hospitals • Low secure hospitals	• Prison establishments and correctional facilities • Community settings including probation services'

Appendix C: Study Eligibility Form

Title:
Author:
Publication date:

Inclusion criteria	Assessment	Comments
Study Design:		
• RCT • Quasi-experimental • Cohort • Case-control	**YES** **NO** **UNCLEAR**	
Population:		
• Adults (>18 years) • Male or female • Offenders - convicted of at least one offence • Sectioned under the Mental Health Act (1983 and Amended 2007) • Must have a diagnosis of mental illness and /or personality disorder	**YES** **NO** **UNCLEAR**	
Intervention:		
Cognitive behavioural therapy based **group** interventions to address social problem solving deficits in offenders such as: • Reasoning & Rehabilitation (R&R)		

• Reasoning & Rehabilitation 2 (R&R2) (Adapted for MDOs) • Enhanced Thinking Skills (ETS) • Thinking Skills Programme (TSP)	**YES** **NO** **UNCLEAR**	
Outcomes:		
• Re-offending/recidivism measured by reconviction rates • Standardised psychometric assessments • Self-report measures • Attitude scales • Observational measures	**YES** **NO** **UNCLEAR**	
Context:		
Forensic secure services including: • High secure hospitals • Medium secure hospitals Low secure hospitals	**YES** **NO** **UNCLEAR**	
Comparator Control group	**YES** **NO** **UNCLEAR**	
Final Decision: If all questions answered yes – Include If any questions answered no – Exclude If any questions unclear – Read full article to make a decision.	**Include** **Exclude** **Read full article**	

Appendix D: Quality Assessment Tool for assessing experimental studies.

Author:

Title of study:

Date of publication:

Assessment of Quality	Y 2	P 1	N 0	U	Comments
Selection and sampling bias					
1. Did the study address a clearly focused issue?					
2a. Is the study assessing offenders with either a mental illness or personality disorder?					
2b. Is there a clear and appropriate classification of patient's mental disorder / personality disorder?					
3. Is there adequate information about participants and their offences?					
4. Were treatments randomly allocated?					
5. Was the allocation sequence concealed from researchers and participants?					
6. Were the mentally disordered/ personality disordered offenders and comparison groups matched or similar at baseline on demographics?					
7. Did the authors consider or identify all important confounding variables?					
8. If potential confounders were identified were they taken into account/ adjusted for the effects in the design and/or analysis?					
9. Was the inclusion criteria for participants reported?					
10. Are the social problem solving groups sufficiently described?					
Performance bias					
11. Were the outcome assessors blinded to the status of the participants and scoring of the measures?					
12. Were the interventions consistent across all groups?					
13. Was the outcome assessed in the same way across groups?					
Measurement and detection bias					
14. Were the outcome measures standardised?					
15. Were the outcome measures reliable and valid?					
16. Were the outcome measures used comparable to measures used across other studies?					
Attrition bias					
17. Were withdrawals and drop outs reported in terms of number and/or reasons per group?					

18. Were participants who completed the study and those who withdrew from the study similar?					
19. Was the missing data dealt with appropriately?					
20. Was a follow up conducted?					
21. If yes, was the follow up of participants long enough for outcome to occur?					
Results					
22. Were appropriate statistical tests used for the outcome of the study?					
23. Was the sample size sufficient to generalise from?					
24. Were the results and conclusions of the study influenced by bias or any confounding factors?					
Column totals					
Total score:					
Percentage:					

Devised from using the following sources:

- *Critical Appraisal Skills Programme (CASP- 2013);*
- *Appraising Clinical Trials, Ian Crombie (1996);*
- *Quality Index, Downs & Black (1998);*
- *Effective Public Health Practice Project (EPHPP -1998) and*
- *Standard quality assessment criteria for evaluating primary research papers from a variety of fields, Kmet, Lee & Cook (2004).*

Appendix E: Quality Assessment Tool for assessing cohort studies.

Author:

Title of study:

Date of publication:

Assessment of Quality	Y 2	P 1	N 0	U	Comments
Selection and sampling bias					
1. Did the study address a clearly focused issue?					
2a. Is the study assessing offenders with either a mental illness or personality disorder?					
2b. Is there a clear and appropriate classification of patient's mental disorder / personality disorder?					
3. Is there adequate information about participants and their offences?					
4. Is the cohort chosen to participate in the study representative of the stated population (e.g. mentally disordered/ personality disordered offenders?					
5. Was a control group used?					
6. If yes, were the mentally disordered/ personality disordered offenders and comparison groups matched or similar at baseline on demographics?					
7. Did the authors consider or identify all important confounding variables?					
8. If potential confounders were identified were they taken into account/ adjusted for the effects in the design and/or analysis?					
9. Was the inclusion criteria for participants reported?					
10. Are the social problem solving groups sufficiently described?					
Performance bias					
11. Were the outcome assessors blinded to the status of the participants and scoring of the measures?					
12. Were the interventions consistent across all groups?					
13. Was the outcome assessed in the same way across groups?					
Measurement and detection bias					
14. Were the outcome measures standardised?					
15. Were the outcome measures reliable and valid?					
16. Were the outcome measures used comparable to measures used across other studies?					
Attrition bias					
17. Were withdrawals and drop outs reported in					

terms of number and/or reasons per group?					
18. Were participants who completed the study and those who withdrew from the study similar?					
19. Was the missing data dealt with appropriately?					
20. Was a follow up conducted?					
21. If yes, was the follow up of participants long enough for outcome to occur?					
Results					
22. Were appropriate statistical tests used for the outcome of the study?					
23. Was the sample size sufficient to generalise from?					
24. Were the results and conclusions of the study influenced by bias or any confounding factors?					
Column totals					
Total score:					
Percentage:					

Devised from using the following sources:

- *Critical Appraisal Skills Programme (CASP- 2013);*
- *Appraising Clinical Trials, Ian Crombie (1996);*
- *Quality Index, Downs & Black (1998);*
- *Effective Public Health Practice Project (EPHPP -1998) and*
- *Standard quality assessment criteria for evaluating primary research papers from a variety of fields, Kmet, Lee & Cook (2004).*

Appendix F: Studies excluded from the review and reasons for exclusion

No.	Reference	Reason for Exclusion
1	Allen, L. C., Mackenzie, D. L., & Hickman, L. J. (2001). The effectiveness of cognitive behavioral treatment for adult offenders: a methodological, quality-based review. *International Journal of Offender Therapy and Comparative Criminology*, 45 (4), 498-514.	Meta-analysis
2	Ashford, J., Wong, K. W., & Sternbach, K O. (2008). Generic correctional programming for mentally ill offenders: A pilot study. *Criminal Justice and Behavior*, 35 (4), 457-473.	Community based intervention
3	Baker, L. (1995). Training mentally ill offenders in problem-solving. *Dissertation Abstracts International: Section B: The Sciences and Engineering,* 56 (1-B), 515.	Only abstract available. Unable to obtain the journal article
4	Dean, K. (2013). A multi-centre RCT of a group psychological intervention to reduce antisocial behaviour in a medium secure setting. *Australian and New Zealand journal of psychiatry,* 47, 18-19.	Conference presentation abstract
5	Donnelly, J. P., & Guy, S. (1998). Evaluation of a first-stage pilot project to address offending behaviour in a mentally disordered offender population in Scotland. *Psychiatric Care*, 5 (3), 106-108, 110-111.	Limited information available in the results section.
6	Doyle, M., Khanna, T., Lennox, C., Shaw, J., Hayes, A., Taylor, J., Roberts, A., & Dolan, M. (2013). The effectiveness of an enhanced thinking skills programme in offenders with antisocial personality traits. *Journal of Forensic Psychiatry & Psychology*, 24 (1), 1-15.	Prison setting

7	Duncan, E. A.S., Nicol, M. M., Ager, A., & Dalgleish, L. (2006). A systematic review of structured group interventions with mentally disordered offenders. *Criminal Behaviour and Mental Health*, 6, 217-241.	Systematic Review
8	Falloon, I. R. H. (2000). Problem solving as a core strategy in the prevention of schizophrenia and other mental disorders. *The Australian and New Zealand Journal of Psychiatry*, 34, Suppl, 185-190.	General mental health setting not an offender population. Community based intervention
9	Favrod, J., Caffaro, M., Grossenbacher, B., Rubio, A., & Von Turk, A. (2000). Entraînement à la résolution de problèmes interpersonnels avec des personnes atteintes de schizophrénie dansdifférentes conditions de traitement. *Annales Médico-Psychologiques*, 158 (4), 302-311.	General mental health setting not an offender population. Community based intervention
10	Fleck, D., Thompson C. L., & Narroway, L. (2001). Implementation of the Problem Solving Skills Training Programme in a medium secure unit. *Criminal Behaviour and Mental Health*, 11 (4), 262-272.	Post programme results not reported
11	Gorman, K. (1993). Rectitude and redemption. *Probation Journal*, 40 (3), 147-148.	Discussion paper
12	Gretenkord, L. (2004). R&R treatment effects: Haina Pilot Study. Germany: *Unpublished report prepared for the Haina Forensic Psychiatric Hospital*.	Presentation
13	Grey, S. J. (2007). A structured problem-solving group for psychiatric inpatients. *Groupwork*, 17 (1), 20-33.	Acute inpatient mental health service not an offender population. No evaluation.
14	Herrick, S. M. (1995). Problem-solving appraisal and the prediction of outcome in a dual diagnosis treatment program. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 55, (10-B), 0419-4217.	General mental health setting not an offender population

15	Homewood, J., & Smith, R. (2009). Sharing Solutions': Reflections on a social problem solving group in a forensic setting. *Clinical Psychology Forum*, 201, 41-45.	Discussion paper: Reflections on setting up a social problem solving group.
16	Hughes, G., Hogue, T., Hollin, C. R., & Champion, H. (1997). First-stage evaluation of a treatment programme for personality disordered offenders. *Journal of Forensic Psychiatry*, 8, 515-527.	Multi-component treatment programme. Measured global change not specific to social problem solving intervention.
17	Knabb, J., Welsh, R., & Graham-Howard, M. (2011). Treatment alternatives for mentally disordered offenders: A literature review. *Psychology,* 2 (2), 122-131.	Literature Review
18	McGuire, J. (2000). Problem solving training: pilot work with secure hospital patients. In Mercer D, Mason, T, McKeown, M, McCann, G (Eds). *Forensic Mental Health Care: A case study approach.* Edinburgh: Churchill Livingstone.	Book chapter and quantitative data not reported.
19	McMurran, M., & Duggan, C. (2005). The manualization of a treatment programme for personality disorder. *Criminal Behaviour & Mental Health*, 15 (1), 17-27.	Discussion paper
20	McMurran, M., Huband, N., & Duggan, C. (2008). A comparison of treatment completers and non-completers of an in-patient treatment programme for male personality-disordered offenders. *Psychology and Psychotherapy: Theory, Research and Practice*, 81, 193-198.	Examining why patients do not complete treatment as part of a multi-component treatment programme not specific to social problem solving intervention.
21	McMurran, M., & Wilmington, R. (2007). A Delphi survey of the views of adult male patients with personality disorders on psycho-education and social problem-solving therapy. *Criminal Behaviour and Mental Health,* 17 (5), 293-299.	Survey design – qualitative and quantitative data

22	Morgan, R. D., Kroner, D. G., Mills, J. F., Bauer, R. L., & Serna, C. (2013). Treating justice involved persons with mental illness. *Criminal Justice and Behavior*, 1-15.	Partly a community based intervention. Multi-component treatment programme not specific to social problem solving.
23	Pipon-Young, L., & Cole, S. (2012). A preliminary evaluation of a Systems Training for Emotional Predictability and Problem Solving (STEPPS) group in a women's forensic medium secure unit. *Clinical Psychology Forum*, 239, 35-39.	Reflection/discussion paper. No formal evaluation.
24	Quayle, M., & Moore, E. (1998). Evaluating the impact of structured groupwork with men in a high security hospital. *Criminal Behaviour and Mental Health*, 8, 77-91.	Different intervention – Interpersonal relationship group and anger management group
25	Rees-Jones, Angharad (2011) Examining the utility of assessment tools and group intervention programmes for mentally disordered offenders. Foren.Psy.D. thesis, University of Birmingham. Retrieved March 2016 from http://etheses.bham.ac.uk/3069/1/ReesJones11ForenPsyD.pdf	Systematic Review
26	Timmerman, I.G.H., & Emmelkamp, P.M.G. (2005). The effects of cognitive-behavioral treatment for forensic inpatients. *International Journal of Offender Therapy and Comparative Criminology*, 49, 590-606.	Effectiveness of a multi-component cognitive behavioural treatment programme. Results are not specific to a social problem solving intervention.
27	Travers, R., Riddy, R. (2008). Cognitive skills training with sex offenders. *Prison Service Journal*, 178, 10-14.	Discussion paper: Cognitive skills groups with sex offenders but not mentally disordered offenders.
28	Tyler, Suzannah Marie (2012) An examination of the rehabilitation process of adult male offenders with a mental disorder. DForenPsy thesis, University of Nottingham. Retrieved March 2016 from	Systematic Review

	http://eprints.nottingham.ac.uk/12934/1/Suz_2_201211061802.pdf	
29	Van Voorhis, P., Spiropoulos, G., Ritchie, P. N., Seabrook, R., & Spruance, L. (2013). Identifying areas of specific responsivity in cognitive-behavioral treatment outcomes. *Criminal Justice and Behavior*, 40 (11), 1250-1279.	Male parolees Community based intervention
30	Van Voorhis, P., Spruance, L. M., Ritchey, P. N., Listwan, S. J., & Seabrook, R. (2004). The Georgia cognitive skills experiment: A replication of Reasoning and Rehabilitation. *Criminal Justice and Behavior*, 31 (3), 282-305.	Male parolees Community based intervention
31	Wettermann, A., Schläfke, D., & Fegert, J. M. (2012). The modification of criminogenic factors on addicted offenders. The effectiveness of the Reasoning and Rehabilitation Program. *International Journal of Law and Psychiatry*, 35 (3), 202-206.	Male offenders but excluded mentally disordered offenders.
32	Wilkinson, J. (2005). Evaluating evidence for the effectiveness of the Reasoning and Rehabilitation Programme. *The Howard Journal*, 44 (1), 70-85.	Offenders on probation. Community based day programme
33	Wilson, D. B., Bouffard, L. A., & Mackenzie, D. L. (2005). A quantitative review of structured, group-oriented, cognitive-behavioural programs for offenders. *Criminal Justice and Behavior,* 32 (2), 172-204.	Review
34	Wilson, R. J. (2005). Are cognitive problem-solving skills programmes really not working? A response to 'evaluating evidence for the effectiveness of the reasoning and rehabilitation programme'. *The Howard Journal*, 44 (3), 319-321.	Discussion paper of the effectiveness of the R&R programme

Appendix G: Data Extraction Form

Adapted from CRD's guidance for undertaking reviews in healthcare (2008) and Cochrane Handbook for Systematic Reviews of Interventions [updated March 2011].

General information	**Comments**
Researcher performing data extraction	
Date of data extraction	
Record number	
Author	
Article title	
Citation & Year	
Type of publication *(e.g. journal, conference abstract)*	
Country of origin	
Source of funding	
Study Characteristics	
Aim/objectives	
Study design	
Study inclusion and exclusion criteria	
Recruitment procedures *(e.g. randomisation, blinding)*	Method of randomisation: Type of blinding (single, double, triple, not possible)

Participant Characteristics	
Age	
Gender	Male Female
Ethnicity	
Socio-economic status	
Diagnosis of Mental illness	
Diagnosis of Personality Disorder	
Number of offences	
Offence type	
Number of participants in intervention	
Number of participants in control group	
Intervention & Setting	
Setting in which intervention delivered	
Description of the intervention and controls *(e.g. duration of programme,*	

theoretical basis, how it was developed, how its delivered)	
Description of any co-interventions delivered	
Outcome data/ Results	
For each pre-specified outcome:	
Whether reported	
Definition used in study	
Measurement tool / method used (e.g. purpose, administrative procedures, duration of assessment, training requirements)	
Length or follow-up, number and/or times of follow up measurements	From_____ till_____
For all intervention group(s) and control group(s)	
Number of participants enrolled	
Number of participants included in analysis	
Number of withdrawals,	

exclusions, lost to follow-up	
Confounders	
Summary outcome data (e.g. Dichotomous: number of events, number of participants Continuous: mean and standard deviation)	
Type of analysis used in study	
Statistical tests used	
Results of study (e.g. Dichotomous: odd ratio, risk ratio and confidence intervals, p-value Continuous: mean difference, confidence intervals)	
Does the study adjust for confounding?	
How was missing data dealt with?	
Additional outcomes	
Costs	
Resource use	
Adverse events	
Notes	

Appendix H: Poster presented at the LINK 16 student-led interdisciplinary research conference

The Effectiveness of Social Problem Solving Programmes in Forensic Secure Services for Reducing Recidivism in Mentally Disordered Offenders: A Review of the Literature following a Systematic Approach

Rani Dhaliwal & Dr Nigel Hunt

The Centre for Forensic and Family Psychology, Division of Psychiatry and Applied Psychology, School of Medicine, The University of Nottingham

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

1. Introduction & Aims

The number of people detained in secure hospitals and prisons is increasing and reconviction rates suggest that within 5 years of release 15% of mentally disordered offenders (MDOs) will re-offend (Ministry of Justice, 2008). Thus, there is a demand for evidence based treatments to alleviate this pressure (Rees-Jones et al., 2012). Research indicates that predictors of recidivism are similar for offenders with and without mental disorder, which include maladaptive beliefs and attitudes and poor social problem solving ability. A number of cognitive behavioural treatment programmes have been developed in the prison service with the aim to change the criminogenic thinking of offenders (Tong & Farrington, 2006), including Reasoning & Rehabilitation (R&R) and Enhanced Thinking Skills (ETS). However, cognitive skills programmes have not been widely used with MDOs (McGuire, 2000) and until recently, even though ETS and R&R were not designed for MDOs, a number of studies indicated that they were effective in improving social problem solving in this population (Rees-Jones et al, 2012). However, the effectiveness of such programmes for MDOs and/or personality disordered (PD) offenders in forensic secure services is not well established.

Aim: To assess the quality of research studies, which have evaluated social problem solving groups with MDOs and to examine whether there is a reduction in factors contributing to recidivism and/or in recidivism.

2. Method

Inclusion criteria: *The following criteria needed to be met by each of the studies to be included in the review.*

POPULATION	MDOs (Inc. PD), male or female aged 18 and over
INTERVENTION	Cognitive -behavioural based groups to address social problem solving deficits
COMPARATOR	Control group but not a requirement
OUTCOMES	Reconviction data, psychometric assessments, self-report and observational measures
STUDY DESIGN	RCT, Quasi-experimental, cohort
CONTEXT	High, medium, low secure hospitals

Sources of literature: *A comprehensive systematic approach was undertaken to source relevant studies which included the following:*

Bibliographic databases: Medline, PsycINFO, EMBASE and ASSIA

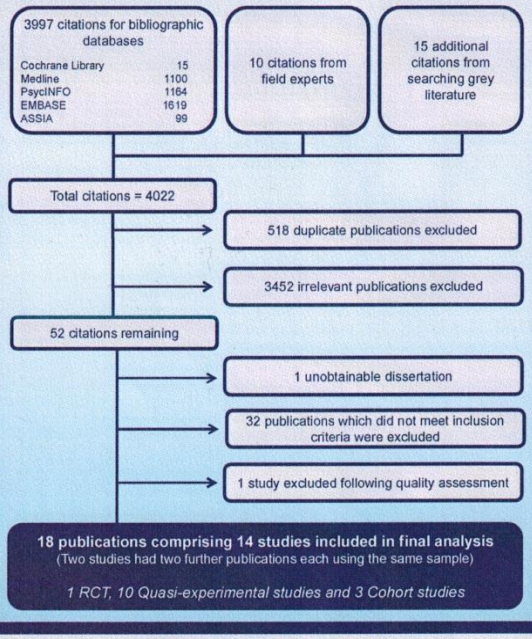
Other sources:

- E-Thesis Portals
- Hand search of the reference lists of retrieved systematic reviews and primary studies
- Contacted field experts
- Grey literature

Search terms: *(forensic*) OR (secure setting*) OR (secure hospital*) OR (psychiatric) OR (offend*) OR (patient*) OR (inpatient*) AND (mental health) OR (mental disorder*) OR (mental illness*) OR (personality disorder*) AND (problem solving) OR (thinking skills) OR (Reasoning and Rehabilitation) OR (Enhanced Thinking Skills) OR (cognitive behavio*) OR (CBT) OR (cognitive deficits) OR (cognitive skills) OR (treatment need*) OR (treatment outcome*) OR (Effect*) AND (group intervention) OR (program*)*

Quality Assessment: A standard quality assessment tool (Kmet, Lee & Cook, 2004) was used to assess the quality of the studies. This included selection, sampling, performance, measurement and attrition bias.

3. Results of Search Strategy



4. Results

All 14 studies reported benefits of the social problem solving groups with MDOs in secure settings. A total of 788 participants were recruited from 4 high; 23 medium, and 5 low secure hospitals. Three studies did not specify level of security. Altogether there were 7 different cognitive skills programmes (i.e. Reasoning and Rehabilitation (R&R); Reasoning and Rehabilitation Mental Health Program (R&R2MHP); Reasoning and Rehabilitation ADHD (R&R2ADHD); Stop and Think; Enhanced Thinking Skills (ETS); System for Treatment and Abatement of Interpersonal Risk (STAIR) and In vivo Training of Goal-directed Actions' (IVTA).

These cognitive skills groups were found to improve social problem solving ability; coping processes, behavioural control and emotional stability. They were also found to reduce antisocial attitudes and behaviour; anger problems; ADHD symptoms and one study found lower re-arrest rates compared to studies with similar populations.

Overall drop-out rate was found to be higher in the R&R programme but lower in the adapted programmes (e.g. R&R2MHP). Psychopathy, anti-social PD, and recent violence appeared to be the strongest predictors of drop-out. Thus, these programmes may not meet the needs of patients who display high levels of impulsivity, poor behaviour control and anti-social and psychopathic traits.

5. Discussion/ Conclusion

The findings suggest that social problem-solving groups for men and women MDOs in secure settings are feasible and can effect positive changes in social problem-solving abilities.

Several studies identified that the shorter revised programmes (i.e. R&R2MHP and R&R2ADHD) had lower drop-out rates, thus, being more cost-effective than the original R&R program, which contains more than twice as many sessions and had a much higher drop-out rate. Further, the combination of individual and group sessions in the revised groups were likely to be important factors in limiting drop-out. In addition, the adapted programmes contain modules that are specifically relevant to the problems experienced by MDOs, which increases responsivity factors in this population.

However, some studies reported that drop-out may be associated with high risk patients, suggesting that completion rates may be inflated by the inclusion of lower risk patients. Thus, it is important to identify predictors of treatment drop-out, as this will have implications for the selection of participants for treatment and the management of high risk patients.

These studies provide a good starting point. However, a number of methodological issues were identified, and the cognitive skills groups described here are novel evaluations, with MDOs in secure settings. Therefore, further research of such group interventions is required.

6. Recommendations

Future studies should consider using a randomised controlled design; objective measures including reconviction data; standardised measures including for a female population; control groups; post group follow-up data/ longer follow up period; a larger sample size in a range of forensic settings and identify characteristics of those MDOs who benefit most from the intervention.

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*Teed, J., Fellowes, E., Wright, H., Blud, L., & Moore, E. (2010). An evaluation of the Enhanced Thinking Skills (ETS) programme with mentally disordered offenders in a high security hospital. *Legal and Criminological Psychology, 14*, 251-272.

*Tyler, N. C. T., Gudjonsson, G. H., Perkins, D., Doidge, A., Hayden, D., & Young, S. (2012). A non-randomised controlled trial of the R&R2MHP cognitive skills program in high risk male offenders with severe mental illness. *BMC Psychiatry, 12*, 207.

*Young, S., Chunk, K., & Gudjonsson, G. (2012). A preliminary evaluation of reasoning and rehabilitation 2 in mentally disordered offenders (R&R2M) versus two secure forensic settings in the United Kingdom. *Journal of Forensic Psychiatry & Psychology, 21* (3), 336-346.

*Young, S., Hopkin, G., Perkins, D., Fen, C., Doidge, A., & Gudjonsson, G. (2012). A controlled trial of a cognitive skills program for personality disordered offenders. *Journal of Abnormal Disorders, 17* (7), 594-607.

Appendix I: Interview schedule

The following interview schedule will be used as a guide during the interview process to facilitate interactions with the participants and explore their experiences of the Thinking Skills Offender Programme, and their understanding of the factors that have contributed to their offending behaviour. It is envisaged that although the schedule will steer the interview in a certain direction with an aim to answer the research questions, it is designed as an exploratory tool, which will be flexible enough to allow the interviewer to closely follow participants' responses, deviate from questions to follow up on participants' comments, clarify meaning and explore wider topic areas. This method of interview will assist in building a rapport and empathy with the participants and allow the interview to be **participant led**.

The interview schedule adheres to guidelines from Interpretative Phenomenological Analysis (IPA), and its development was largely guided by Smith, Flowers and Larkin (2009). They argue that the benefit of having an interview schedule will make researchers think openly about their expectations of the interview and plan ahead to manage any anticipated difficulties. It will also allow the interviewer to be more attentive, focused and responsive to the needs of the participant during the interview. Furthermore, they state that without an interview schedule, the interviewer may feel apprehensive about the interview, resulting in the interview being conducted at a rapid pace, closed questions being asked, and leading the participant. Smith et al. (2009) argue that the aim of the interview is to allow the participants to tell the researcher what it is like to live a particular experience (i.e., the Thinking Skills Offender Programme) from their perspective. Attempts to identify what participants think about the researcher's view of their particular experience should be avoided (i.e., avoid pre-conceived ideas about the phenomena).

As the interviews will be with people with intellectual disabilities, the prompts constructed under each of the main questions are more directive, as recommended by the literature (Clarke, Lhussier, Minto, Gibb & Perini, 2005). This will allow the breakdown of complex concepts, assist participants with understanding the questions more easily, and give participants the opportunity to discuss their experience. As this interview schedule is a guide, it may not be necessary to ask all of the prompt questions, as it is anticipated that much of the key information needed to answer the research questions will arise during the interview process itself. The interviewer will use appropriate interview techniques (including paraphrasing and summarising) to elicit further information about a topic (e.g., What else? Tell me more).

The interview schedule

I would like to find out about your experience of the Thinking Skills Offender Programme. We have one hour to talk and I would like you to just think about the questions and try and answer them in as much detail as you can. Do not worry, there are no right or wrong answers. This is your chance to be open and honest about your experience of the group and to tell me what you have learnt from it and what you might have found difficult.

(Present the symbolised card and let participants know that they can end the interview if they wish, take a break and ask for clarification if they do not understand something).

Have you got any questions before we start?

1) Can you first tell me why you are at XXXXXX Hospital?

Research Question 1: What are intellectually disabled offenders' experiences of the thinking skills offender programme?

(Present the diary tool and explain that they can refer to this diary if they feel it will help them to talk about the group experience).

2) Why did you decide to go to thinking skills?
   Prompts:
   - What were you hoping to get out of the group?
   - How did you achieve these goals?
   - What made you want to complete the group?

3) What is it like to attend thinking skills?
   Prompts:
   - What was it like to attend the group?
   - What kinds of things did you talk about?
   - Can you tell me about one session that sticks out in your mind that you found helpful? What was helpful?
   - Can you tell me about one session that sticks out in your mind that you found unhelpful? What was unhelpful?
   - In what way were the tutors helpful or unhelpful?

4) How did you feel being in the group?
   Prompt:
   - What was helpful and unhelpful about this experience and why?

5) How did you feel being in a group with other patients?
   Prompt:
   - What was helpful and unhelpful about this experience and why?

6) What do you think other people thought about you attending thinking skills?

7) How did you feel after you completed thinking skills?

Research Question 2: What skills and benefits do intellectually disabled offenders think they acquire through the process of undertaking the thinking skills offender programme?

8) What have you learnt / gained from being in the group?
   Prompts:
   - What have you learnt about yourself through the group?
   - What have you learnt about other people through the group?
   - What is the most important thing you have learnt from the group?

9) What particular skills have you learnt from the group?

10) How do you think you could you use these skills in the future?

Research Question 3: What impact do intellectually disabled offenders perceive the TSOP has had on factors contributing to their offending behaviour?

11) Do you think you have changed because of the thinking skills group? If so, in what way?
Prompts:
- What skills have you gained from the group that will help you to stop offending?
- How would you manage your difficult emotions now?

12) Has the group helped you with your offending behaviour? If yes, how? If no, why not?

13) How do you think thinking skills will help you to not reoffend?

14) What do you think about your offending behaviour now?
Prompts:
- Think about one of your past offences, what could you have done differently?
- What are your beliefs and attitudes about your offending now?

Research Question 4: What further support do intellectually disabled offenders think they need from the TSOP?

15) Can you tell me what was unhelpful/ bad about going to the group?
Prompts:
- What would you like to change about the group?
- What would be more helpful?
- What advice might you give to another patient who was about to do the group?

16) Do you have any last thoughts that you would like to share about being in the group?

Thank you very much for taking part in the study. Do you have any questions?

Optional - Debrief session

1. How did you find the interview?
2. Are you feeling worried / upset about anything? If yes, what are you worried about?
3. Discuss the various different ways to support the participant.

Appendix J: Information letter for professionals

Ranjit (Rani) Dhaliwal (Trainee Forensic Psychologist)
Doctorate in Forensic Psychology
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NG8 1BB

Work e-mail: ranjit.dhaliwal@covwarkpt.nhs.net
Work Telephone Number: 0121 329 4949

1st August 2013

Dear Sir/Madam,

Re: Intellectually disabled offenders' experience of the Thinking Skills Offender Programme.

I work at XXXXXXXXX Hospital in the psychology department and am currently undertaking my Doctorate in Forensic Psychology at the University of Nottingham. As part of my course I am required to conduct a piece of psychological research under the supervision of my clinical supervisor Dr. Su Thrift (Lead and Consultant Clinical Psychologist) and research supervisors, Dr. Simon Duff (Director, Top-up Doctorate in Forensic Psychology) and Dr. Kate Whitfield (Lecturer in Forensic Psychology).

What is the purpose of the study?

The study aims to explore the experiences of intellectually disabled offenders in the Thinking Skills Offender Programme (TSOP) and their perceptions of the impact of the programme on factors contributing to their offending behaviour. The following research questions will be addressed:

1) What are intellectually disabled offenders' experiences of the TSOP?
2) What skills and benefits do intellectually disabled offenders think they acquire through the process of undertaking the TSOP?
3) What impact do intellectually disabled offenders perceive the TSOP has had on factors contributing to their offending behaviour?
4) What further support do intellectually disabled offenders think they need from the TSOP?

What are the possible benefits for the patients taking part in the study?

The study will allow participants a chance to reflect on their treatment and on their own experiences in order to gain a better understanding of themselves and the impact the programme has had on their offending behaviour. The study will also allow people with intellectual disabilities a chance to speak up about their experiences of the group and to be heard. Furthermore, they can help to improve future groups for other patients.

The results of the study will reduce the significant gap that exists in clinical and theoretical knowledge surrounding the impact of cognitive skills programmes for people with intellectual disabilities in a secure inpatient setting. It is anticipated that this study will make valuable contributions to treatment and risk management strategies for this population.

Who will be invited to participate in the study?

The study focuses specifically on intellectually disabled offenders who have completed the TSOP in the last three years, or are currently attending the TSOP or plan to do so next year. These patients will be considered against the inclusion and exclusion criteria of the study by Dr. Su Thrift and me. Through further liaisons with TSOP supervisors, patients who meet the inclusion criteria for the study will be identified. In total, we aim to recruit 10 patients to participate in the study.

How will participants be recruited?

We will be asking you, as the named nurse or key worker assigned to a patient's care, to please talk to potential participants and invite them to take part in the study. When doing so, please give them an information sheet, supplemented by a symbolised information sheet, outlining the research. I will give these two documents to you. They will detail the purpose and rationale of the study, the procedure involved, consent and confidentiality. If a patient is unable to read the information sheet or symbolised information sheet, please can you read aloud the information on the sheet? Please also provide patients with the opportunity to ask questions. If anything is unclear in this letter, or if you are not able to answer a patient's questions, then please contact me and I will clarify matters. If a patient agrees to participate in the study, I would be grateful if you could please let me know.

I will then arrange to meet with the patient at least 24 hours after he spoke to you. At this meeting, I will review the information sheet, supplemented by the symbolised information sheet, with the patient and discuss the study again in detail. The patient will also have the opportunity to ask questions about participating in the study. If the patient is willing to take part in the study, written consent will be obtained using a consent form, supplemented by a symbolised consent form. The consent procedure will also involve asking six questions to check the patient's understanding of the study and his capacity to provide informed consent.

Do patients have to take part in the study?

Entry into the study is entirely voluntary. The patient's treatment and care will not be affected by his decision on whether or not to take part in the study. The patient is also free to withdraw from the study at any time. However, if the patient withdraws from the study, the information collected to date cannot be erased, but will not be used in the final analysis.

What will the patients be asked to do if they agree to take part in the study?

The patient will be asked to attend an interview, which will take place in an allocated (private) room within the hospital. The total duration of my contact time with the patient will be one hour and 50 minutes: 30 minutes to obtain the patient's informed consent, a maximum of 60 minutes to conduct the interview and an optional 20 minute de-brief session. The interview will be audio-recorded with the patient's consent.

What are the possible disadvantages of participants taking part in the study?

It is unlikely that participants involved in the study may become distressed when discussing their experiences of being in the TSOP, because the programme does not directly explore their offences but instead examines contributing factors to offending behaviour. However, if

any distress is experienced by participants when discussing their experiences and factors contributing to their offending behaviour, participants will be informed that the interview can be terminated at any time. Furthermore, in order to aid communication, I will place a card with symbols next to the participant during the interview, showing various options for the participant to support his needs (e.g., 'I want to stop' or 'I don't understand the question').

Any distress experienced by participants will be managed appropriately, as I have significant experience of conducting interviews with adults with intellectual disabilities within my clinical work as a psychological therapist. Additional time will be allowed in the 20 minute de-brief session following the interview to allow the participant to discuss any difficult thoughts or feelings raised in relation to the interview and the overall process. Any further support required will also be discussed. If the participants become distressed as a result of participation and require further assistance, then they will be directed to appropriate support (e.g., forensically trained nursing staff in the unit). At the end of the interview, I will pass any relevant information to the nursing team and will make an entry in the patient's care plan, documenting that the patient has been interviewed for a research study and noting any concerns.

What if something goes wrong?

The University of Nottingham, as research sponsor, indemnifies its staff, research participants and research protocols with both public liability insurance and clinical trials insurance. If you have a concern about any aspect of the study, you should speak to me and I will do my best to answer your questions. My contact details are given at the end of this information letter. If a participant wishes to complain formally, he can do this by following the usual secure service complaints procedure, which is to complete a pink form and give it to the nursing staff. If patients wish they can also seek support from the advocacy service available to all patients within the hospital.

Will information about participants be kept confidential?

All study staff and investigators will endeavour to protect the rights of the study's participants to privacy and informed consent, and will adhere to the Data Protection Act (1998). Information about the study in the participant's medical records/hospital notes will be treated confidentially in the same way as all other confidential medical information. Individual participant medical or personal information obtained as a result of this study are considered confidential and disclosure to third parties is prohibited with the exceptions noted below. All data obtained from the interviews will be coded and all identifiable information will be deleted. Any quotes included in the write up will be anonymised and no identifying information will be used. Audio-tapes will be transcribed by one medical secretary who works within the Secure Service. The secretary is bound by the rules of confidentiality within the service.

Although all information provided will be kept confidential, there is some information that, if disclosed, I **MUST** pass on to nursing staff. This includes any information about offences for which the participant has not yet been charged, harm to himself or others, a breach of security, or breaking the rules of the establishment.

What will happen to the results of the research study?

The study will be written up and submitted as part of an academic requirement for completion of the Doctorate in Forensic Psychology at the University of Nottingham. Additionally, the findings of the study will be submitted for publication in a peer reviewed scientific journal. They may also be presented at conferences.

All participants will be informed of their right to access their results when they have been analysed. Each participant will be asked if they would like a summary of the main findings of the study and whether they would like this information presented in written form or in person by me. This will be discussed with participants at the time of the interview.

The main findings of the research will be disseminated to the clinical team at the secure service via a presentation and a summary document if required.

Participants will not be identified in any of the above publications or dissemination activities.

Who is organising the research?

The research is being organised by me in conjunction with clinical supervisor Dr. Su Thrift and the staff at the University of Nottingham. None of the research team will receive any monetary payment in addition to their regular salary for undertaking the research.

Who has reviewed the study?

Ethical approval has been sought from the National Research Ethics Committee through the Integrated Research Application System (IRAS).

Do you require any further information?

You can keep this copy of the information letter. If you have any questions or require any additional information about the study please do not hesitate to contact me or my clinical supervisor Dr. Su Thrift at the work address below. If the participants need to get in contact with either of us they will need to approach nursing staff who will be able to get in contact with me and my clinical supervisor on their behalf at our work address:

Work Address:

Ranjit (Rani) Dhaliwal
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Psychological Services
XXXXXXX Hospital

Work e-mail: ranjit.dhaliwal@xxxxxxxxxx.nhs.net
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Work Telephone Number: xxxx xxx xxxx

Dr. Su Thrift
Lead and Consultant Clinical Psychologist
Psychological Services
XXXXXXXX Hospital

Work Telephone Number: xxxx xxx xxxx
Work E-mail: susan.thrift@xxxxxxx.nhs.uk

Thank you for taking the time to read this and I am very grateful for your support.

Yours sincerely

Ranjit (Rani) Dhaliwal
(Psychological Therapist / Trainee Forensic Psychologist)

Appendix K: Participant information sheet

(Final version 2.0: 05th September 2013)

Title of Study: A qualitative study exploring intellectually disabled offenders' experience of a Thinking Skills Offender Programme, and their perception of its impact on factors contributing to their offending behaviour.

Name of Researcher(s):

Chief Investigator: Dr. Simon Duff (Director, Top-up Doctorate in Forensic Psychology)

Researcher: Ranjit (Rani) Dhaliwal
(Psychological Therapist / Trainee Forensic Psychologist) employed by
xxxxxxxxxxxxxxx

Supervisors: Dr. Su Thrift (Lead and Consultant Clinical Psychologist) & Dr. Kate Whitfield (Lecturer in Forensic Psychology).

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

What is the purpose of the study?

The study aims to explore the experiences of intellectually disabled offenders in the Thinking Skills Offender Programme (TSOP), and their perceptions of the impact of the programme on factors contributing to their offending behaviour. The following research questions will be addressed:

1) What are intellectually disabled offenders' experiences of the TSOP?
2) What skills and benefits do intellectually disabled offenders think they acquire through the process of undertaking the TSOP?
3) What impact do intellectually disabled offenders perceive the TSOP has had on factors contributing to their offending behaviour?
4) What further support do intellectually disabled offenders think they need from the TSOP?

Why have I been invited?

You are being invited to take part because you have completed the Thinking Skills Offender Programme, you have an intellectual disability and you live in a secure unit. We are inviting nine other participants like you to take part.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

What will happen to me if I take part?

Once you have provided written informed consent, you will be asked to attend an interview, which will take place in an allocated (private) room within the hospital. The interview will last a maximum of one hour. All of the interviews in the study will be conducted by the same person (Rani Dhaliwal) and will be audio-recorded with your consent.

You will also be offered an optional 20 minute de-brief session following the interview, where you will be given the opportunity to discuss any difficult thoughts and feelings that may have arisen during the interview.

Expenses and payments

Participants will not be paid to participate in the study.

What are the possible disadvantages and risks of taking part?

It is unlikely that you will become distressed when discussing your experiences of being in the TSOP, because the programme does not directly explore offences but instead examines contributing factors to offending behaviour. However, if any distress is experienced when discussing the TSOP and factors contributing to offending behaviour, you can terminate the interview at any time. Furthermore, in order to aid communication, the interviewer (Rani Dhaliwal) will place a card with symbols next to you during the interview, showing various options for you to choose from (e.g., 'I want to stop' or 'I don't understand the question').

Additional time will be allowed in the 20 minute de-brief session to discuss any difficult thoughts or feelings raised in relation to the interview and the overall process. Any further support required will also be discussed. If you become distressed as a result of participation and require further assistance, then you will be directed to appropriate support (e.g., forensically trained nursing staff in the unit).

What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get from this study may help improve future TSOPs for other patients. The interview may also help you to reflect on your treatment and on your own experiences in order to gain a better understanding of yourself and the impact the programme has had on your offending behaviour.

People with intellectual disabilities do not always get heard. This is your chance to speak up and say what you think.

What happens when the research study stops?

The audio-tapes will be transcribed by one medical secretary (xxxxxx xxxxxx) who works within the secure service at xxxxxxxx Hospital. The secretary is bound by the rules of confidentiality within the service and will store the audio-tapes in a locked filing cabinet in the medical secretary's office, which is in the secure hospital. Only xxxxxxx xxxxxx will have access to the filing cabinet during transcription.

The tapes will then be checked by Rani Dhaliwal, and following transcription they will be stored in a locked filing cabinet in the psychology department, which is located within the secure hospital. Rani Dhaliwal and Dr. Su Thrift will be the only people to have access to the filing cabinet. The anonymised transcripts will be analysed and stored electronically on a password protected computer. Once the data have been analysed, the study will be written up and submitted as part of an academic requirement for completion of the Doctorate in Forensic Psychology at the University of Nottingham. This document will not have your name in it.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. The researchers contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by following the usual secure service complaints procedure, which is to complete a pink form and give it to the nursing staff.

If you wish, you can also seek support from the advocacy service available to all patients within the hospital. To speak to the advocate, you need to ask the nursing staff to use the telephone on your unit. The advocacy service number is available from the flyer kept in your care plan and from the poster that is displayed on the wall in every unit. You can ask to speak to either the Independent Mental Health Advocate (IMHA) or to the Independent Mental Capacity Advocate (IMCA).

Will my taking part in the study be kept confidential?

We will follow ethical and legal practice and all information about you will be handled in confidence.

All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database. Any information about you which leaves the hospital will have your name and address removed (anonymised) and a unique code will be used so that you cannot be recognised from it.

If you join the study, some parts of your medical records and the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

Your personal data (address, telephone number) will be kept for no longer than 12 months after the end of the study so that we are able to contact you about the findings of the study *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All other data (research data) will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

Although all information provided will be kept confidential, there is some information that, if disclosed, Rani Dhaliwal MUST pass on to nursing staff. This includes any information about offences for which you have not yet been charged. Rani Dhaliwal will have read your case file beforehand to be aware of your offence history. Other disclosures that must be reported include harm to yourself or others, a breach of security, or breaking the rules of the establishment. These disclosures will be disclosed to the nursing staff and clinical supervisor in the first instance and thereafter will be dealt with in line with the hospital's standard procedures, which will involve contacting the police and social services if appropriate.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far cannot be erased, but will not be used in the final analysis.

Involvement of the General Practitioner/Family doctor (GP)

GP will not need to be contacted.

What will happen to the results of the research study?

The study will be written up and submitted as part of an academic requirement for completion of the Doctorate in Forensic Psychology at the University of Nottingham. Additionally, the findings of the study will be submitted for publication in a peer reviewed scientific journal. They may also be presented at conferences (e.g., BPS Division of Forensic Psychology conference).

All participants will be informed of their right to access their results when they have been analysed. You will be asked if you would like a summary of the main findings of the study and whether you would like this information presented in written form or in person by Rani Dhaliwal. This will be discussed with you at the time of the interview.

The main findings of the research will be disseminated to the clinical team at the secure service via a presentation and a summary document if required.

You will not be identified in any of the above publications or dissemination activities.

Who is organising the research?

This research is being organised by the University of Nottingham and XXXXXXXX Hospital.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and approved by Solihull Research Ethics Committee.

Further information and contact details

Rani Dhaliwal works at XXXXXXX Hospital.

Work Address:
Psychological Therapist/Trainee Forensic Psychologist
Psychological Services
XXXXXXX Hospital

Work Telephone Number: xxxx xxx xxx

If you want to speak to Rani Dhaliwal about this work you can ask a member of staff to phone her on the above number. You can also contact the Chief Investigator of the study or Rani's clinical supervisor, Dr. Su Thrift, at the address below.

Chief Investigator:
Dr. Simon Duff (Director, Top-up Doctorate in Forensic Psychology)

The University of Nottingham
Yang Fujia Building, Jubilee Campus
Wollaton Road
Nottingham
NG8 1BB
Work telephone number: 0115 823 2213

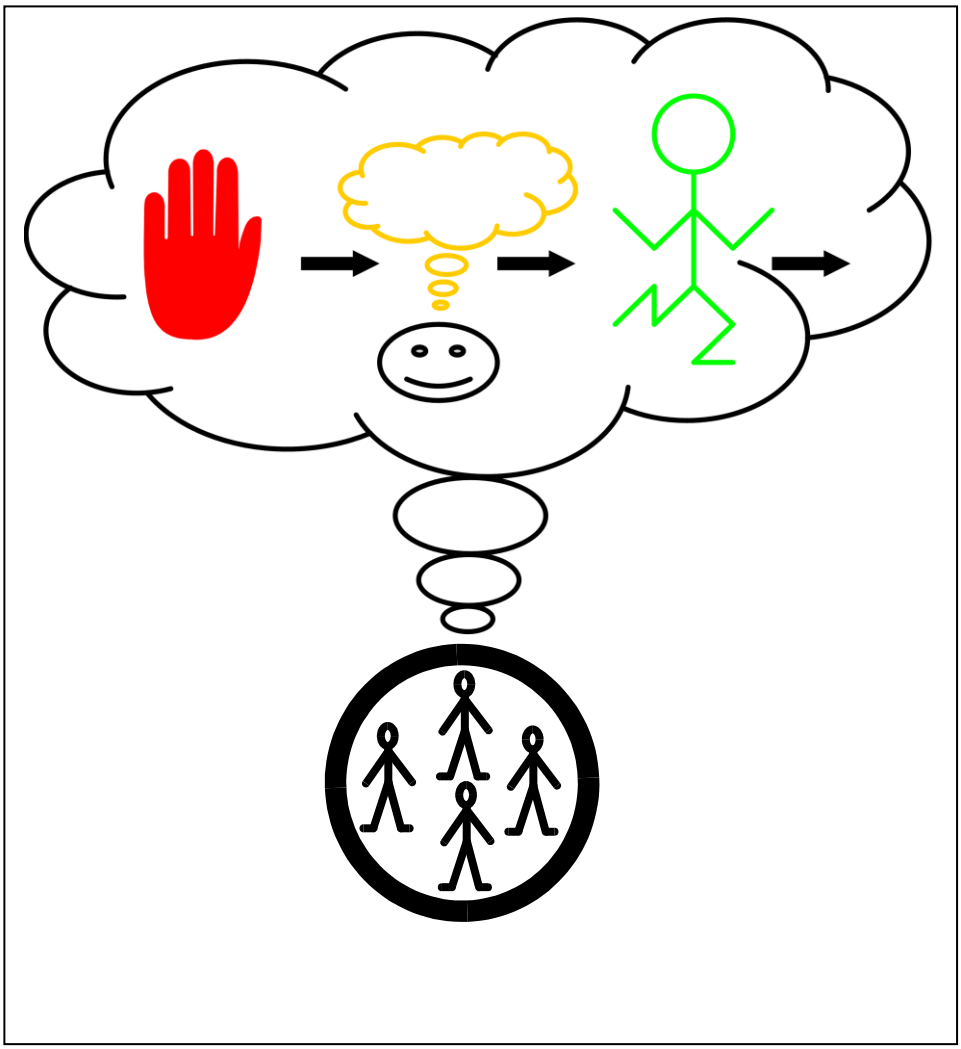
Clinical Supervisor:
Dr. Su Thrift
Lead and Consultant Clinical Psychologist
Psychological Services
XXXXX Hospital
Work Telephone Number: xxxx xxx xxx

Appendix L: Symbolised participant information sheet

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Participant Information Sheet

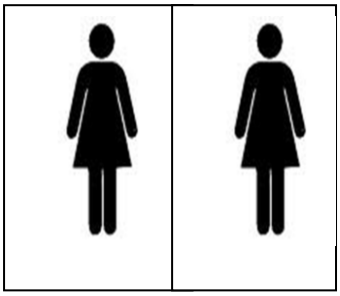
Intellectually Disabled Offenders' Experience of the Thinking Skills Offender Programme.



Information about Researcher and Supervisors

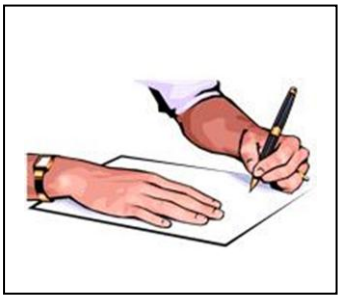


- There is a woman called Ranjit (**Rani**) Dhaliwal.
- Rani studies at the University of Nottingham and works at XXXXXXX Hospital



- The research is supervised by:

- **Dr. Simon Duff and Dr. Kate Whitfield** who work at the University of Nottingham; and
- **Dr. Su Thrift** (Consultant Clinical Psychologist) who works at XXXXXXXXX.

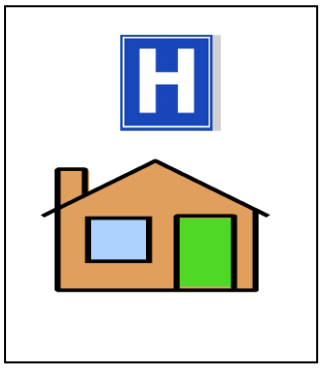


- Rani is doing some research as part of her work.
- She has come to ask for your help.

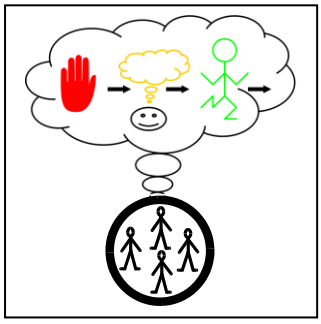
Why has Rani chosen you?



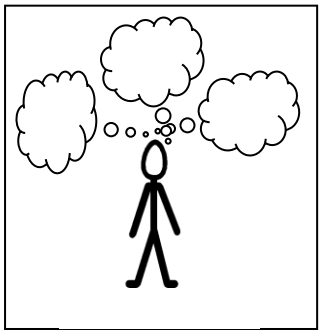
- Rani would like to talk to men with an intellectual disability.



- Who live in a secure hospital.

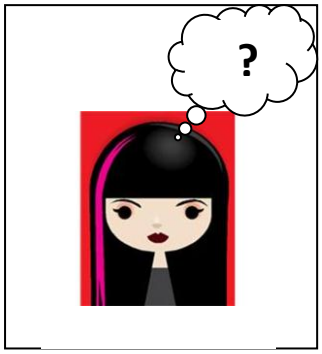


- Who went to the Thinking Skills Offender Programme (TSOP)

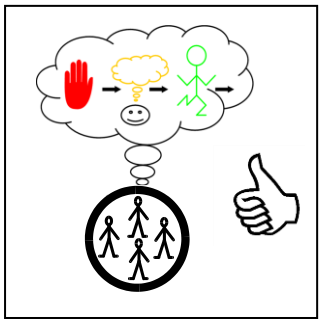


- To know more about what it was like to go to the TSOP.
- What you have gained/ learnt from the TSOP.
- Whether you think your offending behaviour has changed in any way by going to the TSOP.

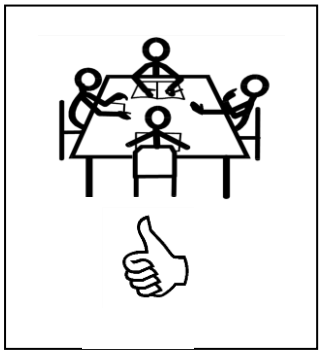
Why is Rani doing this work?



- To understand what it was like for you to go to the TSOP.

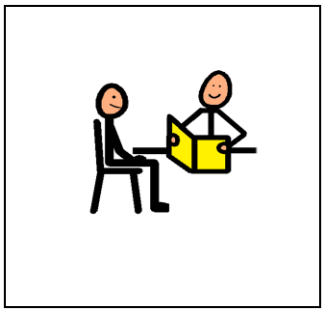


- This is to help make changes to the TSOP to help people like you to stop offending.

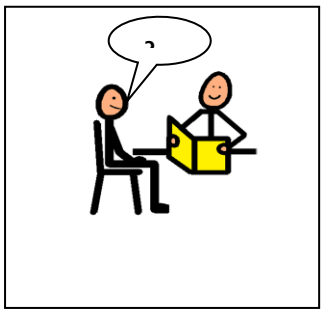


- Rani has approval from Solihull Research Ethics Committee. This means they have said Rani can do this work with you.

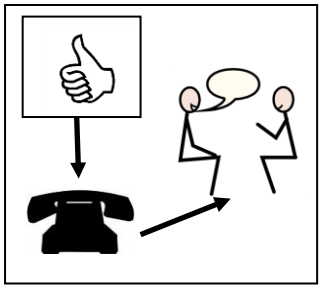
What will happen first?



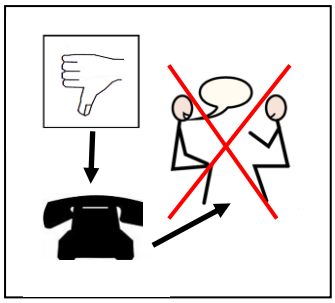
- Staff from your care team will go through the information sheet with you.
  (This is what I am doing now)



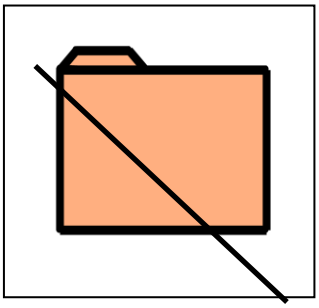
- You can ask the staff any questions about the research.



- If you want to work with Rani, then we will phone Rani and let her know.
- She will then come to see you.

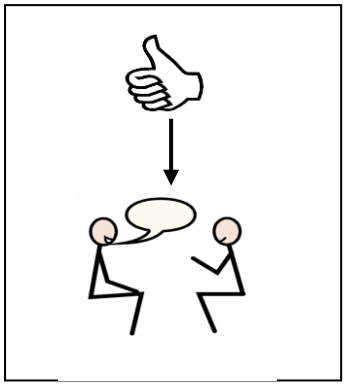


- If you do not want to work with Rani, then we will phone Rani and let her know.
- She will NOT come and see you.



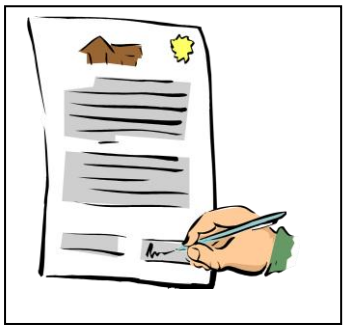
- This will not affect your care plan or treatment.

What will happen next?

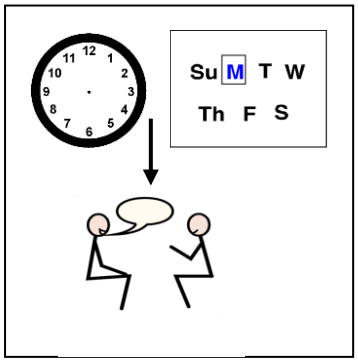


If you say ‘yes’

- Rani will come and meet with you.
- She will go through this information sheet and answer any questions you may have about the research.

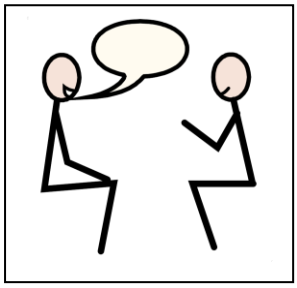


- Rani will ask you to sign a form to say you want to talk to her.

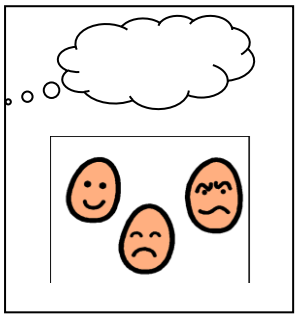


- Rani will arrange a day and time to meet with you in a private room in the hospital.

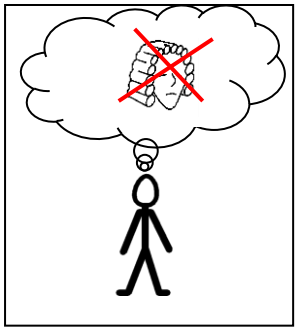
What will I have to do?



- You will meet with Rani just once for 1 hour.
- She will ask you some questions and it is up to you how much you say.
- There are no right or wrong answers.



- She will ask you your thoughts and feelings about the TSOP.



- She will ask you how you think your offending behaviour has changed by doing the TSOP.

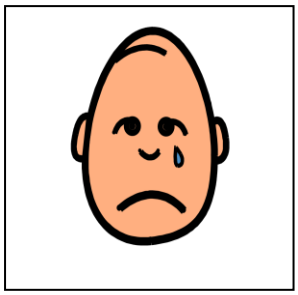


- Rani will record what you say to her on tape.

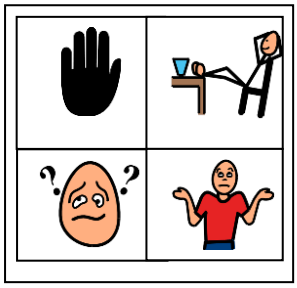


- This will help Rani to remember what you talked about.

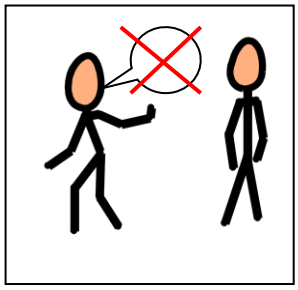
What if I get upset?



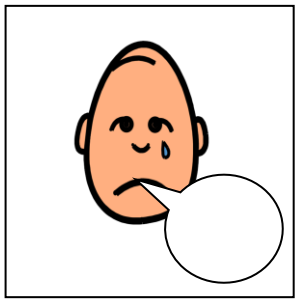
- The questions Rani will ask should not upset you.
- If you do get upset Rani will have a card with some pictures on to help you say how you are feeling.



- You can point to the pictures on the card and tell Rani if you want to:
  - Stop
  - Have a break
  - I don't know
  - I don't understand

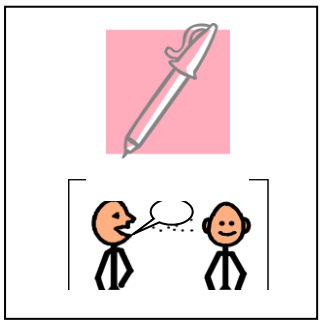


- If you feel upset it is OK to stop talking and to leave the room.
- It is OK to have a break.



- You will have a 20 minute debrief session at the end of the meeting to discuss any worries you may have.
- You could also speak to a member of your nursing team.

What if I am unhappy about the interview?



- You can fill in a pink form on the unit.
- You can talk to Dr. Su Thrift (supervisor).
- You can ask the staff to telephone the advocacy service. The telephone number is in your care plan and on a poster on the wall on your unit.

What will Rani do?



- Once the interview has finished Rani will keep the tape locked in a cupboard.

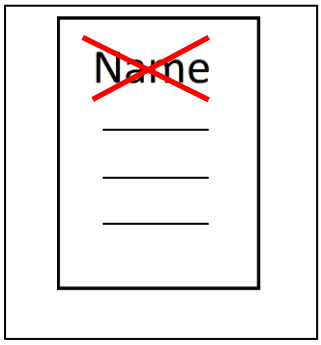


- Rani will get a secretary who works at this hospital to listen to the tape.



- The secretary will type up onto a computer what Rani and you have said.
- The secretary will NOT know your name.

What will Rani do continued?



- Rani will not tell anyone your name.
- No-one will know you have taken part.

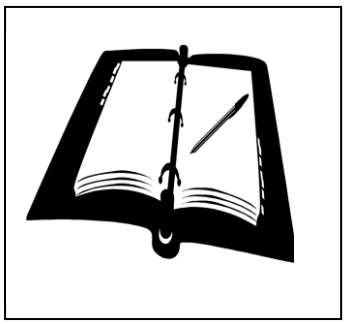


- Rani will also listen to the tape and look at the typed transcripts to check everything is included.

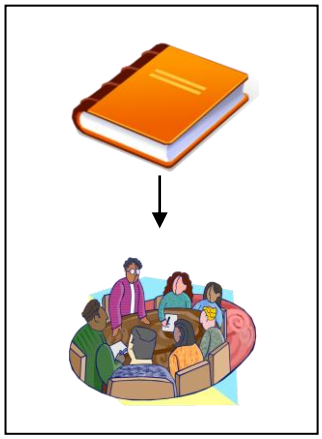


- When Rani has listened to the tape she will store it in a locked cupboard.

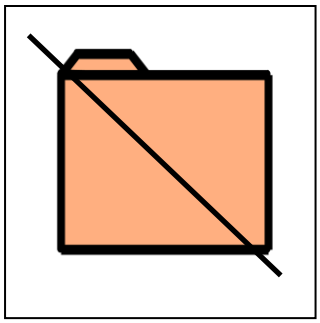
What will happen with the information?



- Rani will write down what she has found out and show the university. This will not have your name on it.
- The University must keep a copy of the work in a locked place for 7 years and then destroy it.



- This information may get published in a book.
- Rani may present the main findings at a conference.
- It will not have your name in it.

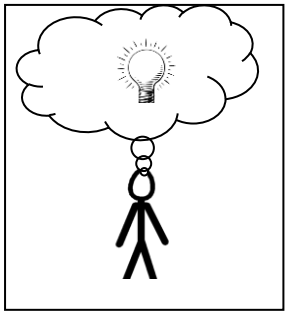


- The information you have given will only be used in this research. It will not change your care plan.



- If you wish, Rani can give you a copy of the main findings or come and speak to you about what she found out.

Benefits to you

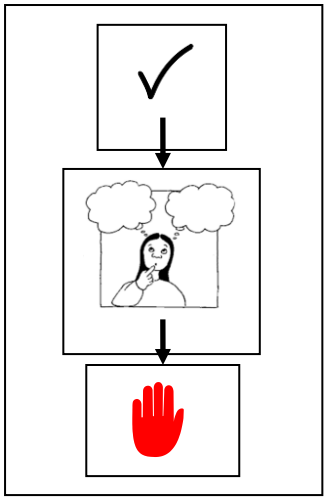


- Think about your experiences and what you have learnt.
- Think about how the TSOP has helped with your offending behaviour.

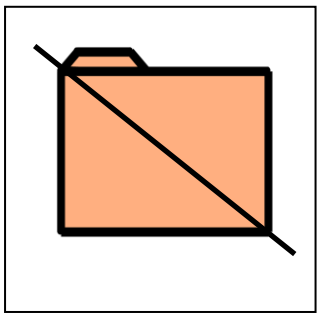


- People with intellectual disabilities do not always get heard. This is your chance to speak up and say what you think.
- You can help improve future TSOP for other patients.

What if I change my mind?



- If I say ‘yes’ I can change my mind at any time, and say ‘NO’ I do not want to talk to Rani.
- If I withdraw then the information collected so far cannot be taken out but this information will **NOT** be used in the research.

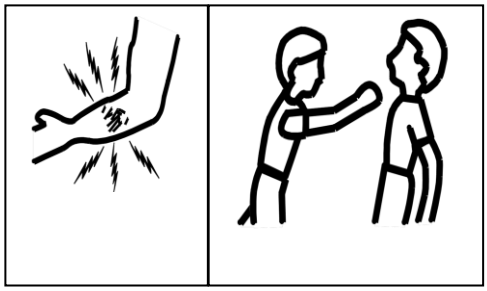


- If I say ‘no’ this will not affect my treatment or care plan.

There is some information that Rani MUST pass on:



- Rani will have read your files before the interview to know what your offence(s) are.
- If you talk about an offence that the police do not know about then Rani must tell the police or social services. This is Rani's duty of care.

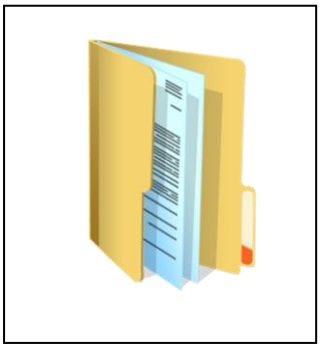


- If you talk about hurting yourself or someone else, then Rani will tell your care team.

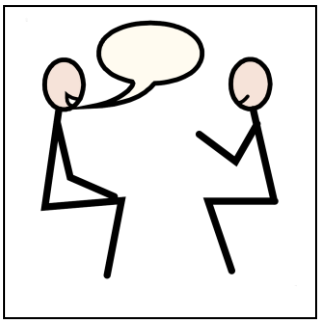


- If you talk about someone else being in danger or there is a breach of security then Rani must tell the police or social services.

Finally...



- You can keep this booklet in case you want to read it again.



- If you want to speak to Rani about this work



- You can ask a member of staff to phone her.



- Do you have any questions about what you have read / what I have read?

Appendix M: Consent form

The University of Nottingham

Coventry and Warwickshire NHS Partnership Trust

(Final version 1.0: 08th July 2013)

Title of Study: A qualitative study exploring intellectually disabled offenders' experience of a Thinking Skills Offender Programme, and their perception of its impact on factors contributing to their offending behaviour.

REC ref: ***(to be added after approval given)***
Name of Researcher:

Chief Investigator: Dr. Simon Duff (Director, Top-up Doctorate in Forensic Psychology)

Researcher: Ranjit (Rani) Dhaliwal (Psychological Therapist / Trainee Forensic Psychologist) employed by xxxxxxxxx xxxxxxxxxxx.

Supervisors: Dr. Su Thrift (Lead and Consultant Clinical Psychologist) & Dr. Kate Whitfield (Lecturer in Forensic Psychology).

Name of Participant: **Please initial box**

1. I confirm that I have read and understand the information sheet version number ……dated..... for the above study and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected. I understand that should I withdraw then the information collected so far cannot be erased, but will not be used in the final analysis. ☐

3. I understand that relevant sections of my medical notes and data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group and regulatory authorities where it is relevant to my taking part in this study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential. ☐

4. I understand that the interview will be recorded and that anonymous direct quotes from the interview may be used in the study reports. ☐

5. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature

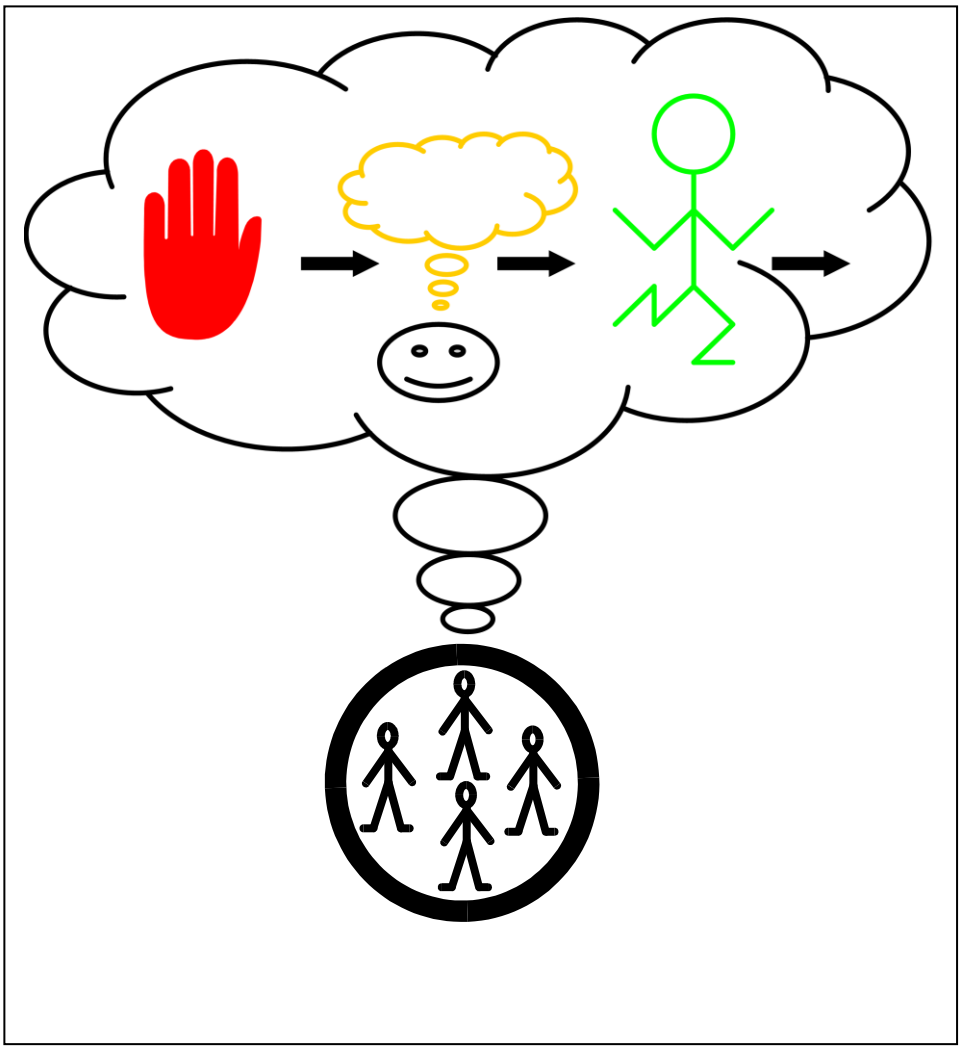
3 copies: 1 for participant, 1 for the project notes and 1 for the medical notes

Appendix N: Symbolised consent form

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

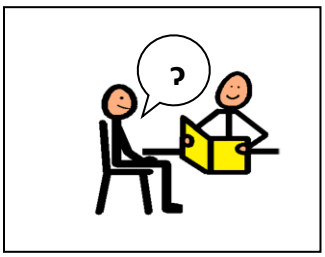
Consent Form

Intellectually Disabled Offenders' Experience of the Thinking Skills Offender Programme.



Name of participant:

Please initial the box if you agree:

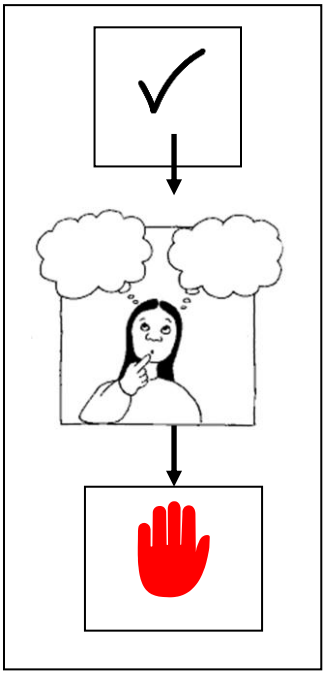


Both Rani and the nursing staff have talked to me about the research.

I have had a chance to ask questions.

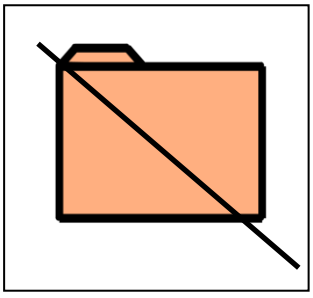


I do not have to agree to take part. I have a choice.



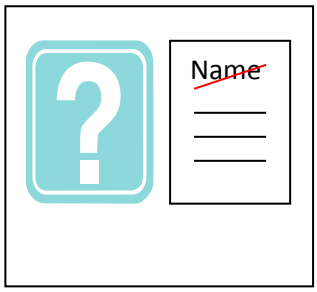
If I say 'YES' I can change my mind at any time, and say 'NO' I do not want to talk to Rani.

If I withdraw then the information collected so far cannot be taken out but this information will **NOT** be used in the research.



If I say 'NO' this will not affect my treatment or care plan.

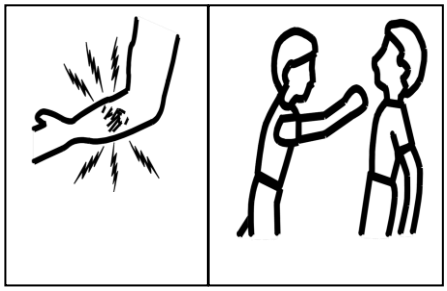
Name of participant:



My interview will be anonymised. This means no one will know it was me in the interview.



If I talk about an offence that the police do not know about then Rani must tell the police or social services. This is Rani's duty of



If I talk about hurting myself or someone else, then Rani will tell my care team.

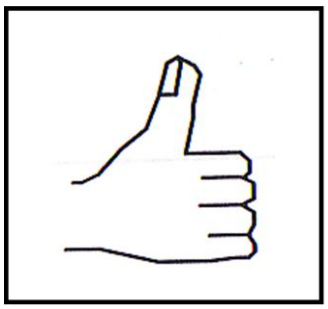


If I talk about someone else being in danger or there is a breach of security then Rani must tell the police or social services.

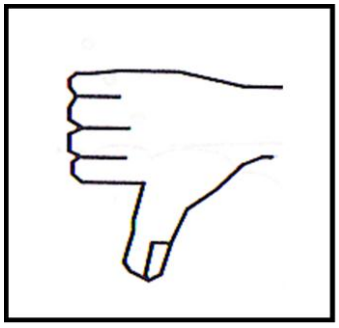


Rani can record the interview on a tape recorder.

Name of participant:



I want to take part in the research. ☐



I do not want to take part in the research. ☐

Please sign your name here:



Name of participant: ……

Participant number: ……

Participant signature: ……

Date: ……



Signed by Rani:

……

Date……

Appendix O: Consent questions

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Questions to gain informed consent by checking the participant's understanding of the study

After going through the participant information sheet for the second time, potential participants will be asked the following questions:

1. Why does Rani want to talk to you?

   Answer: To find out about my experience of the Thinking Skills Offender Programme and what I think about my offending behaviour now.

2. Do you have to take part in this research?

   Answer: No

3. What will happen if you say yes?

   Answer: Rani will come and interview me.

4. What will happen if you say no? What will happen to your treatment?

   Answer: Rani will not interview me and will not write about me in her research. My treatment will not be affected.

5. Can you change your mind if you say yes?

   Answer: Yes, I can change my mind.

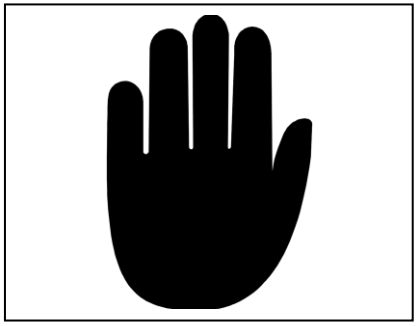
6. Will people who are reading the research know who you are?

   Answer: No. Rani will not use my name in the research.

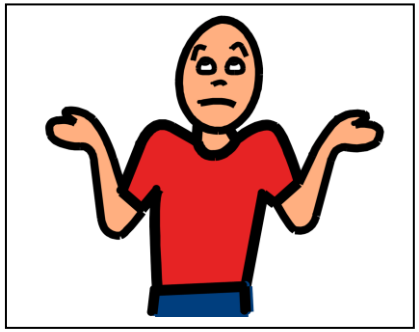
If the above questions are answered correctly, Rani will ask whether participants give their consent to take part in the study. If they answer 'yes', she will present the consent form and gain written consent from the participants.

A convenient time and place will then be arranged for the participants to be interviewed.

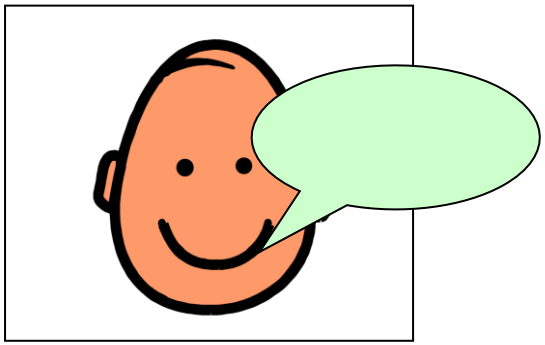
Appendix P: Symbolised card



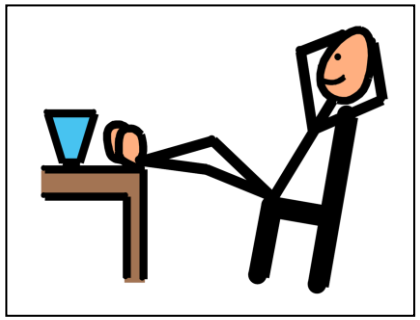
I want to stop



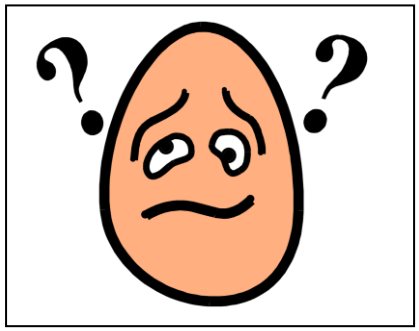
I don't know



I want to ask a question



I need a break



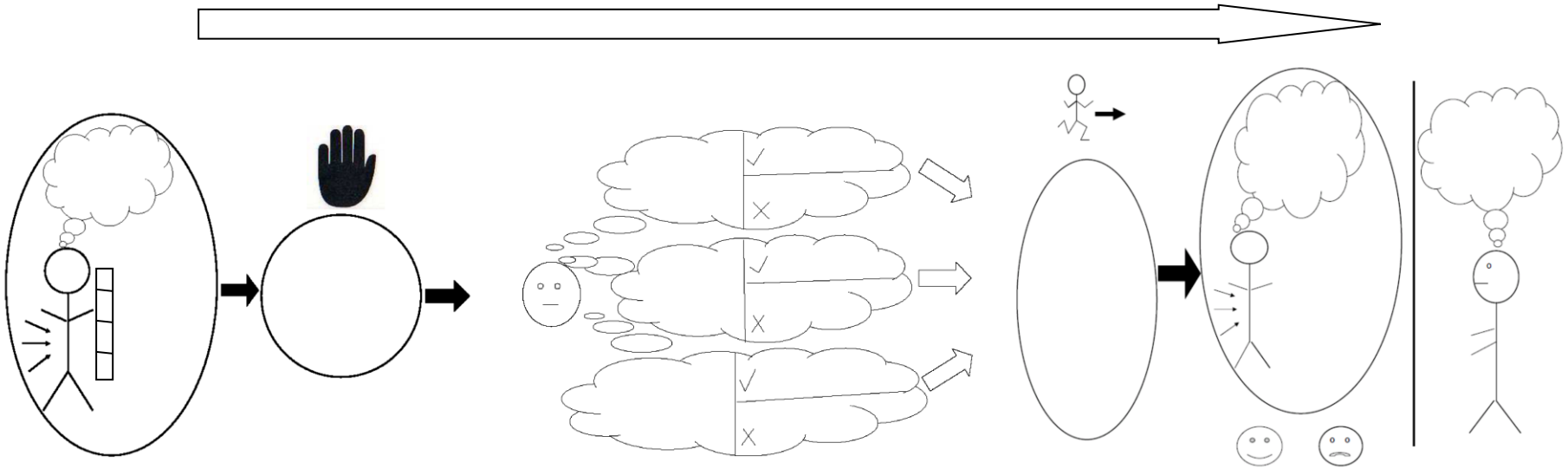
I don't understand







Appendix Q: Blank diary format

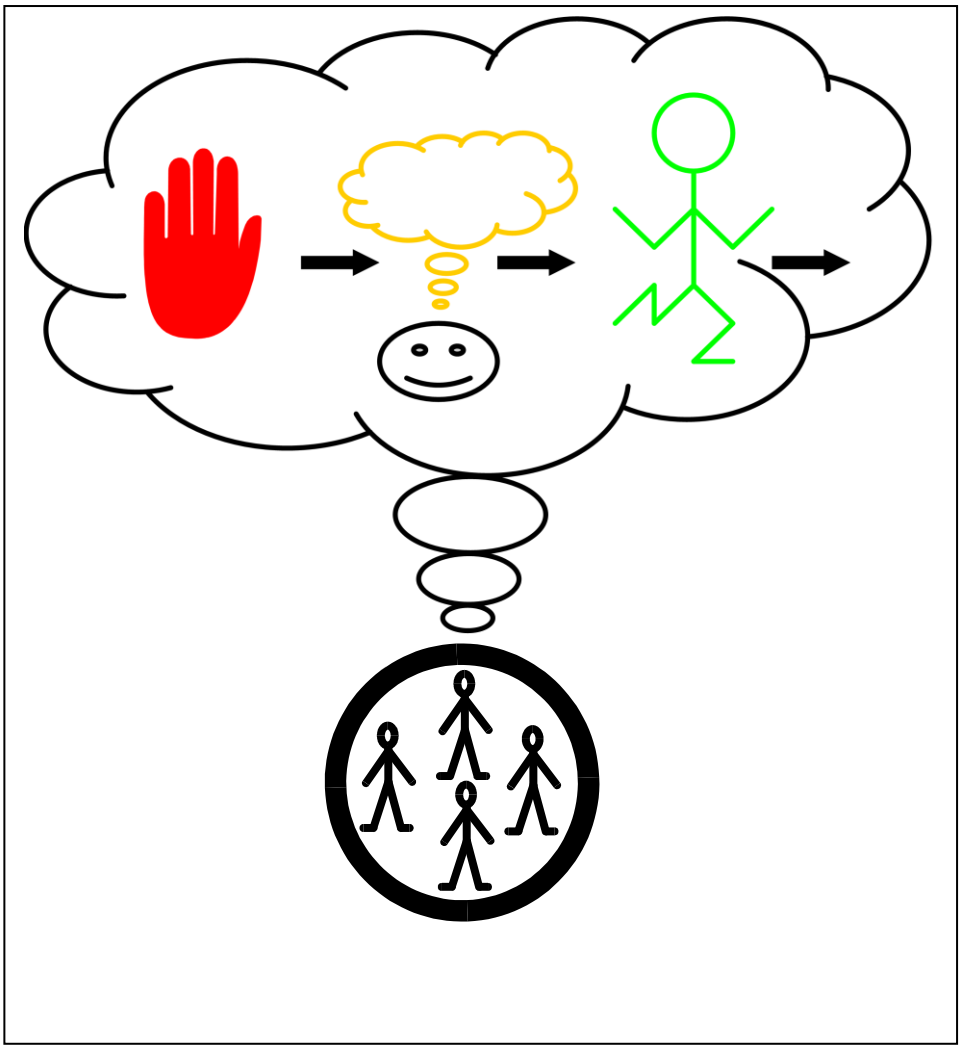


Appendix R: Symbolised de-brief sheet

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Participant De-brief Sheet

Intellectually Disabled Offenders' Experience of the Thinking Skills Offender Programme.

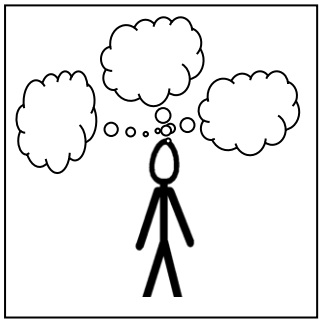




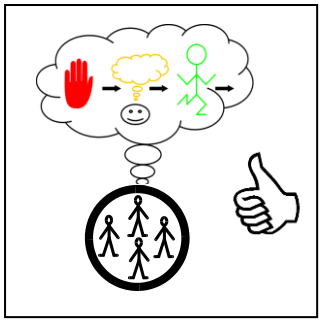
- **THANK YOU** for taking part in the research.



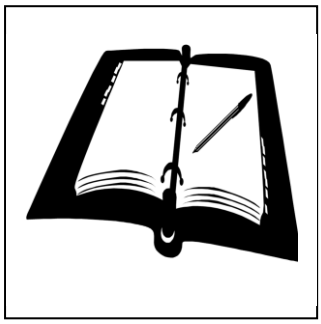
- Your participation was important.
- People with intellectual disabilities do not always get heard. This was your chance to speak up and say what you think.



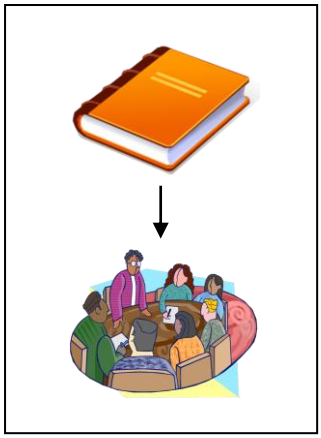
- I wanted to know more about what it was like to go to the group.
- What you have gained/ learnt from the group.
- Whether you think your offending behaviour has changed in any way by going to the group.



- This is to help make any changes to the Thinking Skills Offender Programme to help people like you to stop offending.



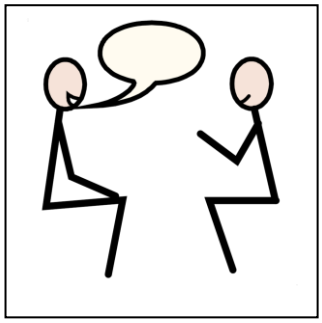
- Rani will write down what she has found out and show the university. This will not have your name on it.



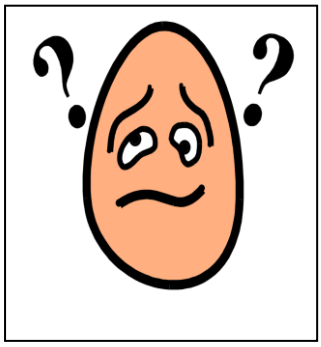
- This information may get published in a book.
- Rani may present the main findings at a conference.
- It will not have your name in it.



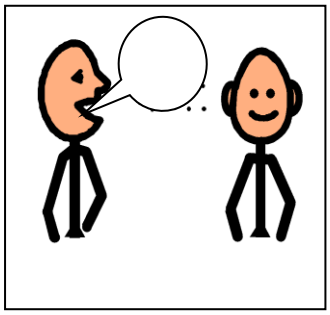
- If you wish, Rani can give you a copy of the main findings or



- Rani can come and speak to you about what she found out.



- If you have any worries after the interview or questions about the research you can either:



- Speak to a member of your nursing team or



- If you want to speak to Rani about this work
- You can ask a member of staff to phone her.



- You can keep this sheet.

Thank you!

Appendix S: An example of a summary table of integrated list of themes (participant 4)

Themes	Participant 4: Quotes	Page & line number
Cluster 1: "It's helped me a lot": Group as a beneficial process		
Sense of achievement and satisfaction	…Do you think em, by going to the group then did you think you achieved those goals. Were you able to use the diary? "Yeah, Yeah." So you feel like you've achieved the goals of coming to group and you, you've learnt more about…? "Yeah." "And I got home leave now to see more the rest of my family now." "I in a way I'm proud of myself I done it, in a way."	1-2, 44-47 4, 172-176 15, 689 29, 1306
Optimism about treatment	… And what kind of em treatment were you hoping to get from (Hospital)? "Eh, to get, get better not offend no more an that…" … Why did you decide to go to the thinking skills group? "Em, to learn to not offend and make, make me feel better and em cope more easier and that doing the thinking skills and that and learn me that e, help me learn to do the diaries and, and write down what I, what I, what happened and that and make em, think about why I done this and why I done that wrong before and that." "When I doing the group and that and that helped me a lot". …So do you feel like you've come a long way then from doing the group? "Yeah, yeah." Do you still feel like you need support with your alcohol? "I'm doing a alcoholic course… But I have to finish this nother group I'm doing… And after that I doing a se, alcohol course… Yeah I wanna do it, I do wanna do it… I have to, if I don't do it I won't get out." You still recognise that there's still some things to do? "Yeah." So what's making you stop then? "The group, the group was, the group and the diaries." …And em so do you feel like the, the actual experience of just going into group was that helpful or unhelpful? "Helpful." "In a way I'm glad it's finished it helped me more." "My Nan, want me to do it, glad in a way I done the group… To make me, better and sort me out getting angry all the time and that." So overall do you feel like the groups helped you with your offending? "Yeah, yeah." "Nothing change about the group. I love that group." Was it, was it a positive or negative experience for you? "Positive."	1, 21-23 1, 30-37 3, 132 14, 635-637 20, 889-917 23, 1028-1030 23, 1041-1045 28, 1264 29, 1328-1332 41, 1874-1877 50, 2262 54, 2446-2448
Positive reinforcement	What kind of made you complete, wanted to do the group and complete the group? "The doctor… Dr [name] want me to do the group…" "…And they (patients) tell me come on [name] don't need to that you don't need to."	4-5, 182-189 18, 788

	What was helpful about the tutors? “They listened to us… And they helped... Us more… And, they understand where we’re coming from and they understand that, when they’re coming from and that all them tutors did and that.” …And what about being in a group with other patients? Did you think that was helpful or unhelpful being in group? “Helpful, helpful… I, I got on we, really well with em…” Did you feel supported by the other guys? “Yeah I did, yeah I did, yeah.” What do you think other people thought about you doing the group? “The, they said they want me to, to, they’re saying [name] I mean they said be good at the, do that group yeah make you more better… You don’t do that group there’s no point in you living here… And the staff saying [name] you done well. You’re not kicking off all the time like you used to be like an the doctors… Proud of me and my family is proud of me.” And what about your Nan? “She, in a way, she glad I done it, she’s, she’s said I’m glad you done it… She saying you’re not like having a go at people, start kicking off and all that he ain’t into, he not like that no more… “Anyone else in your family…? “My sister… She, she saying you getting better what you used to be like… She knows I used to be angry all the time. She knews I was an that she knows I used to kick off all the time and that she say [name] you not to do that brother… You don’t have to do that… You have to sort your life out and get out she said see your nieces and that… So sort your life out… Ah, them, that’s eh, they helped me to change a lot.”	21-22, 954-970 23, 1051-1074 28-30, 1285-1371
Shared experience	“…We (patients) have a laugh together… We do more, em we do work what we all of us do together and that.”	27, 1223-1228
Supporting others and feeling valued	Would you say you were quite supportive in the group? “Yeah I was yeah.”	8, 327-329
To be open and honest		
Strategies to aide understanding and skill development	… What was useful about the diaries? “Em, what, thought what happened… how angry I was and, and em, and how what I done wrong, what I didn’t do wrong and that. And the diaries yeah it help me out really a lot the diaries have….” Which bit of the diary particularly helped you would you say? “That one em, them…” Can you say what you’re pointing to? “That one is ‘bout how angry you are and… And your feelings and your stop…. Its like, when you like, stop offending and that…. And you, and that is tell ya I done it well and what, what I aint dong well.” … which part was the most helpful would you say? “That one, and that one.” Ok so your stopping and your thinking. “ Yeah”. …And what kind of dairies would you bring to the session? Can you give me some examples? “Like we, we, say I draw me angry… And we are, we put how angry are 9 or 10, 10 is really angry… And that, we draw that what was stop was… Walked away… how good it was, how you walked away an that… You put that in there and that draw that and write walked away (pointing to diary in interview)… And the think did you deal with walking away… Put no I did not… And did you, handle it more better, yes I did… And did you argue, bits of it… And did you went to your room, I went to my room… Calmed down and did that help, yes it did… I d’ain’t put nothing else in there,	2-3, 65-105 10-12, 436-534

	that's angry… And walk, walked in there draw me in my bedroom… Sitting down… And think, how good that was, calmed down a lot and all that…" And why was it good to go to your bedroom? "stop me arguing back to that person, make me angry and had to walk away and go to my room to listen… Music, calm me down… Think back… How bad that was that argue." So you're saying you find them (diaries) really helpful? "Yeah." Can you tell me about one session that really sticks out in your mind that you thought was really good, that was really helpful for you? "…emm, when the brainstorms… bout, angry and not angry." Ok what kind, what kinda tells you when you get angry? I start, building up and like the pop bottle shaking up like a volcano… Explodes, when that explodes I'll explode or something like a bomb ticking in my head too." "The diaries helped me a lot, stopped me kicking off and that, and helped me, let me help me to talk to the staff more better." "…reminder cards, look at them… one of em is, move on… my niece… one of em is try not to self-harm… And one of em is get, get more leaves and see my family and that." Yeah what's the one most important thing to you that you think you've learnt from the group? "Diaries." Been helpful for you? "Yeah." So how's the group gonna stop you from re-offending again and hitting people? "The diaries… I do the diary… When I feel that, when I getting angry."	 13, 569-571 13, 573-582 14, 605-612 15, 659-660 15, 665-685 37, 1663-1674 39, 1766-1777
Cluster 2: "I've become a better person": Personal growth		
Increased insight	"Yeah I was ah alcoholic and I head-butt a woman." What were you, what were you like before? "I never get on with new people and I not getting on with the females that well and that." "The groups make me like learn what I used to be like and not be do this do that you have to learn how to do the group properly and expect… What, what hits ya and all that." How often did you self-harm before you started the group? "Every day." Why is it important to be understood? "Em, like a, the don't understand me I get angry." And then what do you do when you don't feel understood? "I start swearing, kicking off… Kicking the table, chuck the table, chair or something like that, not at em, not at em." "…I don't trust people that been all through my life…" And then when they don't wanna know how does that make you feel? "Sort of bad in a way like, I feel sad like kicking off and that." What was the old Participant No.4 like when you were out in the community with the women? "Nasty… Swearing at em, hitting em… Chuck beer at em an that…. I, and now I wasn't nice, wasn't nice." Shaking your leg that's a big sign? So, so when you do that, what might you, what might you do then? "What I do is offend… I hit somebody." "Didn't care. Don't wanna know… What you, what the staff saying an that." And what did you think about hitting	1, 15 3, 116-119 5, 202-207 16, 695-697 22, 980-999 24, 1086-1087 32, 1451-1453 33-34, 1509-1524 39-40, 1792-1802 44, 1987-2013

	that other person? “I’m glad I done it…. At that, that time, not now, not now.”	
Development of problem solving ability	…If you’re not self-harming every day, then what other things have you learnt to do? “Listen to music… talk about in group what I, feel like when I’m, when I self-harm talk about in group… And they tell me come on [name] don’t need to that you don’t need to.” “… Assaulted… the patient’s mother…” And have you ever got to that level of anger since you’ve been here? “No.” What do you thinks stopping you? “My two nieces… Yeah my family is… they want me out… They don’t want me to stay here and they want me outside looking after them more.” What would, what would you be doing… Different now? “Emm, the, the people start arguing with me I just walk away, just walk away… That will stop me think” And, and what, what kind of things do you think to yourself? “Em, (short pause) community you know shopping… Yeah, yes I start doing angry and kicking off and that, and they won’t let me out.” What things can you potentially lose? “All of it. I can lose my home leave… I can lose all, shopping an that… I can lose ground leave and all that and I don’t want to. I don’t wanna lose none of that…” Yeah and if you’re out in the community and you re-offend what, what do you think you’re gonna lose? “Come back in here.” And how would you feel about that? “Not good, not happy…”	17-18, 771-788 18-19, 822-857 37-38, 1694-1710 40-41, 1827-1860
Improved emotion recognition and regulation	You said you’re now managing your feelings? “I am yeah.” …And you said at that beginning you found that (diaries) helpful? “Yeah, yeah and I still do em sometimes when I’m angry sometimes.” “…How angry you are em, put it down eh, 1 out of 10 an that, how angry and how angry you’re not… I stuck with that, that was helped me a lot that did.” So actually being aware of your level of anger? “Yeah.” And can you recognise now when you get angry? “Yeah I do, yeah…” Ok what kind, what kinda tells you when you get angry? I start, building up and like the pop bottle shaking up like a volcano… Explodes, when that explodes I’ll explode or something like a bomb ticking in my head too... When that ticks… I let go an, an when I go I don’t like it I don’t like it, I do not like it…” And that’s what you were like when you were outside… when you offended? “Yeah”. So when you do get to that level, what, what stops you from getting to that level of anger now, what has the group helped you to do so you don’t get that angry again? “Learn about the diaries.” “And, eh, how moody I am in the mornings and that… Or in the afternoons and that and when I can’t sleep… When I can’t sleep I get moody and that.” And tell me a little bit more about when you recognise when you’re getting angry? “Well I can tell when I’m getting angry I do this…” Ok, so you’re shaking your leg. “Just, just that the shaking my leg.”	3, 112-114 13, 555-557 13-14, 586-628 15, 651-655 18, 812-819 39, 1779-1790
Increase in victim empathy	“…Chuck beer at em an that... I, and now I wasn’t nice, wasn’t nice… No. I feel bad to myself what I done.” Who do you feel bad for? “That person and myself…” And what, why do you feel bad for that other person? “That wouldn’t trust me no more.”	34, 1520-1528 44, 2019-2021 45, 2030-2032

Feeling regret/ remorse	What do you think now about it? "I feel bad."	44, 2015-2017
Understand the importance of implementing skills in the future	"And the diary, em when we finished thinking skills yeah, I still do the diaries…" …And, and how often did you do your diaries? "All the time." "Yeah I still, I still do my diaries when I'm out there still, still do my, live outside I'll still do em." How do you think you're gonna use those skills outside? "I'll use em." So you don't re-offend? "I would use em."	2, 55 12, 547-549 13, 566-567 37, 1686-1692
Increase in confidence	"I got a lot of confidence in myself… Why that is? The group helped me a lot… A really lot… Helped me a really, a lot. Were you confident before you came here? "No."	43-44, 1963-1982
Self-reflection	"I d'ain't do that I wouldn't have be here… Or not been in these kind of places." "Ah, in a way glad I'm a sort my life out a bit."	45, 2024-2028 45, 2067
Future goals/ Motivators	"They (family) don't want me to stay here and they want me outside looking after them more… I'm alright with it, I, I do wanna get out, I still wanna get out, I don't wanna be living here no more, I just wanna get out."	19, 856-862
Cluster 3: "I'm a changed person": Transforming self		
Behavioural change	"…And they're not like I play up and offend that much what I used to be like and, I changed a lot." "And it's hard for me not to self-harm. I look after myself cos I'm a self-harmer." How often did you self-harm before you started the group? "Every day… And I still do it now sometimes." Is the same level of harm that you do to yourself or… Is it less from when you came in to this placement? "Less… some days I self-harm depends how bad I am… I not that bad I don't do it… When I feel low." When you're not feeling low then how? "Don't do it." … You're saying don't self-harm every day? "No." "… Assaulted… the patient's mother…" And have you ever got to that level of anger since you've been here? "No". "I won't be a, like drink that much what I used to be like an, I start drinking juices and all that when I'm out." And you're saying, you know you're not being as aggressive on the unit? "No." "And the staff saying [name] you done well. You're not kicking off all the time like you used to be." "She (Nan) saying you're not like having a go at people, start kicking off and all that he ain't into, he not like that no more." And you said she'd noticed that you're not shouting at other people? "Yeah, yeah." "My sister… She, she saying you getting better what you used to be like… She knows I used to be angry all the time. She knew I was an that she knows I used to kick off all the time and that she say [name] you not to do that brother." "Not kick, not having a go at em and hit em and that, I ain't into that no more."	2, 56-57 15, 681 16-17, 695-761 18-19, 822-832 19, 870-871 28, 1273-1275 29, 1297-1298 29, 1323-1336 30, 1340-1350 33, 1507

	"I know it, eh learn about not to hit em." … Did you used to get restrained…? "Not here". Not here ok. In your previous placement? "Yeah." But since you've been here you haven't? "No." What would, what would you be doing… Different now? "Emm, the, the people start arguing with me I just walk away, just walk away…" Shaking your leg that's a big sign? So, so when you do that, what might you, what might you do then? "What I do is offend… I hit somebody." What would you do now, shake, if you start noticing that your shaking your leg? "Em, I just walk away, just walk away and talked about my dad or my Nan… Talk to the staff." …Can you describe what that offence was and what you did? "Yeah. Em head butt er this patient's mother… I was too much drink, mess with my head and I wasn't thinking straight." How were you feeling? "Angry." … And you assaulted the patient's mother? "Yeah. "If that situation was to reoccur what would you have done different…next time? "Turn the clock back not to do it not to drink… Not to drink just walk away." And what might you be thinking to yourself? "Saying don't do that, don't do that… In case I get, one I get in trouble with the police… And two, it's not worth it getting in trouble with the police from doing it." And what if, what's gonna stop you from not drinking when you get out there? "Em, I promised one of my sisters not to drink and I'm not breaking that promise."	36, 1624 36, 1634-1653 37-38, 1694-1704 39-40, 1792-1819 41-42, 1884-1927 43, 1942-1946
Change in feelings	So how often do you get angry on the unit now? "I don't get angry that much I just do little blips and that's it." "My, better with my anger." How does it make you feel better, how do you feel when you're not kicking off? "Feel good, feel great." "And I feel good in a way not to swear at em no more…"	18, 806-808 28, 1268 32, 1430-1433 33, 1481
Feeling connected and improved relationships	"I never get on with new people and I not getting on with the females that well and that… Now I'll go ready to, now I've got used to the females and new people coming on the unit…." And is that do you think because, cause of doing the group or? "Yeah… When I doing the group and that and that helped me a lot…" … how did the group help you then to communicate better with females and other people? "me talking to the group members… and the staff on the group… And they tell me say alright then [name] you have to do this nicely. You have to approach them with respect, they, you give em respect they give you respect back the females and that…" Do you feel that you're been more respectful to the females? "Yeah, yeah I have…" Do you feel respected by them? "Yeah I do yeah." How do you think your relationships changed with the staff team, or other people? "A lot." In what way? "Em, I know like have a go at em that much, don't hit em, I don't attack em like I used to do and that." How has the group helped you to trust people then? "We had a woman in our group… And, and I didn't know her that well and that… And I got to know her, I trust her… And when I got used to trusting that female… And that day I said oh, I trust that woman, I have to trust all of em… Even though I trust them myself… I trust them people, these women yeah… Like and I been like this all through my life, I don't want that. I wanna get a girlfriend… To get used to trust then she trust me." So do you think it was helpful then to have a female in the group? "Yeah." Do you think you still would be able to trust women if there were just men in the group? "No… Like in this group, like in this group I'm doing now… Like in a way I'm glad a got a female in there… To trust." And was it easier to get	3-4, 118-169 22-23, 1005-1013 25-26, 1112-1192

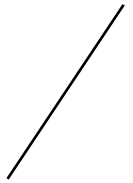
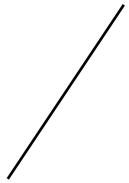
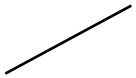
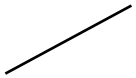
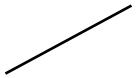
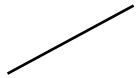
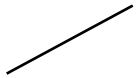
	along with that female in the group? “Yeah.” …Did you feel you made any friendships within the group then? “In a way yeah.” …And how do you think you relate more to your family…? “I go see em, I go and see them all the time get better with the doctors now… I get better with the staff now… I got better with my family more…” What about with the females? “Getting better… Getting really better now with the females.” Are you feeling more comfortable around them? “Yeah I do yeah, I do.” “Have to talk to people more easier… And that and I kicks off the all, they all don’t wanna know.” Ok. So when you’ve, when you’re not kicking off you can talk to people? “Yeah.” But when you do kick off they don’t wanna know? “No.” What have you learnt about yourself? “Not kick off… I can respect the women more easier not to kicks off an that. Stop me have, swearing at em and that… And I feel good in a way not to swear at em no more. I got used to talking to em, trusting em more… They used to, they trust me more now. They feel me better when they trust me more” How can you, use those skills with women in the community? “I speak to em nice, respect em… Not kick, not having a go at em and hit em and that, I ain’t into that no more.” So when you go out in the community now em, how do you think you’re gonna behave towards the females or males? “Em, a, a trust, eh, like me they’d said hello and all that I say hello back to em… I thought trust em, I will talk to em more… Better… And then give them respect better… And look after them more… I just wanna look after them like my own, like my own sisters.” What do you think you’ve learnt about other people now? “A lot… em, learn about to respect them… And, talk to em, to get used to the talking to em and that.” Do you think you’ve changed as a person from doing the group? “I have, I have… I respect em more, the staff and that… And the doctors and that… I trust more women now I used to be like.”	27-28, 1239-1242 30-31, 1373-1405 32, 1437-1449 32-33, 1461-1487 33, 1500-1507 34-35, 1534-1586 35, 1593-1607 38-39, 1729-1754
Attitudinal change	“… Yeah likes’ no point me living here and not doing the group what they want me to do and that… And I won’t get no leave and that and I don’t do the groups and that.” “All of us got used to the way put our heads down and do the work what the tell us to do an that.” “Stop doing stupid things what I used to do.” “I just wanna get out, I just wanna get out to, to get my own life sorted and get better and all that and I, I’m not into offending no more”. “I don’t really wanna kicks off, kick off no more an that.” “I hit them they get me on the floor and that I ain’t into that lot, I’m not into that.” “I don’t wanna know. I don’t wanna offend no more, I don’t wanna come back in these places again…”	5, 193-198 7, 310-311 19, 866 23, 1017-1018 32, 1457 36, 1628 38, 1704-1706
Shift in beliefs	Did you feel you could trust them (patients)? “Yeah, I have to. I have, I have to trust people I don’t trust people that been all through my life not to trust people in my life. I have to by now. I have to use, I have to trust em now everything in my life. I don’t trust them people in my life… I be like this all the time, angry and kicking off and that, and I, I don’t want that.”	24, 1084-1093

	"Don't have to kick off all the time now, I got better from not kicking off." "So oh I hit that person I come back in here, I said I don't want to I just walk away, I just walk away." "And two, it's not worth it getting in trouble with the police from doing it." How do you think your thinking is now? "All clearly now." What do you think about your offending and what you did in the past? "I hate myself." Do you still hate yourself now? "Not now, in a way yes in a way no…" Which bit do you hate? "What I done wrong, what I done wrong… In my life."	32, 1428 38, 1714-1715 42, 1927 43, 1933-1940 45, 2049-2051 46, 2076-2086
Cluster 4: "I didn't really wanna do it": Facing Adversity		
Difficult thoughts and feelings experienced	…So was that the first group you've ever done? "Yeah." And what was it like just being in a group with other people? "Nervous, nervous… I aint got, I d'aint know the people…" I missed, I went eh, missed one (session) when I was a bit upset an that… And I mo, say to one of those group members… I said I can't do it I have to, I have to, go to the unit to, to under, make me calm down and that… And next day I went back… Yeah, yeah. Got easier." …Was there any sessions that you found difficult…? "…talk about my past… No I d'ain't talk about it."	6, 235-246 7, 279-302 21, 927-939
Fear of being judged		
Specific teaching strategies	…How did you find the role plays? "I, me, I ain't, I don't like role plays that much, wo, I, I not used to the role plays that much I don't really like role plays… I just like sitting down and doing the paperwork and that… I'm into that, all that kind of stuff… Doing role play after role play, after role play I ain't into that…" …Did you still take part or did you? "I still, still at part of it and that."	8, 336-359
Length of the programme		
Applicability of concepts in the future	"I've smoked drugs… When I talk about this yeah, drugs yeah, one thing that make me calm down, the drugs… Make me think more clearly… Away from that, away from the people, away from the anger and that. I know I smoke that… Cannabis… When I smoke it I feel… Good in myself… I can chill and talk to em nicely… And, and make me sleep better… Em, I'm glad in a way I smoked it… I really wanna smoke it still… Duh, I don't smoke it what I used to be like every day… But I smoke it what a spliff a day… And, every day I used to smoke it at day, at night , at day, at night… Now I smokes say I was now I was living out there, I'd have smoke it once the night." Did it, did you feel it contributed to your offending. Did it add to you…? "No." And you're saying that's something that you may still want to do? "Yeah."	46-49, 2104-2220
Patients from same units	I knew one person… And he was on our unit that, that person was…" Did that make it easier or more difficult because this? "It difficult."	6, 250-262

Sense of loss	So how do you feel since you've completed the thinking skills group? "…in a way I didn't glad it wasn't finished I wanted to do it more…" Ah so were, were you feeling sad that it was finished. You were wanting it carry on? "Yeah, yeah." Ok what did you miss about the group? "The group members… The, the group staff, then having a laugh and all that. We have a laugh together… We do more, em we do work what we all of us do together and that… I miss all that."	27, 1202-1232
Cluster 5: They could learn from us": Share experience		
Improve teaching strategies	"Make the group better is duh, the diaries were better, clearly understand it more better… Em, like, this part here…" So the first circle… "That's small… The met, em need it bit more bigger to draw that thing what you, you like you had to draw yourself in there… And, this part here too make it bit bigger… The circle… To put things what you stop in there and that… And, this too, make it bigger… And that, make it more better and make em understand it more clearly for em and that." Ok so more room on the diaries… "Yeah." group like, eh, the comm sheet understanding and that. Peop, like me I couldn't understand the comm sheet that well… The staff can't understand it some staff…. And some staff can, like me sometimes I can't understand what they're saying… On the di, on the comm sheet… And I have to say it again, um, have to go to group and that, hav, explain em again." So kinda making the communication sheets more clearer? "Yeah." "Brain storms more clearer… don't make the staff speak more faster, make em speak slower… Yeah, they can understand it more better then."	50-51, 2275-2318 51-52, 2335-2374 52-53, 2382-2397
Advice to future group attendees	"Respect the tutors and the sp, the, all the patients in the group… They'll respect you, they'll respect you back… And you, you, like the say you couldn't understand what they're saying to them… Put your hand up and say can you explain it more clearer, more slower an all that to em and that, then they clock on what they're saying an that."	53, 2414-2428

Appendix T: Final superordinate and subordinate themes

Themes	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7	Participant 8	Participant 9	Participant 10
Superordinate Theme 1: "It's helped me a lot": Group as a beneficial process										
Sense of achievement and satisfaction	15, 679-680 2, 59-62 13, 575 13, 563-566	2, 51-55 14, 629-638 15, 660-668 21, 958-965	14, 612-623	1-2, 44-47 4, 172-176 15, 689 29, 1306	1, 37-45 7, 304-312 7, 316 23, 1027-1033 31, 1398-1401	2, 47-51 21, 952-953 21, 956-959	2, 47-49 22, 987-998	3-4, 130-141 15, 649-655 16, 695-717	3, 132-137 30, 1354	5, 200-204 9, 398-405 25-26, 1132-1164 36, 1603-1607 36, 1618-1622
Optimism and hope	2, 90 9, 410-411 33, 1463-1466 34, 1541 2, 77-79 26, 1156-1166	1, 18-21 9, 413 33, 1504-1508 34, 1547	25, 1131-1134 26, 1150-1152	1, 21-23 1, 30-37 3, 132 14, 635-637 20, 889-917 23, 1028-1030 23, 1041-1045 28, 1264 29, 1328-1332 41, 1874-1877 50, 2262 54, 2446-2448	1, 17-24 6, 230-231 7, 280-285 14, 606-607 36, 1648 37, 1654-1662	1, 21-23 1, 33-40 3, 100-105 39, 1747-1749	1, 13-23 4-5, 179-187 10, 417- 422 15, 642-643 18, 784-799 19, 836-863 29, 1307-1310 33, 1481-1488 34, 1518-1521 36, 1641-1644 42, 1897-1904 43, 1963	1, 7-12 2-3, 79-93 7-8, 320-324 17, 764 31,1399-1410 33, 1507-1510 34, 1551-1559 36, 1615-1645 49-50, 2217-2298	1, 29-44 2, 59-70 6, 263 25, 1117-1130 63, 2882 68, 3080-3084 68, 3097	1, 11-20 3, 96-105 3-4, 133-163 4-5, 165-198 5, 203-216 10, 426-429 16-17, 721-731 19-20, 824-866 22, 964-991 23, 1028-1033 31-32, 1389-1452 50, 2260-2264 51, 2298-2300
Positive reinforcement	12, 519-532 8, 363-371 11, 492-502	6, 231-241 6, 260-273	9, 398-407 10, 431-434 11, 460-461	4-5, 182-189 18, 788 21-22, 954-	7-8 319-355 17-18, 756-794	4, 151-159 6, 254-269 18, 779-795	2, 69-71 15, 648-669 21, 936-949	7, 315-316 18-19, 823-846	4, 163-170 5, 186-208 22-23, 1006-	6, 239-262 21, 919-949 24-25, 1090-

		10, 419-442 14, 607-611 14, 621-634 21, 952-956 24-25, 1091-1108 32, 1434-1438	11, 490-493 12, 522-527 12-13, 541-547 13, 552 14, 595-597	970 23, 1051-1074 28-30, 1285-1371	20, 878-901	21, 923-947 24-25, 1093-1109		22-23, 967-1048 59, 2681-2685	1043 25, 1107-1108 29, 1289-1291 29, 1325 30, 1338-1346	1104 38, 1708-1713 46-47, 2064-2116
Shared experience	3, 108-110 3, 130-136	13, 566-590 8, 327-340		27, 1223-1228	10, 427-441 18-19, 807-835	19, 836	17-18, 773-780 20, 885-892	8, 326-365 9, 383-394 9-10, 411-424 19-20, 870-915 38-39, 1712-1760 39-40, 1785-1810 40, 1820-1822	8, 356-365 20, 893-903 26, 1147-1162 26-27, 1178-1215 61, 2792-2796	
Supporting others and feeling valued	8, 338-339 8, 350-357	14, 598-599	12, 509	8, 327-329	19, 830-856	18, 799-800		24, 1076-1086 38 & 39, 1721 & 1747-1752 40-41, 1827-1845	4, 179-183	
To be open and honest	10, 451-454							21, 926-940		25, 1127-1128
Strategies to aide understanding and skill development	6-7, 251-279	4, 139-177 4-5, 179-212 9, 390-403 34, 1523-1535	5, 188-203 15-16, 658-687	2-3, 65-105 10-12, 436-534 13, 569-571 13, 573-582 14, 605-612 15, 659-660	18, 793-794 25, 1112-1117 26,1152 32-33, 1452-1470 40, 1810-	7, 279-293 12-13, 530-584 16, 715-727 26-27, 1183-1216	2, 51-58 2, 67 5, 203-207 13-14, 553-616 18-19, 790-834	9, 396-398 10-14, 450-597 15, 676-687	9, 367-395 12-13, 506-576 15, 664-677 17-19, 738-823 20, 876-879	6-7, 266-289 11, 454-455 11, 465-466 11-12, 494-500 12, 504-509 12-13, 537-

				15, 665-685 37, 1663-1674 39, 1766-1777	1818 40, 1823-1827	38, 1728-1733				553
Superordinate Theme 2: "I've become a better person": Personal growth										
Increased insight	1, 10-28 1, 30-44 2, 49; 57 5, 188 5, 195-196 14, 634-636 16, 695-701 18-19, 815-825 19, 831-833 19, 850-851 15, 667-671 15, 673-675 22, 964-965 22, 977-1003 28, 1258-1266	1, 12-17 16-17, 727-746 17, 757-765 17-18, 775-798 19, 865-868 20, 898-918 23, 1016-1036 29, 1298-1306 30, 1344-1352	1, 5-46 16, 710-717 21, 944-951 22, 982-998 24, 1070-1081	1, 15 3, 116-119 5, 202-207 16, 695-697 22, 980-999 24, 1086-1087 32, 1451-1453 33-34, 1509-1524 39-40, 1792-1802 44, 1987-2013	1, 4-7 5, 217-226 28, 1276-1312 32, 1429-1448 33, 1491-1492 34, 1548-1558 35-36, 1599-1614	2, 66-79 33-34, 1514-1551	1, 4-7 1, 26-37 2, 77-84 3, 134-136 4, 160-175 5, 214-222 9-10, 388-413 25, 1102-1105 25, 1146 30, 1331-1334 31, 1383-1390 32, 1441-1453 36, 1604-1619 36-37, 1646-1670 40, 1796-1800	1-2, 16-57 3, 99-128 4, 163-178 21, 942-956 27, 1197-1237 28-29, 1271-1287 32-33, 1468-1488 35, 1581-1606 45, 2032-2068 46-47, 2097-2121 30-31, 1369-1381	1, 6-10 2, 46-53 2-3, 88-96 32, 1447-1449 36, 1629-1631 51, 2322-2325 52, 2352-2367	1, 6-7 1, 22-35 1, 44-45 9, 379-380 11, 483-490 13, 562-572 15, 669-678 19, 820-825 20, 875-886 & 900-903 28, 1240-1262 35, 1574-1584 36, 1622-1623 37-38, 1673-1706 40-41, 1791-1801 & 1824-1833 41, 1845-1866 43, 1946-1958
Development of problem solving ability	2, 75 4, 169-175 5, 228 13-14, 586-623 17, 754-755	1, 36-41 2, 69-70 3, 105-128 4, 182-183 6, 248 -255 7, 282-313	5, 209-227 7, 277-284 15, 641-650 18, 797-820 23-24, 1032-1051	17-18, 771-788 18-19, 822-857 37-38, 1694-1710	2, 52-57 2-3, 64-97 4, 143-144 7, 287-294 13-14, 580-619	5, 209-228 11-12, 500-519 30-31, 1358-1386	8, 321-349 33, 1491-1506 39-40, 1778-1791	14-15, 631-647 & 667	13-14, 592-616 19-20, 837-869 31-32, 1412-1443	8, 319-325 9, 385-394 9, 396-398 16-17, 710-731 17, 747-754

	22, 970-975 23, 1009-1011 23, 1017 21, 923-941 17, 760-778 11, 464-466	24, 1058-1086 27, 1213 28, 1269-1284 31, 1398-1416 15, 681-686 16, 692-698 19, 829-862	19, 821-825	40-41, 1827-1860	31, 1408-1412 33-34, 1510-1533				32-33, 1464-1475 34-35, 1557-1591 36-38, 1637-1703 52-53, 2373-2386 53-54, 2416-2432	34, 1545-1552 42-43, 1893-1936 48, 2160-2163
Improved emotion recognition and regulation	16, 712-716 20-21, 895-917	16, 702-715 18, 811-818	25, 1103-1106	3, 112-114 13, 555-557 13-14, 586-628 15, 651-655 18, 812-819 39, 1779-1790	3, 134-136 20-21, 908-931 22, 966-976 26, 1149-1174 26, 1176-1184 26-27, 1189-1195 33, 1506-1508	10-11, 448-481 11, 495-498 13-14, 588-629 22-23, 999-1017 23-24, 1023-1076 36, 1616-1627	6, 249-251 11-12, 494-509 35, 1572-1602	38, 1723-1726	33-34, 1479-1533	8, 326-358 11, 460-461 11-12, 494-500 14, 607-613 15, 649-650 16, 700-704 17, 735-740 26, 1169-1172 26-27, 1184-1193 35, 1570-1579
Increase in empathy	29. 1282-1286			34, 1520-1528 44, 2019-2021 45, 2030-2032	16-17, 711-746 27-28, 1214-1272 31, 1380-1392		37, 1674-1686		4, 152 16, 699-725 27, 1223-1228 48-49, 2186-2210 50, 2267-2269 55, 2486	1, 39-40 2, 50-62 32-33, 1457-1469 34, 1532-1535 39-40, 1779-1783 44, 2005-2006
Feeling regret/ remorse		27-28, 1227-1241 30, 1356-1357 30, 1376		44, 2015-2017	28, 1239-1244 28, 1267 31, 1380	33, 1542 35, 1576-1579	38, 1725-1729		49-50, 2225-2265 54, 2473-2474	15, 636-641

Understand the importance of implementing skills in the future	21, 948-960	15, 671-675		2, 55 12, 547-549 13, 566-567 37, 1686-1692	1, 24-26 31-32, 1420-1423 35-36, 1587 & 1626 38, 1709-1721	38, 1735-1741	30, 1360-1364	14, 607-629 26, 1176-1187 28, 1267-1269	16, 685-690	10, 444-445
Increase in confidence				43-44, 1963-1982						
Self-reflection	30, 1346-1351 29, 1288-1304 24-25, 1088-1099	22, 1001-1009 30, 1364-1368 33, 1479-1481	13, 565-576 16, 693-695 19-20, 864-871	45, 2024-2028 45, 2067	2, 61-62 3, 96-103 10, 440-441 12-13, 509-561 23, 1010-1011 23, 1033-1037 23-24, 1054-1086 31, 1396 31, 1411	2, 91-92	24, 1089 38, 1696-1702 38-39, 1739-1768	5-6, 195-257 6-7, 268-293 31-32, 1416-1439 32, 1458-1462 39-40, 1785-1793 44, 2004-2021 47-48, 2154-2175	9, 395 10, 439-442 34, 1523-1542 54, 2442-2446	10, 433-439 10, 449 27, 1206-1221 33-34, 1505-1530 38-39, 1730-1739 42, 1878-1879
Future goals/ Motivators	24, 1066-1067 18, 804 30, 1356-1357 29, 1309-1318	2-3, 81-95 31-32, 1421-1429 32, 1443-1463	6, 269-274 7, 289-290	19, 856-862	13, 569-574	3, 132-136	3, 92-100 5, 183 30, 1373 40-41,1823-1834	23-24, 1055-1066 25, 1103-1113 27, 1195 39-40, 1785-1814 42, 1893-1901 43-44, 1973-1999 58, 2647	29, 1295-1312 53, 2409-2414 62, 2826-2834	3, 116-121 13, 561-563 28-29, 1276-1280 30, 1328-1345 32, 1426-1439 38, 1717-1718 45, 2032-2034
Internalisation of skills					5, 186-208 24-25, 1096-1108	28-30, 1242-1356				13, 555-561 47-48, 2131-

Perseverance						7-10, 303-445				26, 1159-1160
Perspective taking					16, 711					23-24, 1041-1059 26, 1169-1180 32, 1457 33, 1473-1486
Superordinate Theme 3: "I'm a changed person": Transforming self										
Behavioural change	2, 64-67 15-16, 684-689 16, 707-709 16, 720 24, 1051 26, 1177-1182 27, 1193-1202 27, 1217-1221 28, 1236	2, 60-65 2, 77-79 8, 347-358 18, 805-809 21, 958-961 22, 983-991 28, 1255-1266 30, 1339 21, 952-956	21, 938-940	2, 56-57 15, 681 16-17, 695-761 18-19, 822-832 19, 870-871 28, 1273-1275 29, 1297-1298 29, 1323-1336 30, 1340-1350 33, 1507 36, 1624 36, 1634-1653 37-38, 1694-1704 39-40, 1792-1819 41-42, 1884-1927 43, 1942-1946	1-2, 45-50 3, 105-136 6, 233-239 6, 252-272 21-22, 949-964 22, 968-1005 35, 1572-1595 36, 1618 40, 1791-1808	2, 57-63 2, 73-74 14, 631-637 22, 974-997 25-26, 1111-1150 32-33, 1467-1491 34-35, 1557-1584	2, 62-63 4, 163-179 5, 226 6, 261-265 6-7, 270-286 23, 1023-1044 24, 1056-1064 25, 1109 26, 1148-1155 26, 1174 29-30, 1321-1352 30, 1360-1364 31, 1402 34-35, 1531-1562 36, 1625-1635	3-4, 138-161 6, 231-257 7, 281-293 24, 1097-1100 25, 1119-1123 28, 1251-1261 29, 1314-1325 33, 1514-1515 41, 1852-1860 42-43, 1917-1963 46, 2073-2095 47, 2135-2150	2, 77-80 3, 96-122 9, 397-401 20, 883-887 31, 1383-1410 32, 1453 46, 2080-2091	9, 364-375 10-11, 449-456 12, 511-517 14, 590-597 14-15, 617-656 17-18, 764-794 25, 1112-1127 27, 1197-1202 28, 1271-1276 35, 1556-1568 39, 1739-1743 40, 1809-1820

Change in feelings			16, 719-723	18, 806-808 28, 1268 32, 1430-1433 33, 1481		11, 483-489 26, 1152-1185	25, 1102-1113 26, 1167-1170	25, 1119-1123 32-33, 1468-1505 36-37, 1651-1675 48-49, 2193-2215	36, 1615-1617	18, 791-798 39, 1745-1757
Feeling connected and improved relationships	4-5, 181-184 5, 188-189 5, 195-196 18, 815-816 19, 831 19, 846-850 20, 872-879 14-15, 638-647 16, 720-725 17, 735 16-17, 730-749	11, 469-494 11-12, 497-540 11-12, 548-553 20, 888-892 21, 922-935 21, 945-952 23, 1042-1054	12, 501-505 19, 831-857	3-4, 118-169 22-23, 1005-1013 25-26, 1112-1192 27-28, 1239-1242 30-31, 1373-1405 32, 1437-1449 32-33, 1461-1487 33, 1500-1507 34-35, 1534-1586 35, 1593-1607 38-39, 1729-1754	25, 1130-1137 27, 1199-2000 37, 1676-1695 38, 1697-1707 38-39, 1727-1753		28-29, 1270-1310	25-26, 1127-1151 26, 1153-1174 29, 1289-1312 29-30, 1331-1351 34, 1519-1527 51, 2311-2312	9, 408-410 14, 621-634 36, 1615-1621 39-43, 1781-1942 44-45, 1973-2030 46-47, 2103-2115 62-63, 2844-2846	12, 523-535 18, 798-801 35-36, 1591-1612 45, 2044-2050
Attitudinal change	25, 1127-1129 29, 1322 25, 1121 29-30, 1324-1338 25-26, 1135-1143 5, 195-196 5, 210-213 28, 1268-1274 30-31, 1366-	21, 937-943 26, 1181-1183 27, 1209 29, 1296 29, 1311 32-33, 1468-1470 35, 1569-1572	2, 68-73 2-3, 90-98 3, 110 6, 260-265 13, 553 13, 581-590 20, 877-878 21, 930 24, 1086-1090	5, 193-198 7, 310-311 19, 866 23, 1017-1018 32, 1457 36, 1628 38, 1704-1706	7, 278 9-10, 402-421 39, 1783-1788	3, 109-125 6, 251-252 31-32, 1405-1431 33, 1496-1510 35-36, 1587-1607	2, 83-85 3-4, 134-141 6, 234-247 6, 254-257 21, 931-934 25, 1123-1133 26, 1165 31-32, 1420-1428 33, 1470-1479 40, 1806-	7-8, 301-324 26, 1189-1192 41, 1880 43, 1967-1971 51, 2303-2329	25, 1134-1138 29, 1316-1317 36, 1635 51-52, 2338-2350 54, 2450-2451	7, 317 9, 390-394 13, 567-576 22, 995-1001 23, 1024 24, 1078-1086 27, 1197-1198 29, 1289-1320 30, 1345-

	1373						1819			1346 32, 1443 36, 1627-1636 37, 1666-1671 39, 1770-1779 43-44, 1960-1974 44-45, 1992-2028
Shift in beliefs	3, 92-105 2, 77-79 7, 283-298 26, 1184-1186 23, 1027-1037 26, 1156-1166 31, 1381-1385	18, 820-826 27, 1201-1205 31, 1386-1389 33, 1472-1474	2, 55-64 21, 933-936 22, 967-974 23, 1005-1015 25, 1108-1116	24, 1084-1093 32, 1428 38, 1714-1715 42, 1927 43, 1933-1940 45, 2049-2051 46, 2076-2086	4, 148-152 4, 166-182 5, 210-212 7, 312 13, 578 25, 1121-1126 36, 1622-1644	2, 83-85 6, 238 12, 509-513 15, 644-659 22, 965-968 27-28, 1219-1239 31, 1391-1403 32, 1433-1459 33, 1535-1551	2, 51-54 4, 151 7, 290-315 8-9, 365-377 10-11, 437-459 14, 618-627 20-21, 905-929 23, 1046-1053 24, 1068-1072 26, 1159-1161 31, 1392-1418 38, 1710-1721 39, 1772-1773 41, 1839-1855	5, 222-228 27-28, 1201-1241 31, 1383-1393 34. 1531 34, 1539-1559 34-35. 1561-1578 41, 1864-1876	10, 426-433 20, 869-874 29, 1321 34, 1523-1546 38-39, 1711-1782 45, 2039-2040 45-46, 2046-2078 48, 2156-2181 48-49, 2186-2218 50-51, 2275-2303 54, 2455-2463 62, 2814-2834	1, 37-39 2, 76-78 11, 473-478 11, 482-485 15, 660-664 17-754-760 20, 890-898 27-28, 1227-1233 30. 1350-1362 33, 1492-1505 36-37, 1641-1662 40, 1805-1806 41, 1838-1843 41-42, 1865-1891 42-43, 1917-1922
Superordinate Theme 4: “I didn’t really wanna do it”: Facing Adversity										

Undesirable thoughts and feelings	2, 85 3, 116 4, 156 4, 164 9, 405 10, 415-416 10, 430	10-11, 449-463	3, 121-134	6, 235-246 7, 279-302 21, 927-939	9, 372-381	4, 147 & 168-169 18-19, 807-827	3, 121-122 5, 193-201 15-16, 671-696 16, 706-713	9, 370-377 39, 1765-1773	6, 230-255 24, 1063-1093 26, 1166-1174 28, 1267-1268 & 1279-1281 58, 2618-2625 66-67, 3027-3044	3, 115-125 19, 824-831 20-21, 905-912
Fear of being judged	10, 441-449 4, 160 4, 145-146 31-32, 1405-1419 32, 1431-1437	19-20, 872-876	10-11, 452-460 11, 472-484				19-20, 866-882		27-28, 1235-1277	
Specific teaching strategies	3, 118-125 7-8, 305-323	5, 214-225	8, 325-342 8-9, 349-391	8, 336-359	41, 1863-1875	15-16, 663-703 17, 733-769	17, 757-770		13, 580-588 55, 2496-2501 55-56, 2522-2527 56-57, 2563-2579 57, 2587 59 & 60, 2668-2669 & 2714-2716 63-64, 2886-2903	
Duration of the programme	13, 557				14-15, 641-662 40-41, 1823-1846					48-49, 2173-2237 51, 2287-2288

Applicability of concepts in the future			21, 914-926 23, 1026-1028 24, 1063-1066	46-49, 2104-2220					21-22, 937-996	
Trust				6, 250-262	9, 383-398		27-28, 1199-1260			7, 295-313
Sense of loss				27, 1202-1232				16-17, 721-747	6, 267-271 7-8, 302-354 30, 1356-1370 63, 2855-2856	
Disruption						19-21, 841-920	42-43, 1923-1955	17-18, 772-814 53-54, 2436-2452	55, 2505-2518 56, 2538-2553 60-61, 2751-2754	22, 989
Superordinate Theme 5: They could learn from us": Share experience										
Improve teaching strategies/ environment	33, 1468-1482			50-51, 2275-2318 51-52, 2335-2374 52-53, 2382-2397	15-16, 666-733 40-41, 1823-1859	37-38, 1663-1717		54, 2456-2472	57, 2604-2606 57-58, 2595-2643	50, 2241-2254
Consolidate skills								16-17, 733-737	6-7, 273-300	
Shared learning	34, 1512-1521 34, 1523-1525	34-35, 1553-1567	26, 1157-1171 26, 1173-1188	53, 2414-2428	39, 1770-1779 42, 1899-1900	38, 1726-1733	41-42, 1874-1895 41, 1868	52-53, 2345-2428 54-56, 2480-2566	47, 2123-2149 61, 2769-2792	50-51, 2268-2296

					39, 1759-1765 42, 1904-1912			56-58, 2570-2643 58-59, 2657-2667	64, 2915-2920 65-66, 2957-3023 68, 3076 68, 3088-3089	

Appendix U: University of Nottingham – Ethics

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Our reference:
RGS 13088
Your reference:
13/WM/0296

0115 9515679
sponsor@nottingham.ac.uk

Research and Graduate Services
University of Nottingham
King's Meadow Campus
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SOLIHULL REC
East Midlands REC centre
The Old Chapel
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NG1 6FS

Dr. Simon Duff (Director, Top-up Doctorate in Forensic Psychology)
B15, Institute of Work, Health & Organisations
University of Nottingham
Yang Fujia Building, Jubilee Campus
Wollaton Road, Nottingham, NG8 1BB

10th July 2013

Dear Sir or Madam,

Sponsorship Statement

Re: A qualitative study exploring learning disabled offenders' experience of a Thinking Skills Offender Programme, and their perception of its impact on factors contributing to their offending behaviour.

I can confirm that this research proposal has been discussed with the Chief Investigator and agreement to sponsor the research is in place.

An appropriate process of scientific critique has demonstrated that this research proposal is worthwhile and of high scientific quality.*

Any necessary indemnity or insurance arrangements will be in place before this research starts. Arrangements will be in place before the study starts for the research team to access resources and support to deliver the research as proposed.

Arrangements to allocate responsibilities for the management, monitoring and reporting of the research will be in place before the research starts.

The duties of sponsors set out in the NHS Research Governance Framework for Health and Social Care will be undertaken in relation to this research.**

* Not applicable to student research (except doctoral research).
** Not applicable to research outside the scope of the Research Governance Framework.

Yours faithfully

Paul Cartledge
Head of Research Grants and Contracts
University of Nottingham

world-changing research
from The University of Nottingham

Appendix V: NRES Committee West Midlands - Ethics

NHS
Health Research Authority

NRES Committee West Midlands [redacted]

14 October 2013

Dr Simon Duff
Director, Top-up Doctorate in Forensic Psychology
The University of Nottingham
YANG Fujia Building
Institute of Work, Health & Organisations
Wollaton Road, Nottingham
NG8 1BB

Dear Dr Duff

Study title:	**A qualitative study exploring learning disabled offenders' experience of a Thinking Skills Offender Programme, and their perception of its impact on factors contributing to their offending behaviour.**
REC reference:	**13/WM/0296**
Protocol number:	**13088**
IRAS project ID:	**131338**

Thank you for your letter of 05 September 2013, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator [redacted]

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

Appendix W: West Midlands Comprehensive Local Research Network

Coventry and Warwickshire NHS Partnership Trust

West Midlands [redacted] Comprehensive Local Research Network
[redacted]

2nd December 2013

Mrs R Dhaliwali
University of Nottingham
YANG Fujia Building
Institute of Work
Health & Organisations
Wollaton Road
Nottingham
NG8 1BB

Dear Mrs Dhaliwali

Project Title: Learning disabled offender's experience of the TSOP
R&D Ref: PAR180713
REC Ref: 13/WM/0296

I am pleased to inform you that the R&D review of the above project is complete, and NHS permission has been granted for the study at [redacted] The details of your study have now been entered onto the Trust's database.

The permission has been granted on the basis described in the application form, protocol and supporting documentation. The documents reviewed were:

Document	Version	Date
REC Favourable Opinion Letter		14.10.2013
Participant Information Sheet	2.0	05.09.2013
Participant Symbolised Information Sheet	2.0	05.09.2013
Participant De Brief	1.0	08.07.2013
Interview Schedule	1.0	08.07.2013
Consent Form	1.0	08.07.2013
Symbolised Consent Form	1.0	08.07.2013
Symbolised Card	1.0	08.07.2013
Protocol	1.0	08.07.2013
R and D Form	131338/474770/14/582	12.07.2013
SSi Form	131338/474924/6/276/204142/276325	11.07.2013

All research must be managed in accordance with the requirements of the Department of Health's Research Governance Framework (RGF), to ICH-GCP

Appendix X: Summary of findings for participants

Rationale:

Rani met with you in February 2014 to do some research. She told you that people with learning disabilities do not always get heard and you had the chance to speak up and say what you thought about the Thinking Skills Offender Programme (TSOP).

- She wanted to know what it was like for men with a learning disability to go to the TSOP.
- She wanted to know what you learnt from the group and,
- Whether you thought your offending behaviour had changed by going to the group.

Findings:

Five themes were found from the interviews:

1) "It's helped me a lot": Group as a beneficial process

This theme shows how patients valued the group.

LD patients felt they were able to get the treatment they needed in hospital. They felt proud about completing the group and learning new skills to help them problem solve better.

"…well cause they've all got learning difficulties and prison wasn't my progress and get no treatment there and come here to em [hospital] get treatment."

"I was really proud of myself, pleased… And least I've done something bout getting like my own situations, coping strategies"…"Ain't been violent. Or abusive anything… And you know that's actually something I actually achieved."

Patients recognised that they had similar problems to other patients in the group so they were able to support each other. The group rules helped patients to feel safe and open and honest

"I used to help other patients doing, you know how to come get diary together, read it out to em some of em can't read."

"But then we bonded, as a group, and we helped each other and I think that's how I got through it…"… "'Cause I think most people had the same problems, that's it why we bounced off each other."

Some patients felt the support they got from family and other professionals helped them to finish the group. Some patients said the diary and 'Bert's' character helped them to understand the work.

"The diaries helped me a lot, stopped me kicking off and that, and helped me…to talk to the staff more better."

2) **"I've become a better person": Personal Growth**

This theme shows how patients have developed skills.

Some patients have developed a better understanding of what might have led them to offend (e.g. drugs, alcohol, difficulty solving problems, stress, difficulties within relationships, little/no support), and some patients felt bad for what they did.

"I set fire… Like cos I was under stress mainly through alcohol with drugs, em… I was drinking every day… I em, couldn't cope em…I needed some support… So that's the reason why I set a fire…"

All patients said they could now solve their problems better by stopping and thinking. Some patients said they were better at thinking of lots of solutions and to think about the consequences of their behaviour. Patients also said they were now able to recognise their own and other people's emotions through facial expressions and body posture.

"Well learning to use your STOP's… So you don't get in trouble… you don't wanna lose things that you've got… Ground leave, community leave…"

"And how can you tell from other people whether, how they're feeling?" "By facial expressions, by their body language…"…"… I can recognise my mood, my moods dropping then I know I can go, I, I need to ask for support..."

Some patients can now understand that others might think differently to them. Most of the patients were able to look back at their life, and their offending behaviour through the diary and think about what they needed to change. Some patients said they did not give up when they had a problem and kept trying to solve it. One patient felt more confident.

"Understanding other people's points of view… that was a big one for me."

"Reflection is to looking at the… complete situation em on the diary… And, yeah some of the reflections I've looked at… I've handled it pretty well… But some the situations I've had I could've dealt with it a lot better than what I did."... "…So you reflect on what, what could be linking to your offences what could help…"

"Aggression was the norm but now I, I've taken a big step back from that… And when I see… other people do it I eh, it still triggers in my mind… sometimes I think God I used to be like that."

Some patients understood that it was important to keep practicing their skills even when group had finished. Other patients said that they could solve problems in their mind now because they could remember the diary.

"Do you still do your diaries?""… I actually do it in my head… I got em imprinted in my head…" "Now I think… if it ever come to me getting into a situation when I was out there… Just gonna go back to like having a diary in me head again… -

3) "**I'm a changed person": Transforming Self**

This theme shows how patients believe they have changed because of doing the TSOP.

Patients said they were less physically and verbally aggressive towards others and self-harmed less. Some patients said that family members had also seen this change.

"It's like I used to get like verbal aggression… Also I used to self-harm but I stopped the self-harming and I've stopped being verbally aggressive as much now it's only very minimum I do it now."

"…if I had a confrontation… I would not walk away from it. And that's to do with my pride… But I started to let me pride go a bit now, well he, since I done this group… If I have a confrontation I rather walk away cause I know the consequences of my actions."

Patients also had a change in attitude towards their offending behaviour and understood it was important to do treatment so that they can change. Patients were now feeling more positive about their life.

"'Cause em I will think to myself now, what the point in getting into em fights… That don't get you nowhere."…"…And going try keep out of trouble and don't re-offend again."…"Keep away from the wrong people."

"Suppose I talk to me mum properly. I used to give her an attitude on the phone but it's, now I'm alright with her"… "You said you didn't have a care in the world, who do you care about now?" "Family… The way I feel…"

Patients also changed their beliefs about their violent and aggressive behaviour and what they think led them to offend. They felt they were now able to solve problems better and that engaging in treatment would help them to leave hospital quickly.

"I've learnt lot violence does not solve anything…It's before I did that group I didn't know what do to… But now since I've done that group I know what to do."…"…If you're violent you're gonna go down for a long time… But if you're not violent and you're talking to people and tell them what the problem is… They can sort it out and solve the problem for you, or you can solve the problem."

"…I've always said to myself in the past alcohol is always to blame… But it's not, it's, it's totally opposite you're the one picks the drink up… but I never used to recognise that..."

Patients said they were now able to feel more positive emotions. Some patients felt their relationship with family members, staff and patients were much better.

"Before I came 'ere… Depressed, suicidal, pissed off, violent."…"And at the moment what kind of feelings are you having?"…"Happy, excited, everything…'Cause I'm moving on forward… Which I've never had before."

"I get on betta with people now since I done that before I never used to really get on with people."… "I understand em betta…"… "Listen to em… I never used to listen to em before…"

"I can respect the women more easier not to kicks off an that… I got used to talking to em, trusting em more…"

Themes one, two and three all link together to help us to understand how patients belief the TSOP has helped them with the factors that they think lead them to offend.

4) **"I didn't really wanna do it": Facing Adversity**

This theme shows difficulties patients had when doing the TSOP.

Some patients felt nervous during group and found it hard to speak openly. Some participants found it difficult to talk about their offending behaviour in front of others in case they felt others would judge them for what they did, so they would have liked the treatment on a one to one basis. Some patients found it difficult to trust other group members.

"I was a bit nervous I didn't really wanna do it…".. "Horrible at first [TSOP] but like I say once I go into it I was alright…"… "Just when you go up to present your diary you got em all staring at you…"… "…Suppose I, I prefer it on a one to one basis… And then like they judge ya, say how you feel, that's 'orrible."

"…Cause I was that nervous I couldn't open up properly…"

Some patients said they felt upset once the group had ended because they missed the other group members and facilitators. Some were not sure how they would occupy their time.

"How were you feeling when it was finished?"… "I was a bit upset to tell you the truth." "Ah, I think it's missing the, other tutors who was in the group… Got used to some of 'em… when we used to listen to all the different diaries on… "What am I…gonna do in a couple weeks' time you know… "…I'm gonna miss 'em…"

Some patients found role-play's and the quiz difficult. Some patients felt the facilitators moved quickly from topic to topic where one patient felt facilitators went over the material too much. Some patients said there was too much noise on the unit where the group took place, which meant

they could not concentrate properly. One patient felt the group was too long, whilst other wanted the group and follow up sessions to be longer.

"…Em role-plays… like I used to find it difficult… Found it hard getting the words in proper order… Yeah used to get confused remember what's first, what's come after that one…".

"…Some of the blocks it was a little bit too short… block 3 em, was a long… And that had more detail in. I think that's what it would help a bit more."…"I had three follow up sessions… But it would've been nice for em to like, if there was a situation explore it a little bit more to see if you could have changed something on it …It was shorter time…"

5) **"They could learn from us": Share Experience**

This theme shows patients wanting to share their experience to help others, to improve future TSOPs and how they could improve themselves.

Some patients talked about the need to improve the diary so that there was more space to write/draw. Others said it would be helpful to complete the quiz as a group, and one patient said they would have liked more support to understand the material during sessions.

Some patients wanted to talk about their experiences in group with new patients going to the group, so that they can support them. Others wanted to share their group experiences with doctors and other professionals in different services so they can learn from their experience.

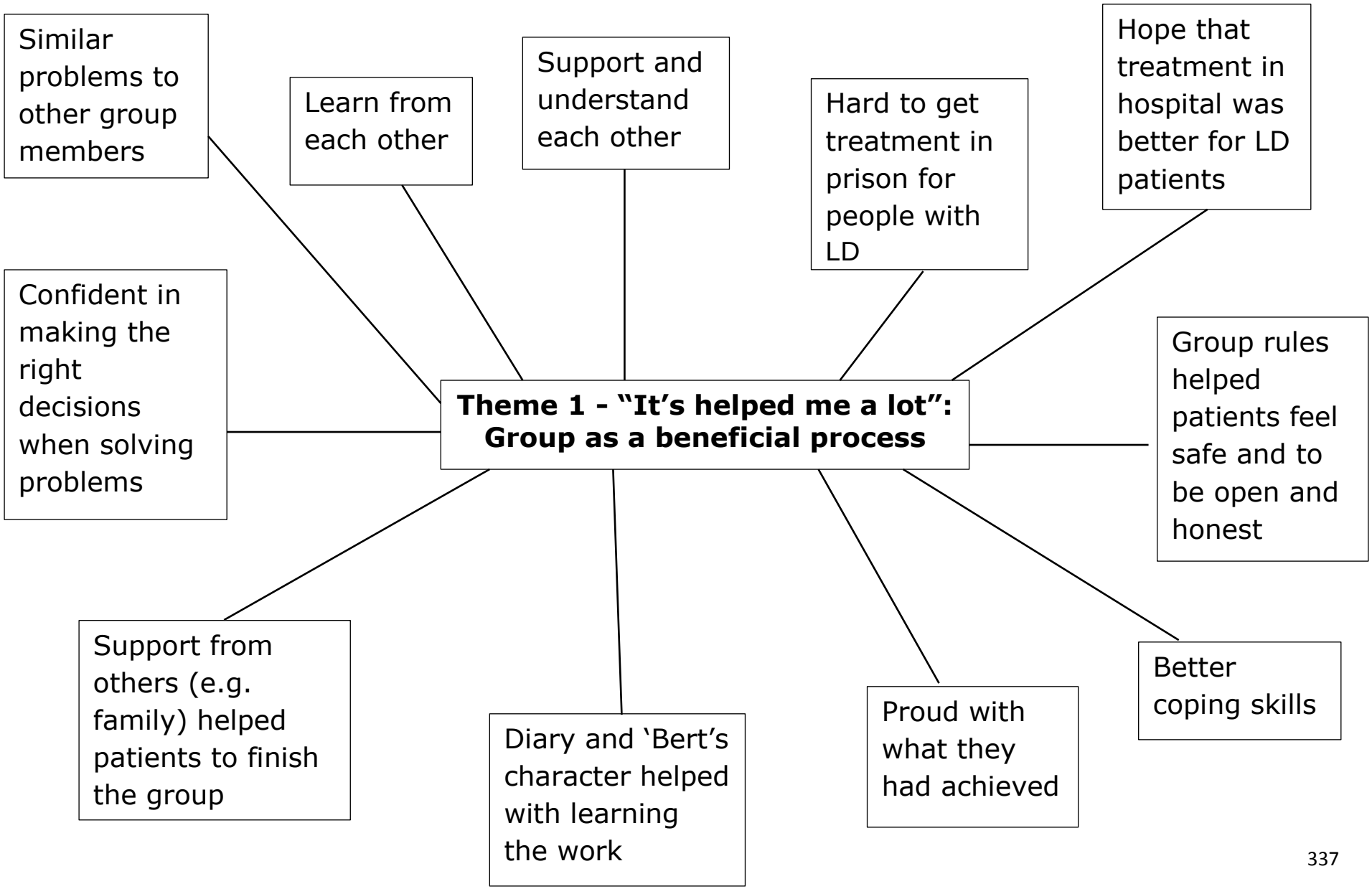
"I think, on the group you need a doctor…the doctors just read your reports… They don't see what we do on the groups… And it would be a learning experience for them as well… "To be hon, it was me I'd give a course to the staff about this actually… We never get our say in front of I don't know psychologists or doctors… I think there should be a big massive thing… All people from outside to come in and listen to us, how we done it…" …."Because they might not be doing this at other places… They could learn from us… Yeah, from our experience, and how we've done it."

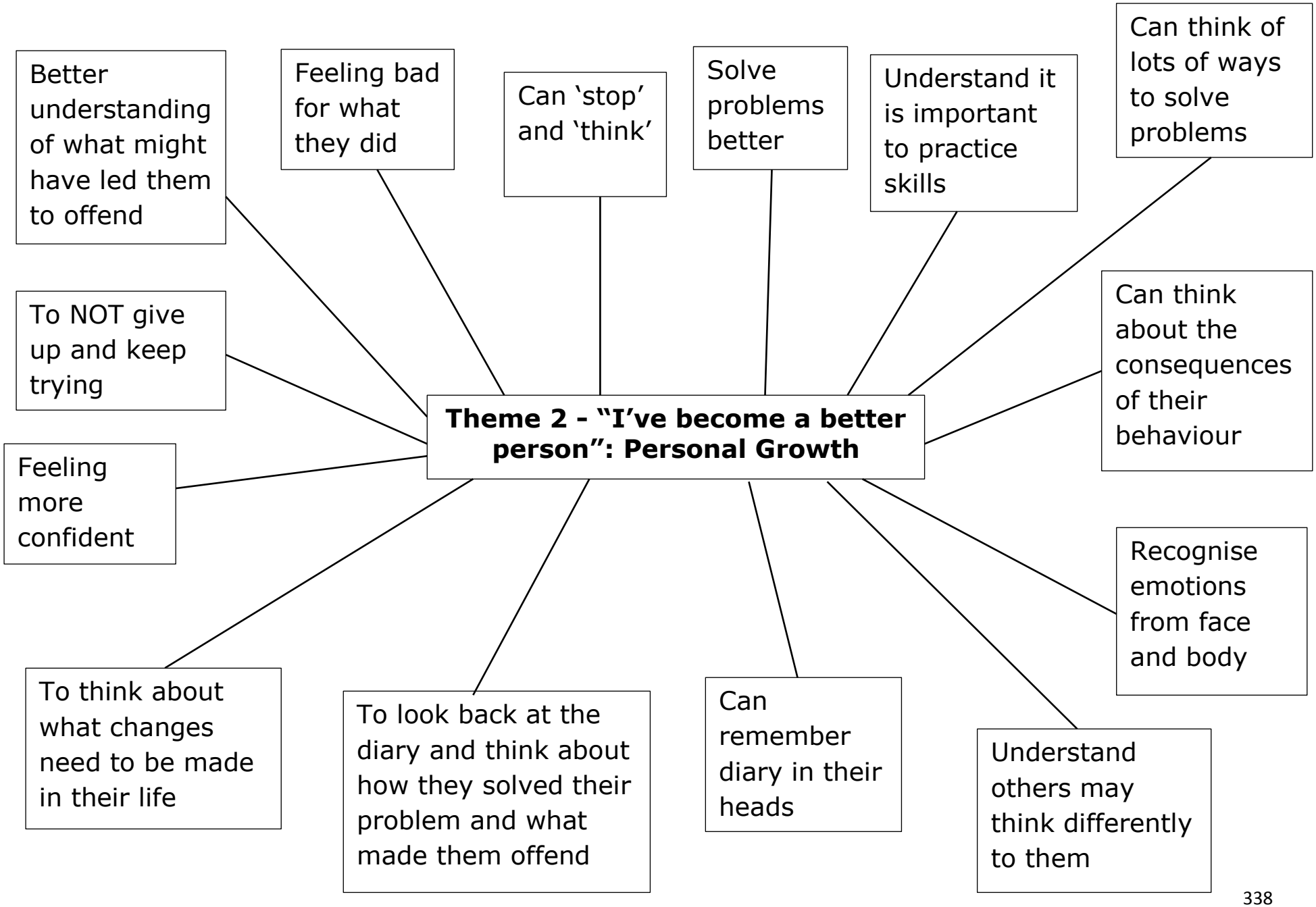
Conclusion

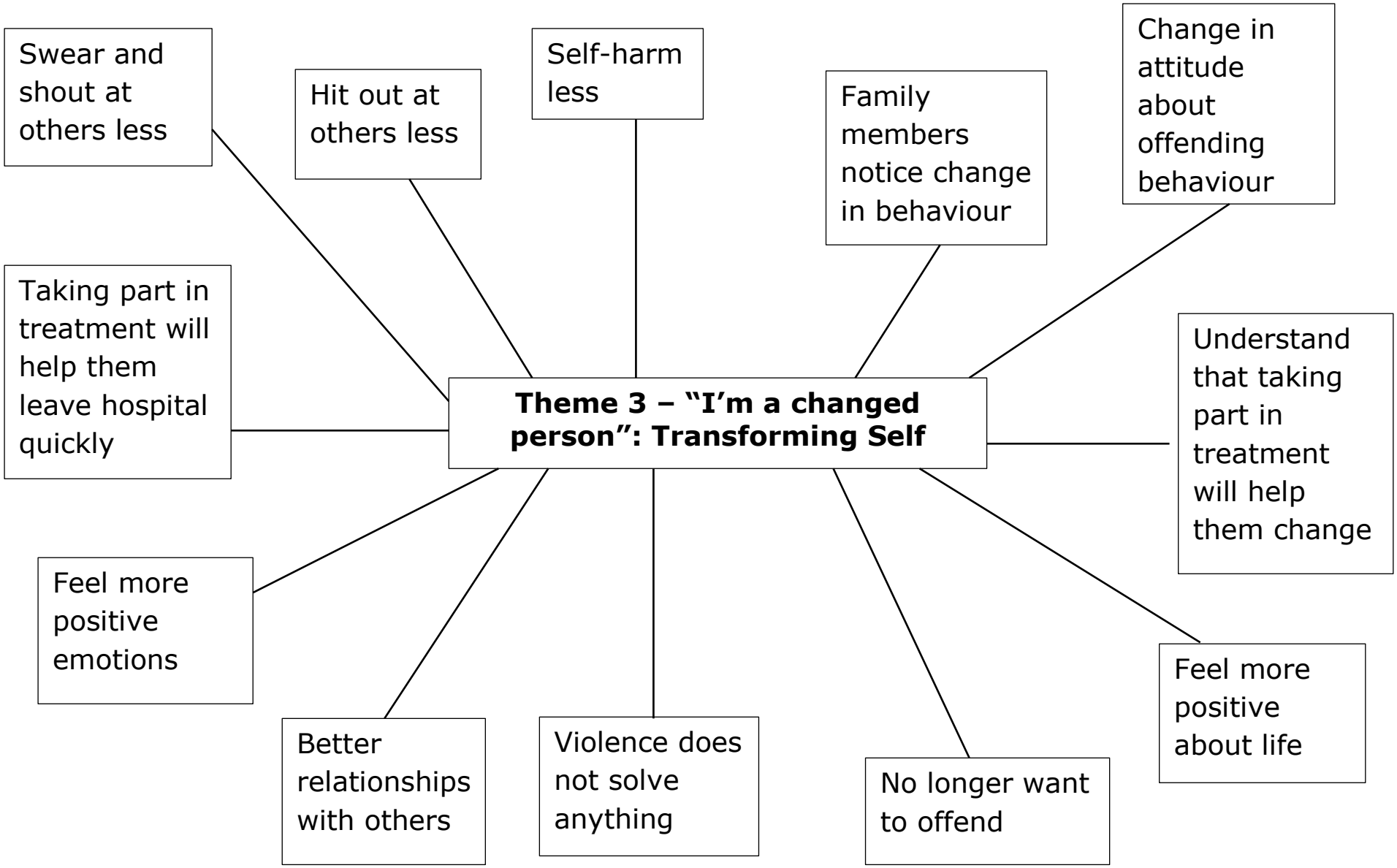
The patients said that the TSOP did help them to develop skills and to change the way they think and behave so that there was less chance of them re-offending. However, some patients did experience some difficulties in group and were able to say how they would like to share their experiences with others. This research will help develop future thinking skills programmes for patients with LD and shows that patients with a LD can take part in research.

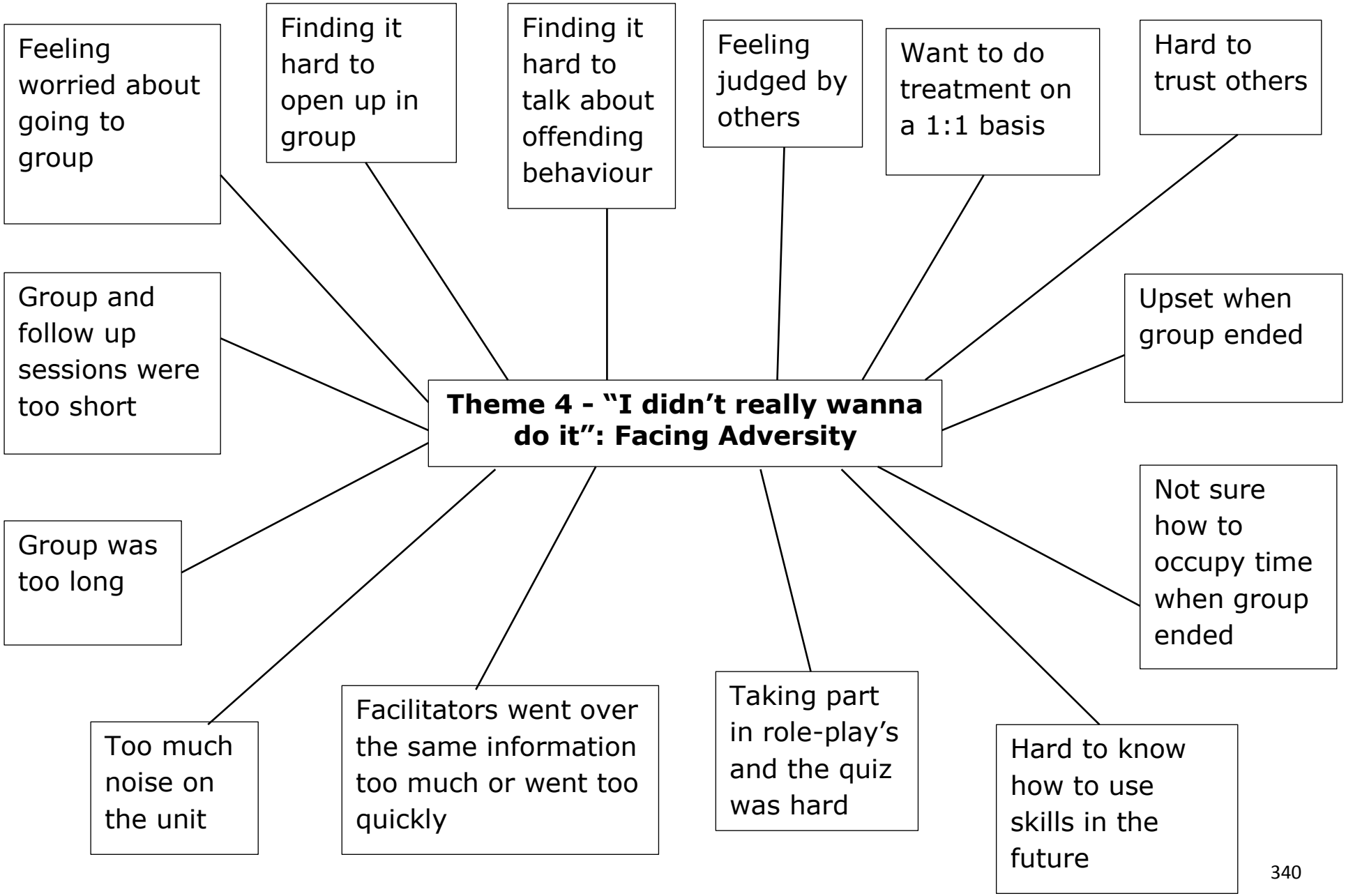
If you have any further questions please contact Rani Dhaliwal on 0121 329 4953

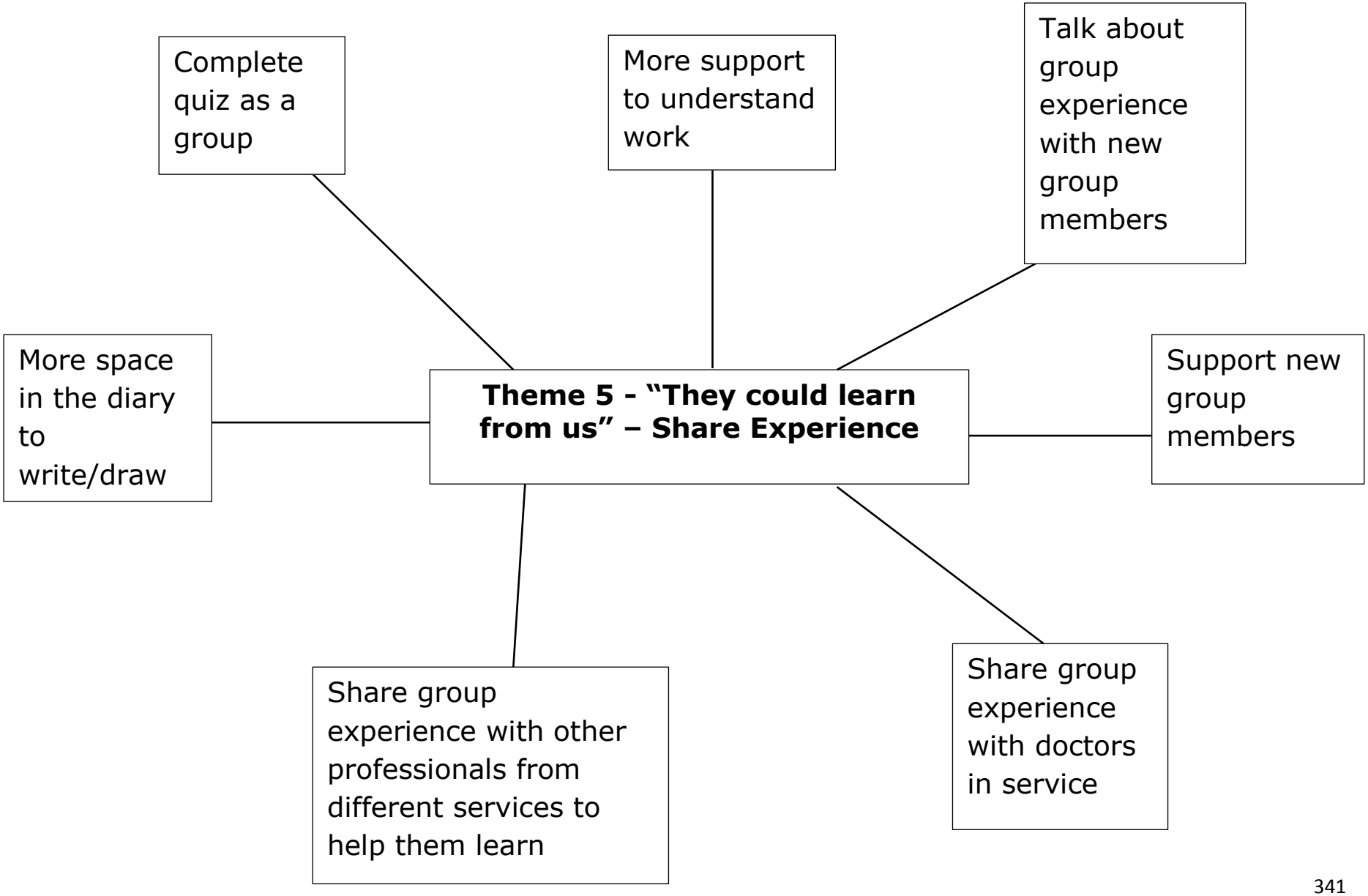
Appendix Y: Visual diagram of main findings for participants



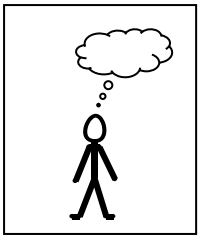

Theme 2 - "I've become a better person": Personal Growth
Better understanding of what might have led them to offend
Feeling bad for what they did
Can 'stop' and 'think'
Solve problems better
Understand it is important to practice skills
Can think of lots of ways to solve problems
To NOT give up and keep trying
Feeling more confident
Can think about the consequences of their behaviour
Recognise emotions from face and body
To think about what changes need to be made in their life
To look back at the diary and think about how they solved their problem and what made them offend
Can remember diary in their heads
Understand others may think differently to them


Swear and shout at others less
Hit out at others less
Self-harm less
Family members notice change in behaviour
Change in attitude about offending behaviour
Taking part in treatment will help them leave hospital quickly
Theme 3 – "I'm a changed person": Transforming Self
Understand that taking part in treatment will help them change
Feel more positive emotions
Better relationships with others
Violence does not solve anything
No longer want to offend
Feel more positive about life

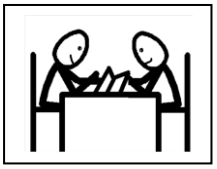

Feeling worried about going to group
Finding it hard to open up in group
Finding it hard to talk about offending behaviour
Feeling judged by others
Want to do treatment on a 1:1 basis
Hard to trust others
Group and follow up sessions were too short
Upset when group ended
Theme 4 - "I didn't really wanna do it": Facing Adversity
Group was too long
Not sure how to occupy time when group ended
Too much noise on the unit
Facilitators went over the same information too much or went too quickly
Taking part in role-play's and the quiz was hard
Hard to know how to use skills in the future


Complete quiz as a group
More support to understand work
Talk about group experience with new group members
More space in the diary to write/draw
Theme 5 - "They could learn from us" – Share Experience
Support new group members
Share group experience with other professionals from different services to help them learn
Share group experience with doctors in service

Appendix Z: Client Consent Form



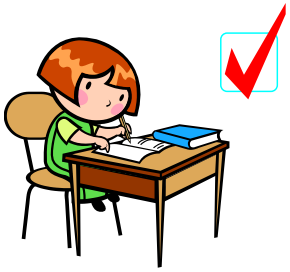
You _____ are working with Rani from Psychology



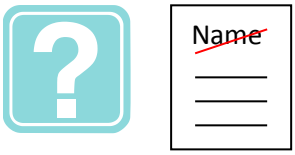
We have been talking about your difficult thoughts and feelings linked to your offending behaviour.



I am doing a course at university



As part of the course I would like to write about the work I am doing with you. The university needs to check my work.

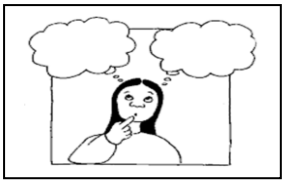


No one will know that the work is about you. Your name will **NOT** be on it.



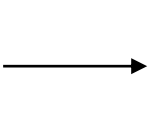
The work will only be read by my supervisor's at university and in this service.





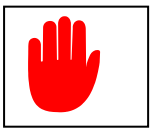
You do not have to agree to this work. You do have a choice

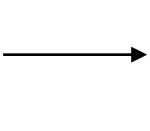






If you say **YES** Rani will write about her work with you. She will talk to you about what she writes

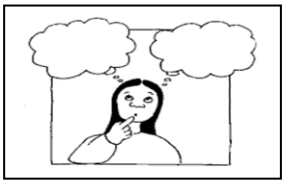


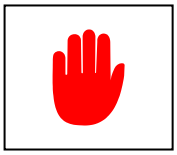




If you say **NO** Rani will **NOT** write about her work with you. She **WILL** carry on working with you









If you say yes, you can change your mind. You need to tell Rani and she will **STOP** writing about the work she is doing with you.

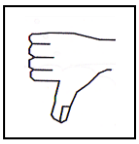
Any Comments:



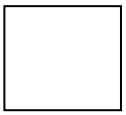
I _____ **agree** to Rani writing about the work we are doing together for her course.



I understand I do not have to do this and that I can change my mind about this at any time by telling Rani. The people at the University who read the work will not know that the work is about me. My name will not be on it.



I _____ **DO NOT** agree to Rani writing about the work we are doing together for her course.



Signed…….. **Date**…….

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Questions to gain informed consent for research case study

1. Why do I want to write up the work I do with you?

2. If you decide that I can write up the work that I am doing with you, who will read it?

3. Will the people who are reading the work know who you are?

4. Do you have to agree to me writing about your work?

5. What will happen if you say yes?

6. What will happen if you say no? What will happen to your treatment?

7. Can you change your mind if you say yes?

8. If you want to change your mind and you want me to stop writing about our work together, how will you let me know?

Appendix AA: Description of measures

Recognition of Emotions (devised in-house) -This assessment using static images of male and females expressing six set of emotions (i.e. anger, sadness, fear, disgust, happiness and surprise) to assesses many aspects of emotional recognition. This includes the breadth of language the individual possesses to describe emotion, the ability to recognise and label one's own emotional experiences and link these appropriately to situations. It gives opportunity to assess the ability to accurately recognise the emotions expressed by others from facial expression and other non-verbal cues and the ability to separate one's experiences from those of others.

Northgate Modifications of the Novaco Anger Scale (NAS; Novaco & Taylor, 2004) - The NAS includes 60 items that describe psychological aspects of the experience of anger. These are broken down into three scales: 1) Anger engendering cognitions, 2) Anger arousal and 3) Angry behaviours. In addition it provides a measure of the individuals' ability to regulate this anger, and so an effective coping response. The scores are then categorised into one of seven categories ranging from 'Very Low' through to 'Very High'.

Many of the original NAS items have been altered slightly in the Northgate modifications to make them more accessible and understandable to people with mild and borderline levels of intellectual disabilities. Often this has involved simplifying the language in many items by changing one or two words. Furthermore, the Northgate modifications of the NAS and PI are scored and interpreted in exactly the same way as the original measures.

The 3 Main identified Problems (3-MIP; devised in-house*)*

The Main Identified Problems assessment requires both the patient and their key worker or a staff-member who knows them well, to identify their perceived three main difficulties or problems at present. They are then required to rate the intensity of distress attributed to this problem and the frequency with which they are distressed to this degree pre and post-intervention.

Social Problem Solving Inventory – Revised (SPSI-R:L; D'Zurilla, Nezu & Maydeu-Olivares, 2002)

The SPSI–R assesses an individual's problem-solving strengths and weaknesses so that deficits can be addressed and treatment progress can be tracked throughout the Thinking Skills Programme. The Inventory consists of 52 items linked to the 5 dimensional model of social problem solving adapted from (D'Zurilla, Nezu & Maydeu-Olivares, 2002). The

SPSI is constructed of 5 subscales: Positive Problem Orientation; Negative Problem Orientation; Rational Problem Solving, including Problem Definition and Formulation, Generation of Alternative Solutions, Decision Making, and Solution Implementation and Verification; Impulsivity/Carelessness Style; and Avoidance Style.

The Barratt Impulsiveness Scale (BIS-11; Patton et al., 1995) assesses difficulties in the areas of motor impulsivity (i.e. acting without thinking), cognitive impulsivity (making quick cognitive decisions) and non-planning impulsivity (lack of concern for the future).

The scale has been designed to assess how much individuals actions are due to a lack of attention, hyperactivity, and a lack of self-reflection. This tool has been designed for a population without learning disabilities and the results must therefore be interpreted with caution. As this tool is yet to be standardised on a learning disabled population; the scores obtained by Mr A have therefore been compared against norms for a mixed adult population, psychiatric inpatients, and impulsive aggressive prisoners.

Locus of Control (LOC; Nowicki & Strickland, 1973) - This questionnaire assesses the extent to which the individual believes s/he has control over different situations. The responses given indicate whether the person has a more internalised locus of control (feels personally in control of events, choices, direction etc) or more externalised locus of control (controlled by others, fate, "the system" etc). Although the scale has been adapted for individuals with learning disabilities, it has not been standardised on a learning disabled population and therefore the answers given are only an indication of how he might respond to situations.

University of Rhode Island Change Assessment (URICA; DiClemente & Hughes, 1990)- The URICA is a 32-item self-report measure that includes 4 subscales that measure the stages of change: Pre-contemplation, contemplation, Action and Maintenance. It is used to assess an individual's motivational readiness for change in relation to a specific difficulty. From an individual's responses a 'Readiness to Change' score can be calculated.

Appendix BB: Overview of TSOP

This Cognitive Behavioural Programme is based on the Social Problem Solving Theory of D'Zurilla and his colleagues and various models and theories of emotional recognition and regulation. Group members progress through a number of stages or "blocks" which enable them to develop appropriate social problem solving and emotional management skills. These stages include 'What's going on?', 'STOP', 'THINK', 'GO', and 'Did it work?'

Initially, group members focus on being able to identify and track what is "going on" internally (i.e. their thoughts and feelings) and around them (i.e. their situation). They also develop awareness about how these factors tend to impact on how they react or behave. This understanding is often lacking or limited in those undertaking this programme. "Problem identification and definition", by recognizing "problem" thoughts, feelings and situations, is seen as the first step to appropriate social problem solving.

Following this, group members work on developing their awareness of their own emotional experiences and understanding and interpreting those of others appropriately, to aid with empathy and reduce misunderstanding of others' intentions. This is linked to a detailed block on developing skills to manage emotional arousal appropriately.

The next section follows the sequence of steps: "STOP – THINK – GO - DID IT WORK". "Stop' is seen as impulse control, and creating space in which the person can then do the next stage 'think'. During the "Stop" block group members learn about why they need to stop, think about what happens when they do not (i.e. they act in ways they have always tended to which tends to be anti-social or violent), why stopping is itself is not enough (i.e. that the problem may not be resolved just by avoidance or not acting) and develop a range of behavioural and cognitive strategies to manage their impulses.

During the next stage "Think", group members are introduced to the concept of different ways to solve problems. They develop different ways to learn to generate and make appropriate choices and what influences these or may be obstacles for them. The "Go" section involves enacting choices and what would positively or negatively affect this process. "Did it work?" focuses on evaluating and reflecting upon the problem solving process and making necessary adaptations.

Throughout the programme, criminogenic attitudes and belief systems are identified and challenged and group members are encouraged to develop more flexible ways of considering situations, ways to problem solve or act and the behavior and intentions of others.