An investigation of the delivery of psychological therapies to service users with Autism Spectrum Disorder (ASD) and complex needs in forensic settings

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BSc (Hons). MSc. MSc

Submitted in partial fulfilment of the requirements for the degree of Doctorate in Clinical Psychology

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July 2024

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Acknowledgements

I would like to express my gratitude towards the individuals who agreed to be interviewed. Thank you, this project would not have been possible without your special contributions. I hope that I have been able to represent your narratives in a way that is sensitive and true to you.

A special thank you to my project supervisors, Dr Karen McKeown and Dr Adrian Ierna, I am very grateful for the fantastic support you have provided throughout the entire research timeline. Karen, you're valuable and insightful feedback helped me develop greatly throughout the research process. Adrian, you very kindly offered to be the second reviewer for my systematic review at a time where I felt hopeless, and through this process you provided invaluable support, effort and input. Thank you both for supporting me in bringing this project to fruition. Thank you to the Librarian, Jenny McGhee, I am very grateful for your fantastic support in developing my Systematic Review. Thank you to my final year placement supervisor, Dr Kat Berlouis, who kindly accommodated my research requests and ensured that I took time for self-care.

A huge thank you to my close friends for your love and support all throughout my thesis journey. Thank you to the amazing friends that I gained during clinical training, Judhika and Tracey, having your support helped me endure the challenging times.

To my Mum and Dad, I cannot emphasise how grateful I am for your ongoing unconditional love and support. Thank you so much for being my anchor and strength, this project would not have been possible without you. Thank you to my lovely siblings, especially my sister Safia, for your care, kindness and love and for celebrating my every endeavour. To my beautiful Aunty Suriyya and Nani-amma, I am becoming emotional writing this. The last few months have been extremely difficult without you both and I've missed you every single day. A huge thank you for your kindness, love and unwavering support. Aunty Suriyya, you were a warrior and are a true inspiration to me. I wish to follow in your footsteps and hope to become a valued member of the healthcare profession. You both remain alive in my heart. Allah Yarhama. Finally, to my wonderful husband, Fahid, I am so grateful to have you, a special thank you for believing in me. I cannot wait to start our life journey together.

Chapter One: Systematic Review

Effectiveness of group psychological treatment for offenders with an Intellectual Disability (ID) and/or Autism Spectrum Disorder (ASD): A systematic review

Prepared in accordance with the requirements for submission to the Journal of

Psychology, Crime and Law (Appendix 26)

Abstract

Background

Group psychological therapies are considered best practice for managing risk of reoffending (recidivism) in forensic settings. However, literature evaluating the effectiveness of these interventions for individuals with ID and/or ASD is limited. Furthermore, certain ID and ASD characteristics may present as barriers to effective treatment responsivity, however current research-based understandings of these barriers also remain limited.

Aims

The objectives of this review were: i) to provide a comprehensive synthesis of available research aimed at evaluating the effectiveness of group psychological interventions for reoffending behaviours amongst individuals with ID and/or ASD; and ii) to ascertain whether the severity and symptom profile of ID or ASD impacts on group treatment responsivity.

Method

Four electronic databases; MEDLINE, Embase, PsychINFO and ASSIA were systematically searched using the PRISMA methodology. The search terms included keywords such as “Intellectual Disability”, “Forensic Service” and “Group interventions”. Study quality was assessed using the Mixed Methods Appraisal Tool (MMAT). A narrative synthesis of studies was carried out.

Results

Ten studies using quantitative one group pre/posttest designs, yielding 265 participants, met the inclusion criteria. All studies lacked a control/comparator group. Nine studies had a high quality rating, and revealed that individuals who completed group Cognitive Behavioural Therapy (CBT) displayed a reduction in future sexual and arson offending at follow up, evidenced by police/probation reports. Four studies found improved psychological outcomes, such as offence related cognitions/attitude, that were aligned with no further offending at follow up. However, in four studies, clinicians recorded ASD severity and characteristics, such as cognitive rigidity, as barriers to treatment responsivity, indicated by a higher number engaging in reoffending compared to those without ASD, at follow up.

Conclusions:

This review provides preliminary evidence suggesting that group CBT contributed to reducing reoffending risk in individuals with ID and ASD. However, more scientifically rigorous research is needed to ascertain whether positive treatment effects were actually

due to group CBT. Moreover, an examination of strategies that improve treatment responsivity in individuals with ASD is needed.

Introduction

Prevalence and offending risk in individuals with ID and/or ASD

In the United Kingdom around 2.16% of adults are diagnosed with an Intellectual Disability (Public Health, 2016). An Intellectual Disability (ID) is defined as:

"A significant reduced ability to understand new or complex information, to learn new skills (impaired intelligence), with a reduced ability to cope independently (impaired social functioning), which started before adulthood" (Department of Health, 2001, pg. 14).

The prevalence of Autism Spectrum Disorder (ASD) is estimated at approximately 1 in 100 of the population in the United Kingdom (Public Health, 2016). ASD is defined as a complex developmental condition where individuals experience persistent challenges with social communication and possess restricted interests and repetitive behaviour (American Psychological Association (APA), 2013).

Although neither an ID or an ASD diagnoses appear to account for large number of crimes in society, certain ASD traits such as reduced levels of empathy and ID characteristics, for example lower general intellectual functioning, may make these individuals more vulnerable to offending and reoffending (recidivism), resulting in these populations making up a significant portion (27%) of forensic samples (Lees-Warley & Rose, 2015). Violent offences are the most common types of offences for the general population and individuals with ID and/or ASD, and sexual reoffending, being the most prevalent with figures as high as 41% for the former and ranging from 27% to 40% for the latter populations (Melvin & Langdon, 2017; Margari et al, 2024).

Despite the increasing awareness of the vulnerability and prevalence of individuals with ID and/or ASD within forensic settings the current research-based understanding of the characteristics and effective treatment management of offending behaviours for these populations remains limited (Salter & Blainey, 2024)

Treatment management of individuals with ID and/or ASD and offending behaviours

Group psychological therapies are considered best practice for managing recidivism in forensic settings with Group Cognitive Behavioural Therapy (CBT) being the most commonly applied approach (Gannon, 2019). Group CBT typically consist of modular programmes delivered in a group setting, with the content focusing on reducing cognitive distortions,

increasing victim empathy, and developing a relapse prevention plan (Melvin, 2020). These programmes are commonly utilised with individuals with offending histories such as sexual offending, and are delivered across various forensic inpatient and community settings and are also adapted for individuals with ID and/or ASD (Lindsay & Smith, 1998).

In the general population, the rates of sexual reoffending can reduce to 15% following completion of group psychological treatment, which is a significant decrease from the above noted figure of 41% (Melvin & Langdon, 2020). These interventions have also yielded good outcomes for individuals with ID and/or ASD as the rates of sexual reoffending can reduce to levels varying between 0% and 37% following treatment which is lower than the above figure of 40% (Melvin & Langdon, 2020).

The effectiveness of group psychological interventions is measured by a reduction of reoffending behaviours, using subjective measures such as reoffending/reconviction rates through community keyworker/police reports (Melvin & Murphy, 2017). Although reducing recidivism risk is the primary goal of these interventions, using this outcome solely may not fully encapsulate the complexity of offending behaviours for these populations, particularly in cases where subjectively different criteria for reoffending have been used, and these inconsistencies make it challenging to statistically analyse reoffending data**.** Therefore, core psychological outcome measures that are fundamental to CBT interventions delivered in forensic settings, such as the Questionnaire on Attitudes Consistent with Sexual Offending (QACSO) and the Victim Empathy Scale (VES-A), are simultaneously utilised pre and post treatment to assess whether significant positive shifts arise when comparing to baseline to indicate a reduction in risk. These psychological outcomes can therefore be viewed as reliable pre-cursors of the likelihood of re-offending (Salter and Blainey, 2024). Similarly, Finkelhor's (1984) model of child sexual abuse highlights the influence of predisposing factors such as the offender's thoughts/motivations in wanting to engage in child sexual abuse and antisocial personality traits such as empathy deficits, to better understand the risk of reoffending. However, a caveat exists for individuals with ID and/or ASD where improved victim empathy does not always align with reduced reoffending behaviours, as factors such as generalising therapeutic skills to broader contexts and challenges in completing treatment follow up may arise (Andrews & Bonta, 2010). Despite these limitations, clinicians are invested in utilising both forms of measurements to examine the effectiveness of group psychological interventions in managing recidivism risk in these populations (Melvin & Murphy, 2017).

A meta-analysis conducted by Heppell and Rose (2020) has examined the utility of using both reoffending data outcome and psychological outcome measures simultaneously, to evaluate the effectiveness of group CBT at 1 to 2 year follow up across various forensic settings and pooled together scores on the QACSO, VES-A and further sexually abusive behaviour. Findings revealed that a large effect size of 1.6 was observed as only 53 out of 443 (11.5%) participants with ID went on to display further sexually abusive behaviour which was aligned with reduced cognitive distortions and increased victim empathy following treatment. Similarly, a meta-analysis conducted by Patterson (2018) with a sample of 118 sexual offenders with ASD and ID demonstrated a large effect size of 1.8, as all displayed reduced cognitive distortions, which were measured by pre and post QACSO scores, following group CBT. However, a limitation was that researchers did not ascertain whether a reduction in cognitive distortions was associated with reduced sexual reoffending.

A caveat to the above meta-analyses is that they only included single arm pre/post studies/case studies, as no controlled research, including randomised control trials (RCTs), has been conducted with individuals with ID and/or ASD and offending behaviours, due to the presence of ethical concerns around these vulnerable populations, such as the escalation of risk of being randomly allocated to control groups. Therefore, there may be inconsistencies in the interpretation of findings due to confounding bias, resulting in tentative conclusions drawn on treatment effectiveness as researchers cannot establish whether reoffending rates would be higher or lower if no treatment was given. (Duggan & Dennis, 2014). Furthermore, previous research has focused on group psychological treatment yielding positive outcomes for these populations with sexual offending behaviours, however there is a paucity of current research-based understandings on the effectiveness of these interventions in managing various offending behaviours in these populations. These limitations can impact on complex decision making around risk (Melvin & Murphy, 2017).

Moreover, a systematic review conducted by Dredge and Rose (2022) yielding 76 male subjects with ASD across ten studies demonstrated that group psychological interventions can be associated with poor treatment responsivity for individuals with an ID and/or ASD profile, as specific characteristics, such as cognitive rigidity, can make it difficult to internalise core therapeutic skills, therefore negating treatment responsivity and resulting in further offending.

Similarly, focus groups conducted with prison staff have indicated that the severity of an ID or ASD diagnosis can present as a barrier to responding to group treatment, for example group psychological programmes in prisons are often deemed unsuitable for individuals with

ID and/or ASD with low IQ levels, as they require group members to have an IQ of at least 80, resulting in the exclusion of these individuals below this threshold (Prison Reform Trust, 2021).

The above findings provide clinical insight that can inform risk formulations, however they are based on subjective case studies/ focus groups therefore giving rise to generalisability bias. Furthermore, current research based understandings of treatment responsivity factors in these populations remain limited.

Review aims

Although group psychological interventions are considered best practice in managing recidivism risk, the current research-based understandings of the effectiveness of these interventions for individuals with ID and/or ASD and various offending behaviours remain limited. Furthermore, the understanding of the specific factors that hinder effective treatment responsivity in these populations, such as cognitive rigidity, are underrepresented in the current literature. This highlights the significant need for a systematic evaluation of the effectiveness of recommended group psychological interventions in these populations, to yield evidence that can support appropriate risk management. Therefore, the current review will address the following aims:

i) Identify studies that evaluate the effectiveness of group psychological treatment for reoffending behaviours amongst individuals with ID and/or ASD
ii) To ascertain whether the severity and symptom profile of ID and/or ASD impacts on group treatment responsivity

Method

Inclusion criteria

The searches did not yield RCTs or studies with control/comparator groups, therefore studies using quantitative designs (such as, quasi-experimental/non randomised) were included. Study participants were required to have a diagnosis of Autism/ASD and/or an ID, aged 18 years and above, have convictions (as offending definitions are very broad in existing studies) and had to be involved in forensic settings, such as inpatient or community settings. Various criminal offences were included such as arson, sexual offending and criminal damage. In line with previous research on treatment management of offenders with ID and ASD, the effectiveness of group interventions was measured by changes in reoffending data, indicated via police/keyworker reports, and core psychological outcome data i.e. changes in cognitive distortions, as the latter were seen as meaningful predictors of offending (Finkelhor, 1984). Outcomes were taken pre and post intervention. Furthermore, qualitative data on treatment responsivity factors from individual studies, as assessed by clinicians, was included. Studies were selected from peer-reviewed journals and written in English.

Exclusion criteria

Qualitative studies were not included as they did not focus on evaluating treatment effectiveness. Studies including participants with no clear statements of formal ID and or ASD diagnosis were excluded. Studies focusing on individual treatments and outcomes other than offending were excluded. Case series/single case studies were also excluded. Participants in studies who were adolescents/juvenile offenders, witnesses and not suspects, grey literature, dissertations and review papers were all excluded.

Search strategy

The protocol for this review was registered on Prospero (Appendix 6). The search strategy was guided by the Population, Intervention, Comparator and Outcome (PICO) framework (See Appendix) and a systematic search was conducted using the four electronic databases below:

· Medline (Ovid)
· EMBASE (Ovid)
· PsycINFO (Ovid)
· ASSIA (ProQuest)

Search terms were derived from scoping searches where key terms commonly used in current literature were extracted and through consultation with clinical experts in the field. A date limit was not set due to there being a small number of studies specific to ID and/or ASD and offending/ reoffending behaviours that had been published. (See Appendix 1 and 2).

Three series of terms which defined the ID and ASD sample, type of offending behaviour and group intervention were utilised. For example:

Autis* or asd or Asperger* or Learning Disab* or LD
Offending or offend* or crim* or foren*
Inpatient or communit* or prison*
(Group* (therap* or CBT *))

Searching of databases took place from the 15th to the 30th of June 2023. Search terms were amended to meet the syntax criteria for each database.

Screening

The title/abstract and full articles were screened using the above eligibility criteria. A hand search of reference lists of identified articles was also carried out for additional relevant studies. The first reviewer conducted the search, screening and extraction of articles. A second reviewer randomly selected and reviewed 10% of the articles during the title/abstract screening phase and 20% during full article screening stages. A data extraction tool was created and utilised to extract key information relating to; authors, publication year, study design, sample characteristics, recruitment, outcome measures, and described key findings for all included studies (Appendix 4).

Quality appraisal

The Mixed Methods Appraisal Tool (MMAT) (Hong, Pluye & Fabregues et al., 2018) was employed for the quality appraisal of the included studies. The tool can accommodate a range of study designs, where each type of study is critically appraised via a series of five criteria with responses of ‘yes’ ‘no’ and ‘can’t tell’ for (Appendix 3). A rating out of 5 was presented for each study for quality and rigour purposes, where a yes findings per criterion was given 1 point and no/can't tell was given 0 points. A low score (1*, 2* and 3*) indicated that the paper had a low quality rating and a high score (4* and 5*) demonstrated that the paper achieved a high quality rating. This subjective strategy was developed by the review’s author, as utilising a ‘Yes/No’ criteria scheme only would not have been sufficient to compare study quality. The second reviewer assessed 4 (40%) of the final included articles and 80%

percentage agreement was reached, calculated as the number of agreement scores divided by the total number of scores multiplied by 100 (Goodwin, 2001). The discrepancies related to whether appropriate outcome and intervention measurements had been employed in the relevant studies and were discussed until mutual agreement was established.

Results of searches

The database searches yielded 396 articles. A hand search of reference lists of identified articles yielded a further 26 articles. One additional recent article was identified through consultation with a librarian. The above searches identified a total of 423 articles. After duplicate articles were removed, 253 articles remained which were screened using the eligibility criteria, which resulted in 57 articles. The 57 articles were also full text screened against the eligibility criteria and 47 articles were removed due to reasons outlined in Figure 1 below. The database manager RefWorks was used to facilitate the deduplication and screening stages. A second reviewer randomly selected and reviewed 25 (10%) articles for title/abstract screening and 2 (20%) articles for full screening. There was 80% percentage agreement at both stages. The discrepancies relating to whether the group intervention targeted offence focused behaviours/cognitions were resolved through discussions. A total of 10 papers were identified and included in the final review (see Table 1).

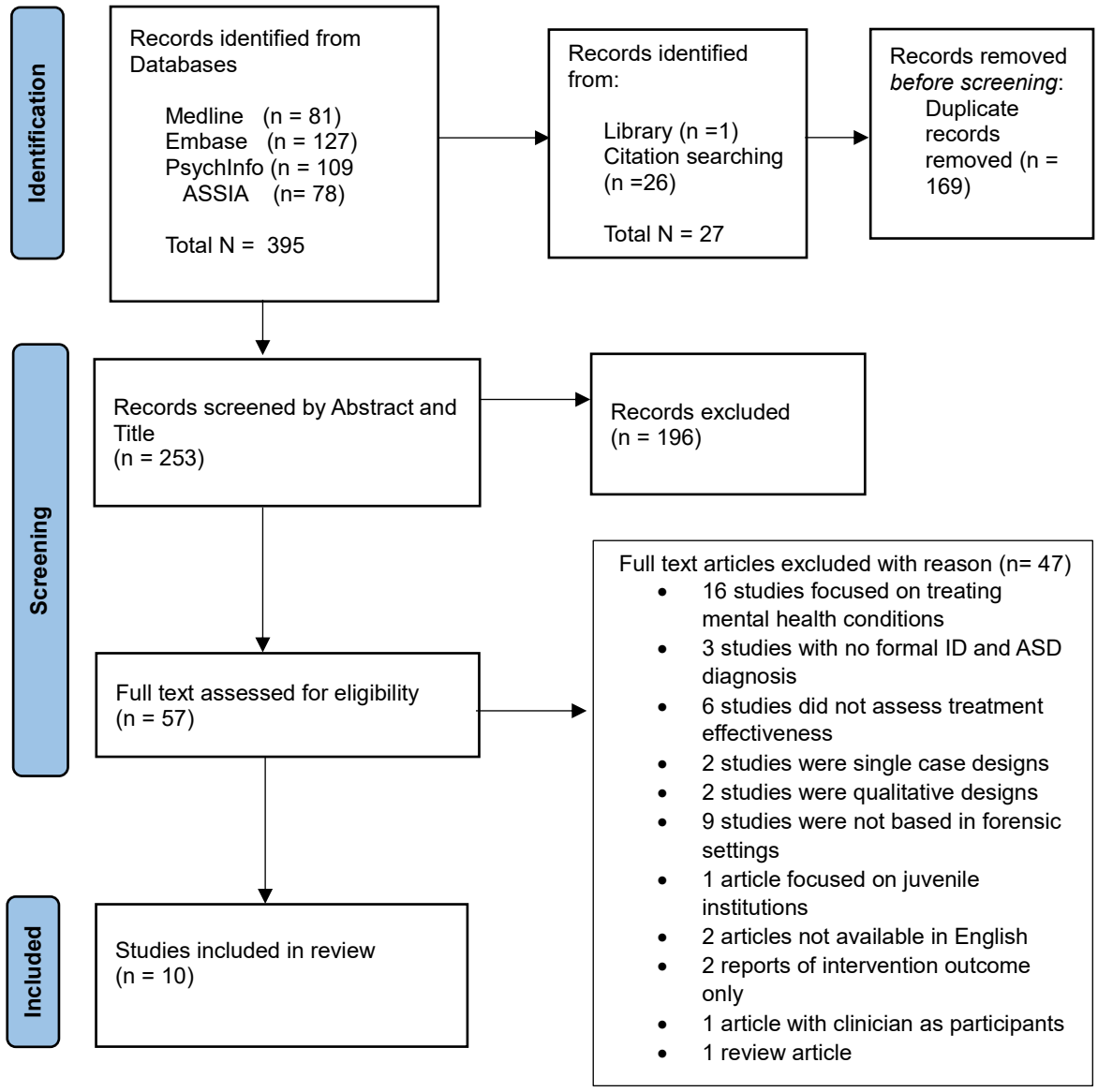

Figure 1. Prisma diagram outlining the search strategy

Data Analysis

A meta-analysis was not feasible due to the heterogeneity of the studies' results. Therefore a narrative synthesis was adopted (Popay et al, 2006). The process of synthesising involved extracting key characteristics and reviewing key findings of included studies, describing and collating similar findings, identifying patterns in the evidence base for 'treatment effectiveness' and creating a narrative account of the results. A quality appraisal analysis was conducted for each of the final included papers to address the credibility and validity of the main findings.

Results

Study characteristics

All studies used a quasi-experimental one group pre/posttest design, except study one, which used a quantitative non-randomized design (see Table 1 below). Eight studies focused on sexual offending (studies two; three; four; five; six; seven; eight and nine). Two studies focused arson (studies one; ten). The total number of participants in the studies was 265 and sample sizes ranged from 6 to 98. The sexual offending studies only had male participants. The arson studies had male and female participants. The mean age ranged from 33 years (study one) to 44 years (study three). Only three studies included participants' ethnicities which were, White British (studies three; seven) and White Irish, with other, Indian and Afro-Caribbean (study eight). The participants in nine studies were recruited from community based, low and medium secure services (studies one; three; four; six; seven; eight; ten). Three studies recruited from probation services and jail (studies two; five; nine). Six studies included participants with a formal diagnosis of ID and ASD (studies two; three; four; six; seven; eight) and the rest of the four studies included participants with an ID diagnosis only. A formal diagnosis was based on clinical judgements of clinicians in ID services using the standardised assessments such as the Wechsler Adult Intelligence Scale-third edition (WAIS-III and Vineland's adaptive behaviour scales (VABS)) (studies two; three; four; five; six; seven; eight; ten) and the Autism Diagnostic Observation Schedule (ADOS) (study two). For the arson offences studies, there were no definitions provided for arson, participants had convictions for arson which endangered life. For the studies that focused sexual offending, sexual behaviour engagement was defined as illegal by the criminal justice system (CJS).

Table 1: Study characteristics

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (Pre and Post treatment)	Key findings
1. Taylor & Thorne (2002)	United Kingdom Secure inpatients	Quantitative non- randomized. Recruitment: Low secure specialist learning disability National Health Service (NHS) Trust. N= 14 (8 men and 6 women). Age range: 20 - 48 years, mean age: 33.7 (SD 8.2 years). Diagnosis: Intellectual Disability (ID). Full scale IQ (FSIQ) range 64-84). Offence Type: Arson.	CBT group treatment. 3 groups: 1 female group (n = 6) and 2 male groups (n = 4 in each). 40 weekly sessions, twice weekly. Session duration: 2 hours. No drop out. No baseline and follow up	Psychological outcomes Fire Interest Rating Scale (FIRS) Fire Attitude Scale (FAS) The Goal Attainment Scales (GAS)	FIRS: (t (13) = 2.19, $p < 0.05$ and t (13) = 2.50, $p < 0.05$ respectively). 10 participants improved post treatment. Same for the FAS GAS mean scores showed improvements in: 'victim issues' (t (13) = 4.84, $p < 0.001$) (10 participants improved) 'emotional expression' (t (13) = 2.19, $p < 0.05$) (9 participants improved) 'understanding of risks' (t (13) = 3.79, $p < 0.005$). (9 subjects improved)
2. Craig & Stringer (2012)	United Kingdom, Community and probation services	Quasi-experimental Recruitment: Not mentioned N=14 (all men). Age range: 19 - 61 years, mean age: 35 years. Diagnosis: ID and 38% of the sample met the diagnostic criteria or ASD. Mean IQ: 73). Offence Type: Sexual offending	Group CBT intervention. 2 hour weekly sessions running for 14 months. Two facilitators: Consultant and trainee forensic psychologists Follow up at 3 and 6 months after treatment.	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome Sexual attitudes and knowledge assessment (SAK). Questionnaire on attitudes consistent with sexual offenders (QACSO)	No reconvictions at 12-month follow-up Post intervention significant differences were found for the QACSO total score (t . 4.119, p . 0.002) VESA (t. 3.491, p. 0.005). Improved understanding of victim harm and perspective taking skills.

				Victim empathy scale – adapted (VESA) Sex offences self-appraisal scale (SOSAS)	No significant differences for the SAK total score and SOSA total scores

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (pre and post)	Key findings
3. Heaton and Murphy (2013)	United Kingdom. Community and secure settings (varying levels of security)	Quasi-experimental N= 34 All men 85% White British Age range 22-68 years, mean age= 44 years, SD: 12 years Diagnosis: ID Mean full-scale IQ was 65 (SD 7, range 52–83), assessed by WAIS-III. ASD diagnosis: IQ low range Offence type: Sexual offence	Group CBT across 9 participating sites (13 groups in total). 2 hours on a weekly basis. Duration of Treatment: 1 year. Length of follow-up: 6 months per group (44 months) Follow up from Murphy & Sinclair (2009) study Male and female clinical psychologist facilitators 92% completion rate	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcomes (followed up 6 months or more post intervention) (SAKS) (VES-A) (QACSO) (SOSAS)	32% (n = 11) committed further sexually abusive behaviour (SAB) after 6 months follow up (n = 2) were convicted. 24% (n = 8) engaged in further SAB after 2 year follow up. SAKS demonstrated a significant enhanced sexual knowledge ($Z = -3.283$, $p < .001$) VES-A showed increase in victim empathy ($Z = -3.384$, $p < .001$). QACSO displayed a significantly less cognitive distortions ($Z = -4.229$, $p < .001$). Higher number of ASD individuals reoffended Clinicians assessed that severity of diagnosis made it harder to understand core therapy mechanisms and participants felt overwhelmed due to cognitive demands of intervention

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (pre and post)	Key findings
4. Hickman and Morris (2022)	United Kingdom. NHS secure service (low and medium)	Quasi-experimental N= 16 Mean age: 33 (SD: 12.02) range 21–60 All male inpatients detained under the Section of the Mental Health Act Diagnosis: ID, 2 men had ASD Mean FSIQ 62 (range: 50-72). Assessed as service criteria of meeting an ID Offence type: Sexual offence (Rape, contact sexual assault, indecent exposure) Recruitment: Brookland NHS	Brooklands Sex Offender Treatment Programme (BSOTP). 5 groups running in total Group CBT Weekly sessions lasting 4 hours Running for 12 months Facilitators are clinical psychologists, nurses od healthcare assistants 100% completion rate	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome QACSO Assessment of Sexual Knowledge (ASK)	No reconvictions for sexual offences. QACSO scores were higher pre-treatment (M= 22.63) and after treatment were (M= 19.69), not statistically significant (z = 1,509 and p = 3.28). ASK scores were higher after intervention, not statistically significant, (z = 2,276 and p = 0.58).
5. Lindsey and Smith (1998)	United Kingdom. Community-based treatment for individuals on probation	Quasi-experimental N = 14 (7 in each group) Group 1 mean age 35.7 years Group 2 mean age 32.8 years All men Diagnosis: ID Group 1 – Mean full-scale IQ 67.7 and Group 2 – Mean full-scale IQ 69.2. Assessed by WAIS-R Offence type: Sexual offence Recruitment base: not mentioned	Group CBT – both groups same treatment Sessions lasted 2.5 hours on a weekly basis. Treatment period length for 1 year or 2 years. Follow up was 2 years after probation finished.	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome QACSO	Further Offences: In group 1, 28.57% (n = 2) charged with sexual crimes. n = 2 suspected to reoffend In group 2, 0% reconvicted and 0% were suspected of reoffending. Improved cognitive distortions (QACSO) across all participant groups during treatment after a 2 year probation order

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (pre and post)	Key findings
6. Murphy & Powell (2007)	United Kingdom Community and secure services	Quasi-experimental N= 8 Mean age.38.8 years (SD.14.6) All men Diagnosis: ID, Mean FSIQ IQ.67 (SD.9, range 52–83) assessed by ID service Offence type: Sexual offence Recruitment: 2 south London boroughs	Group CBT 2 hour sessions, once weekly for 1 year. Two treatment groups (same treatment programme) Length of follow up 6 months	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome SABS SAKS QACSO SOSAS VES-A	0% sexual convictions reported. 3 men (37.5%) engaged further in SAB. These men had ASD. SAKS showed a significant enhancement in sexual knowledge ($Z = 2.31$, $p < .02$), VES-A which demonstrated improved victim empathy (VES-A – $Z = 2.31$, $p < .02$). QACSO scores showed significant improvements ($Z = 2.02$, $p < .05$) ASD severity hindered treatment responsivity as participants struggled to understand complex core CBT principles

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (Pre and Post)	Key findings
7. Murphy & Sinclair (2023)	United Kingdom Secure and community forensic settings	Quasi-experimental N= 98 White British Mean age: 35.7 (SD: 11.7) All men Diagnosis: ID and ASD as assessed by the ID service. 15 had ASD and 78 had ID only. FSIQ Mean IQ: 71 Offence type: Sexual offence Recruitment: Not stated	15 sites 50-week group CBT Facilitated by 2 mental health professionals.	Reoffending outcome Report by keyworker (clinical psychologists) via case note reviews. Psychological outcomes QACSO SAKS, SOSA and VES-A Only 4 drop outs	only 8 men (8%) with ID showing HSB in the follow-up period ASD engaged more in HSB than ID only: 21% of the men at 6-month follow-up. Overall significant improvements following treatment for all, in SAKS, VES-A scores and cognitive distortions: VES-A ($t = 4.2$ $p < .001$) SOSAS and QACSO scores ($t = 3.6$, and 8.2 respectively, both $p < .001$). Maintained at 6 month follow up ASD severity hindering effective treatment responsivity.

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (pre and post)	Key findings
8. Murphy (2010)	United Kingdom Community and secure services	Quasi-experimental N= 46 Mean age: 35.3 years, (SD: 12) All men Diagnosis: ID and ASD as assessed by the ID service using a WAIS-III. Mean full-scale IQ 68 (SD 7.6, range 52–83). (21% had ASD diagnosis) Offence type: Sexual offence Recruitment: UK NHS multisite SOTSEC-ID	13 CBT groups ran across 9 participating sites. 2 hours on a weekly basis. Group treatment running for 1 year running and follow up 6 months 8% didn't complete full treatment	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome SAKS VES-A QACSO SOSAS	8.69% (n = 4) engaged in further SAB post treatment. They had ASD. QACSO showed reduced cognitive distortions ($t = 8.39$, $p < .001$), and SOSAS ($t = 2.25$, $p = .030$). SAKS showed an enhanced sexual knowledge ($Z = 3.81$, $p < .001$) and VES-A showed improved victim empathy ($t = 3.30$, $p = .002$). During follow up: ASD individuals had lower QACSO scores. ASD characteristics, i.e. cognitive rigidity made it harder to generalise skills to broader contexts

Author and Year	Country and Setting	Design, sample characteristics and recruitment	Description and Methodology	Outcome measures (pre and post)	Key findings
9. Swanson and Garwick (1990)	Not specified Outpatient setting	Quasi-experimental N= 15 Mean age: 30, SD: 10.6 Diagnosis: ID, 8 participants with IQs 69 and < and 7 in the low-borderline range (IQ range 55) Offence type: sexual offending All men Recruitment: Forensic hospital, community and Jail	CBT Therapy group and interagency coordination. 90-minutes, once a week led by co-therapists. The mean length of participating in the group was 14 months (35 sessions)	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome Goal attainment Index: Scores out of 100, looking at frequency of sexual fantasy enjoyment and sexual urges. Higher scores indicated better outcomes.	Only 6 (40%) of the 15 clients have engaged in further offences post treatment Goal attainment scores: Mean: improvement in scores from 35.5 to 43.7.
10. Taylor and Robertson (2006)	United Kingdom Low secure forensic unit	Quasi-experimental N= 6 All females Mean age was 34.4 years (SD: 9.8; range 20–48 Diagnosis: ID Mean WAIS-R full-scale IQ was 74.0 (SD: 6.7; range 64–82)	Group CBT focusing on fire setting attitudes 2 hours sessions Twice-weekly basis.	Reoffending outcome Recidivism rates from police/probation/keyworker reports Psychological outcome FAS	Improvement on FAS and FIRS scores. 5 participant: No further offending for all

		Offence type: Convictions for, or a known history of fire-setting Recruitment: Specialist intellectual disabilities NHS Trust	40 sessions needed to work through the programme. Follow up: 24 months	FIRS	

Group intervention

All of the sexual offending studies, except study nine, utilised a CBT group treatment which was adapted for sex offenders with ID and/or ASD (studies two; three; four; five; six; seven; eight). Study nine used a group treatment based on the CBT framework. Seven studies described the programme content, which was modular and focused on victim empathy, sexual knowledge, and cognitive distortions, and relapse prevention plan development (studies two; three; four; five; six; seven; eight). For these studies the delivery and duration of treatment ranged from 2-4 hours on a weekly basis and treatment ran for 1-2 years and had follow up periods ranging between 3-6 months and 1-2 years after treatment (studies two to eight).

For the arson studies, the facilitators used the same standardised manual and the content included, fire awareness/education, antecedents and triggers associated with fire-setting, distorted beliefs with fire setting and relapse and prevention plans. The duration of the treatment was 40 sessions delivered on weekly basis and lasting 2 hours (studies one; ten). Follow up of 24 months post treatment was only completed for participants in study one.

In all of the studies the group intervention was facilitated by clinicians familiar with CBT such as clinical psychologists/nurses/psychiatrists.

Outcome data

All studies, except study one, used police/probation/keyworker reports to record changes in reoffending behaviours and core psychological outcome measures simultaneously to evaluate treatment effectiveness. For arson studies, the Fire Interest Rating Scale (FIRS) and the Fire Attitude Scale (FAS) were used, which explored fire related interests and excitement. The sexual offending studies used the QACSO and Sex offences self-appraisal scale (SOSAS), which captured cognitive distortions, the VES-A and the Sexual attitudes and knowledge assessment (SAK), which looked at sexual understanding.
Qualitative data concerning the interactions of core ID and/or ASD features in relation to group interventions, as assessed by clinicians, were recorded as factors impacting on treatment responsivity in four studies (studies three; six; seven; eight).

MMAT quality appraisal analysis

All of the included studies had high methodological heterogeneity, and the purpose of the current review was to identify and evaluate existing data/findings via a narrative synthesis approach, therefore, utilising the MMAT that could accommodate various study designs was sufficient.

Nine of the studies achieved an overall rating of 4* out of 5* on the MMAT criteria, which demonstrated a high-quality rating (see Table 2). These studies were representative of the target population and guidance on inclusion and exclusion criteria was provided (studies one; two; three; four; five; six; seven; eight; ten). All nine studies utilised outcome measures with high internal reliability and consistency. Previous research has demonstrated that the psychometric properties of the QACSO has remained constant across two ID offender population in regard to improving cognitive distortions, indicating increased cross validity (Lindsay et al., 2006). Although for study one it was not clear whether the outcome measures were appropriate for an ID population, therefore creating a bias in the interpretations of findings. The response rates for all nine studies were high ranging from 70 – 100% and all the participants who attended group treatment contributed to all study measures. All of the studies defined and accounted for the percentage of non-responders.

There was complete outcome data gathered pre and post treatment for all nine studies to evaluate the effectiveness of group interventions and was measured by a reduction in future offending and improved psychological treatment outcomes such as reduced cognitive distortions. All studies lacked a control/comparison group and there was a risk of ascertaining whether positive treatment outcomes were solely due to group CBT or confounding bias, therefore impacting on the validity of findings.

Only study nine had a low quality rating of 3*, as no attempt was made to define or categorise participants that didn’t respond and the study lacked a control/comparison group.

Table 2: Results for quality appraisal using the MMAT

	Quantitative Methodological Quality Criteria					
Author and Year	**Are participants representative of the target population?**	**Are measurements appropriate regarding both the outcome and intervention?**	**Are there complete outcome data?**	**Are confounders accounted for in the design and analysis?**	**During the study period, is the intervention administered as intended?**	**Rating**
1. Taylor & Thorne (2002)						**4***
2. Craig & Stringer (2012)						**4***
3. Lindsay & Smith (1998)						**4***
4. Murphy & Powell (2007)						**4***
5. Heaton & Murphy (2013)						**4***
6. Hickman & Morris (2022)						**4***
7. Murphy & Sinclair (2023)						**4***
8. Murphy (2010)						**4***
9. Swanson & Garwick (1990)						**3***
10. Taylor & Robertson (2006)						**4***

Yes **No** **Unclear**

Review questions

1. Identify studies that evaluate the effectiveness of group psychological treatment for reoffending behaviours amongst individuals with ID and/or ASD

The findings of all studies, except study one, demonstrated that group CBT had contributed to reducing further offending behaviours at 6 months, 1 or 2 years follow up. (See Appendix 25).

For the studies that focused on sexual offending, study two found that no reconviction reports were recorded for participants after a 1 year follow up, 12 out 14 (86%) participants were supervised by probation officers after treatment. Study three found that 11 out of 34 (32%) participants engaged in further sexual behaviours at 6 months follow up and after follow up of two years 8 of the 34 (24%) participants had reoffended. All of these men had an ASD diagnosis. However, only two had a conviction. Men showed both contact and non-contact offences, such as kissing and groping, however only 1 displayed 'serious' behaviour. Study six found that at 6 months follow up, no reconvictions of sexual offences were found for men that had ID only. No recorded sexual offence reconvictions were found after a 1 year follow up for participants who engaged in the Brooklands treatment programme (study four).

One study which ran two treatment groups for men with an ID only, found that after a 2 year follow up 2 out of 7 (29%) participants had reoffended in group 1 and were convicted, however no subjects in group 2 had reoffended (study five). A study revealed that at 6 months follow up after treatment 3 out of 8 (38%) participants had reoffended, which included non-consensual sexual offending, all three men had ASD (study six). Study seven revealed that 8 out 98 (8%) participants with ID only and 21 out of 98 (21%) of participants with ASD had engaged in further sexual offences at 6 month post treatment. A further study showed that at 6 month follow up after treatment, 4 out of 46 (9%) participants reoffended by engaging in further sexual abusive behaviours, which were non- contact in nature, indicating a reduction in the severity of behaviours, and 3 were men with ASD (Study eight). In study nine, 6 out 15 (40%) participants had reoffended by engaging in sexual behaviours at 1 year follow up.

For the arson offending studies, one study found no further reports, no incidents around fire setting behaviours for 5 of the 6 (83%) female participants with ID only (study ten). However in study one, the rates of reoffending were not specified for male and female participants.

Significant improvements in psychological treatment outcomes were also found for participants in eights studies (studies three; five; six; seven; eight; nine; ten). In four of these studies improvements in psychological outcomes were aligned with no further instances of reoffending at follow up (studies two; four; five; six; ten).

For the arson studies, study one found that 10 of the 14 (71%) male and female participants with ID only showed significant improvements on the FIRS and FARS scores, which indicated a reduction in interest in fire related situations and more healthy shifts in fire related attitudes. For study ten, there were improvements in the FIRS and FARS scores for all female participants with ID, however these were not significant for 5 out 6 (83%) participants therefore conclusions drawn about improved cognitive distortions may be tentative. However, for one participant, the scores did significantly improve demonstrating a healthy shift in cognitions. For study ten, none of the females engaged in further offending and this was aligned with improvements in FIRS and FAS scores. These findings demonstrated that participants had internalised core group therapeutic skills as there was a positive shift in their offence related cognitions and behaviours.

For the sexual offending studies, six studies found improvement in the QACSO scores for all participants at 6-12 month follow up after treatment, demonstrating less cognitive distortions (studies two; three; five; six; seven; eight), however in study four the improvement was not significant. Furthermore, study 8 revealed that men with ASD had lower QACSO scores compared to those without ASD. Improved victim empathy was found in four studies which used the VES-A at follow up (studies two; three; six; seven). Furthermore, four studies revealed significant improvements in SAKS scores at 6 month follow up (studies three; six; seven; eight). However, two studies showed no significant improvement in participants sexual knowledge at 6 months post treatment follow up (studies two; four).

For four studies, improved victim empathy gained post treatment did not align with reduced reoffending in a small portion of men as they continued to reoffend post treatment at 6 months and 2 years follow up (studies three; six; seven; eight). For example, in study three 8 out 34 (24%), for study six, 3 out of 8 (37%), for study seven, 21 out of 98 (21%) and for study eight 8 out of 46 (7%) men continued to reoffend.

All studies, except study nine, attracted a high quality rating of 4* and good internal reliability was indicated for studies that showed no display of reoffending that aligned with improved offence related cognitions and attitudes at follow up (studies two; three; five; six; ten). However all studies used a one group pre/post-test design that lacked a control/comparison

group. Therefore it was difficult to conclude whether a reduction in recidivism/positive psychological outcomes were actually due to group CBT or were influenced by confounding variables, such as the levels of community supervision received (studies three; six; eight).

2. To ascertain whether the severity and symptom profile of ID and/or ASD impacts on group treatment responsivity

Four studies demonstrated that a severe ASD diagnosis, indicated by IQs in the lower-mild range (50-70), presented as a barrier to effective treatment responsivity (studies three; six; seven; eight), which was qualitatively recorded by clinicians as a 'decreased internalisation of therapy' compared to participants with an ID diagnosis only with similar IQs ranges. Decreased internalisation of therapy was shown by a higher proportion of men with ASD engaging in further sexual offences, with a few of the men receiving convictions, despite improved victim empathy and cognitive distortions (studies three, six; seven; eight). Furthermore, study eight revealed that ASD characteristics, such as cognitive rigidity hindered treatment responsivity, which was indicated by significantly lower QACSO scores compared to those without ASD after a 6 month treatment follow up. Clinicians' assessments indicated that these men found it difficult to understand core areas such as alternative perspective taking. All four studies achieved a high quality rating of 4*.

Discussion

The first aim of the present review was to synthesize current research evidence to evaluate whether group psychological programmes can contribute to effectively managing recidivism in individuals with ID and/or ASD. The findings of all studies, except study one, revealed that group CBT had contributed to reducing reoffending risk as individuals either did not engage in further offences (studies: two; four; five; six; ten) or a reduced number engaged in further offending (studies: three; five; six; seven; eight; nine) at follow up of 6 months, 1 or 2 years. For example, study eight found that only 3 out 46 (7%) individuals had shown further sexually abusive behaviours after receiving group CBT at 6 months follow up. Data on reoffending pre/post group treatment was evidenced by police/ probation reports. In eight studies, improvements in psychological treatment outcomes were also found for participants at follow up (studies three; five; six; seven; eight; nine; ten). In four of these studies these improvements were aligned with no further instances of reoffending (studies two; four; five; six; ten). Six of these studies utilised statistical analysis to demonstrate significant improvements in scores (studies two, three, five, six, seven and eight). Seven studies found improvements in the QACSO, VES-A scores and SAKS scores, which indicated improved offence related cognitions and attitudes and enhanced sexual awareness and understanding in participants after receiving group treatment (studies two, three, four, five, six, seven and eight). Study one found similar statistically significant reductions for arson offending related attitudes in females with ID only, after receiving group CBT at 6 months follow up, however, a limitation was that researchers did not ascertain whether a reduction in cognitive distortions resulted in reduced arson reoffending.

Overall, the findings of all eight studies indicated that participants were able to internalize core CBT mechanisms such as taking responsibility of the harm caused by their offence, which motivated reduced or no further offending following group CBT. These findings provide support to Finkelhor's (1984) model, which highlights that an offender's cognitions/motivations can be seen as reliable pre-cursors of the likelihood of re-offending, and support clinicians' recommendations of utilizing two core measurements, as improvements in target psychological constructs can indicate a reduction in future offending.

A second aim was to ascertain whether the severity or symptomatic profile of ID and/or ASD impacted on effective treatment responsivity. Four studies revealed that individuals with severe ASD continued to show higher levels of reoffending when compared to individuals without ASD (studies three; six; seven; eight), for example, in study three 8 out 34 (24%) men with ASD continued to reoffend at 6 month follow up. An assessment by clinicians was that the cognitive demands of group treatment made it difficult to understand core therapy

mechanisms which may have impacted on motivation to change, resulting in less behaviour change (Prison Reform Trust, 2021). Furthermore, one study revealed that ASD traits, such as cognitive rigidity, hindered treatment responsivity, which was evidenced by lower QACSO scores, indicating less improvement in cognitive distortions, after a 6 month treatment follow up, compared to those without ASD (study 8). Clinicians inferred that these men found it difficult to understand core areas, such as alternative perspective taking, and struggled to generalise these skills to broader contexts.

All studies, except study nine, achieved a high quality rating and used psychological outcome measures, such as the QACSO, that had good cross validity (Lindsay et al, 2006). However, findings need to be interpreted with caution as all studies lacked control groups, which makes it difficult to establish whether reoffending rates would be higher/lower if no treatment was given.

Limitations

The review studies used report methods, such as police reports, which may be prone to data inaccuracies, and the measures of psychological outcomes (e.g. the VES-A) can be subject to social desirability bias, therefore affecting the validity of findings that were synthesised (Heaton & Murphy, 2013). Although research has suggested using two sets of outcomes to evaluate treatment effectiveness (Melvin & Murphy, 2017), the findings of four studies revealed that for individuals with ASD this was not the case as an increased level of victim empathy did not indicate a reduction in reoffending behaviours (studies three; six; seven; eight). A conclusion inferred is that the empathy deficits in ASD presentations could have presented as a barrier to internalising mechanisms of change, such as understanding the impact of victim harm, therefore negating treatment responsivity (Melvin & Langdon, 2020).

The included studies used quasi-experimental one group pre/posttest designs that permitted research to be conducted in a cost-effective and feasible way. However, the absence of control groups and the presence of external factors such as pharmacological treatments and controlled supervised settings (studies three; six; eight), could have given rise to the influence of confounder variables on treatment effects, therefore creating a false sense of association between intervention and outcome when no such effects actually existed.

All studies, except study seven, were based on small sample sizes, and only two studies included male and females, which can raise generalisability bias and impact on the validity of findings synthesised in the review.

Future implications

Four studies found that improved victim empathy did not align with reduced reoffending in men with ASD, therefore, evaluating interventions which specifically focus on empathy rather than it being as part of a broader intervention and improving clinical understanding of the mechanism of 'victim empathy' change may give rise to a more robust evidence-base for improving empathy in individuals with ASD. Moreover, one study's findings revealed that the cognitive rigidity associated with an ASD presentation hindered effective treatment responsivity, as indicated by a higher proportion of ASD men engaging in reoffending. This area needs to be further examined to gauge an insight to the factors that can increase the internalisation of therapy in ASD individuals, such as embedding appropriate treatment adaptations (Melvin, 2020).

At present no RCTs have been conducted in this area, possibly due to the potential escalation of risk in individuals being randomly allocated to a treatment as usual group. Consequently, there is still a need for scientifically rigorous research to establish whether Group CBT is truly effective in addressing recidivism risk in individuals with ID and/or ASD, as complications with safe transitioning into less restrictive settings can arise from delivering a treatment that is not known to reduce reoffending (Duggan and Dennis, 2014).

Conclusion

The findings of nine included studies demonstrated that group CBT had contributed to reducing sexual and arson reoffending risk in individuals with ID and ASD. Eight studies revealed improvements in offence related cognitions and attitudes and in four studies these were aligned with no further instances of reoffending. Furthermore, in four studies, a higher number of individuals with ASD engaged in further offending compared to those without ASD, as ASD severity and characteristics, such as cognitive rigidity, presented as barriers to effective treatment responsivity. Therefore, this review is the first to identify available research aimed at examining positive outcomes of group work in individuals with ID and ASD and various offending behaviours, and examining barriers to effective treatment responsivity in individuals with ASD. These findings can inform forensic services about current approaches that can support complex risk formulations and enable mechanisms of change in these populations. Consequently, future work in this area would benefit from i) scientifically rigorous research designs (e.g. RCTs) to ascertain that a reduction in future offending is actually due to group CBT and ii) a systematic evaluation of strategies that improve treatment responsivity in offenders with ASD. Examining these avenues can yield evidence to develop clinical guidelines on complex risk management in order to support a safe discharge of these populations into community settings.

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Chapter Two: Major Research Project

Delivering psychological therapies to service users with Autism Spectrum Disorder (ASD) and risk needs in Forensic settings: An IPA exploration of staff experiences

Prepared in accordance with the requirements for submission to the Journal of Psychology, Crime and Law (Appendix 26)

Plain Language Summary

Title

Exploring the experiences of clinicians delivering psychological therapies to individuals with Autism Spectrum Disorder (ASD) in forensic settings.

Background

Individuals with ASD may find it difficult to communicate and interact with other people. These difficulties can increase the risk of offending, leading a high number of individuals to come into contact with forensic settings, which are services for individuals with mental health conditions who are a serious risk to others. In these settings, psychological treatments are thought to be the most effective in managing future reoffending. They are delivered by psychologists and nurse therapists. However, ASD offenders find it hard to engage with these treatments and rates of offending remain high. Furthermore, research viewing the voices of clinicians around the reasons why ASD offenders struggle to engage in treatment remains limited.

Aim

The study aimed to explore the experiences of clinicians delivering psychological treatments to individuals with ASD in forensic settings to identify what is helpful and unhelpful to both clinicians and patients in therapy.

Method

Participants needed to have at least a year of experience in delivering psychological therapies to patients with ASD and had to be able to speak English fluently. The researcher distributed study leaflets to clinicians based at NHS forensic sites. Clinicians who were suitable were emailed a study information sheet and consent form explaining their rights to withdraw. Six psychologists and nurse therapists were recruited and interviewed. The interviews focused on participants' unique treatment delivery experiences. Interviews were recorded and voice files were transcribed and analysed using Interpretative Phemenological Analysis (IPA) to develop themes which captured the participants' journey of delivering psychological therapies.

Results

Participants' experiences of treatment delivery were detailed across one major theme and four smaller themes, 1) Delivering psychological therapies is a journey: *1a)* '*Questioning the suitability of psychological therapy', 1b) 'Encountering setbacks and doubting self' 1c) 'Overcoming setbacks and battling the inner critic'* and *1d) Feeling hopeful at present but uncertain about the future.*

Conclusion

Psychological therapy was seen as being suitable for ASD populations in forensic settings, if adaptation were made. Clinicians felt that certain ASD symptoms made it difficult for patients to fully engage in therapy, however using effective team working increased treatment engagement. Clinicians concluded that signs such as improved offence related thoughts meant progress had been made. However, they were uncertain on whether treatment could reduce future reoffending.

Abstract

Background

Autism Spectrum Disorder (ASD) specific characteristics may place individuals at higher risk of offending and there is an over representation of this population in forensic settings compared to the general population. Psychological interventions which target violence risk are considered to be best practice in forensic settings. However, these interventions are associated with poor outcomes in ASD offenders. Furthermore, literature exploring the experiences of clinicians delivering psychological treatment and reasons for poor treatment responsivity remains scant.

Aims

This study explored how clinicians working in NHS forensic settings, make sense of their experiences of delivering psychological therapies to people with ASD and violence risk.

Method

Six psychologists and mental health nurse therapists were recruited through purposive sampling. The research was qualitative and semi-structured interviews were used to explore treatment delivery experiences. Interviews were transcribed and Interpretative Phemenological Analysis (IPA) was used to identify key themes.

Results

IPA analysis yielded one Superordinate theme with four subthemes, 1) Delivering psychological therapies is a journey: *1a)* '*Questioning the appropriateness of psychological therapy', 1b) 'Encountering setbacks and doubting self' 1c) 'Overcoming setbacks and battling the inner critic'* and *1d*) *Feeling hopeful at present but uncertain about the future.*

Conclusion

This study highlighted the clinicians' view that psychological therapy was suitable for ASD populations if appropriate adaptations were made. Clinicians felt that certain ASD characteristics hindered treatment responsivity, however utilising a systems-based approach reduced this impact. Furthermore, clinicians perceived changes in offence related cognitions as markers of good treatment outcomes. However, the contribution of psychological therapies to the effective management of recidivism of ASD offenders remains unclear.

Introduction

Definitions and prevalence

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterised by social-communication impairments and restricted and repetitive behaviours (American Psychological Association (APA), 2013). Individuals with ASD are inclined to lead lives which involve highly maintained structures, therefore the majority are law-abiding citizens (Murphy, 2017). However, factors such as being a perpetrator of some form of offending behaviour (sexual offending or violence), might lead an individual with ASD to come into contact with criminal justice system services (CJS) or Forensic Settings (Murphy, 2017). Forensic settings are inpatient or community mental health services for individuals with complex mental health needs deemed to be at serious risk to others under civil legislation (Askola, 2019). The prevalence rates of ASD in community settings across the UK are estimated to be 1.2% and are even higher in forensic settings, ranging from 1.5 to 27% (Bosch et al, 2020). Comorbidity is particularly high in individuals with autism in forensic settings, including comorbid diagnoses of personality disorder (PD), than those without forensic histories (Newman & Ghaziuddin, 2008). Furthermore, prevalence studies across the UK have shown that 1 in 5 offenders with ASD also have comorbid Intellectual Disabilities (ID) (Bathgate, 2017).

ASD characteristics and risk behaviour

Recent research indicates that various factors may be associated with individuals with ASD being at risk of offending and being referred to forensic settings. These can include ASD specific characteristics such as reduced levels of empathy, increased social naivety and obsessional interests (Howlin, 1997). Clinicians working with individuals with ASD and risk behaviours often find it challenging to complete risk assessments and formulations due to the presence of specific ASD facets, complex comorbidities and assessments failing to capture the former (Al-Attar, 2019). This can result in detrimental effects on risk management and treatment responsivity of ASD offenders (Melvin, 2020).

Andrew and Bonta's (1990) Risk-Need-Responsivity (RNR) model has attempted to shed light on the challenge of poor treatment responsivity in offenders, as it aims to guide effective treatment of risk behaviours. The model states that the estimated risk of reoffending (recidivism), should determine the most appropriate environment aimed at reducing recidivism (Andrews and Bonta, 1990). According to the model, three principles need to be acknowledged in order to engage patients and manage risk behaviours: i) the risk principle, where the level of service is matched to the level of risk of recidivism, ii) the need principle, where offender needs are identified and addressed and iii) the responsivity principle, which

is determined by individual characteristics that may impact on intervention engagement, such as learning styles (Blanchette et al, 2006). Specialist psychological interventions that are incorporated in the RNR model in forensic settings have shown a 17% reduction in reoffending behaviours compared to non-treated offenders (Bonta & Andrews, 2007). Although there is strong evidence to demonstrate the efficacy of the RNR model in offender treatment programmes, the literature has not given insight to the model in relation to individuals with ASD in forensic settings, particularly the importance of focusing on the responsivity principle, as clinicians experience barriers to delivering effective treatment programmes that target complex risk needs and the lack of responsivity to treatment remains high in this population (Melvin et al, 2020). Therefore, one of the objectives of the present study was to address this critical gap and inform specialist psychological interventions of factors which may improve treatment responsivity and reduce recidivism in offenders with ASD.

Treatment and management

Routine Cognitive Behavioural Therapy (CBT) programmes are considered best practice for managing mental health and risk needs (National Institute for Health and Care Excellence, (NICE) 2011). These programmes are applied in general community mental health settings and forensic settings by psychologists and therapy trained mental health nurse therapists (MHNT) (Esan, 2015). The additional focus of the latter interventions are to reduce recidivism with programmes also being available to offenders with ASD (Dein & Woodbury-Smith, 2010). Randomized control trials (RCTs) have shown the effectiveness of utilising a CBT approach with individuals with ASD, where improvements in social impairment and reduction in anxiety levels have been found after a one year follow up in general community settings (Maddox, 2017). Similarly, a meta-analysis review has revealed that sexual offenders, including those with ASD diagnoses, demonstrated a 37% reduction in recidivism after receiving group CBT (Losel and Schmucker, 2005).

Although CBT interventions have been considered best practice in reducing recidivism in individuals based in forensic settings, there are indications that these interventions on a larger scale are still associated with poor treatment responsivity in offenders with ASD (Schmucker & Losel, 2008). Furthermore, an ASD diagnosis is correlated with an increased likelihood of violence risk and clinicians experiencing barriers to effective treatment responsivity and not being able to address ASD specific needs (Heaton & Murphy, 2013). Melvin et al (2020) conducted a qualitative study to explore the issue of poor treatment responsivity by exploring the subjective experiences of staff delivering group CBT to individuals with ASD and a history of sexual offending. Clinicians' reports indicated that ASD

specific characteristics, such as deficits in empathy and cognitive inflexibility, impacted on therapeutic processes and resulted in poorer treatment responsivity. Furthermore, they reported a lack of ASD awareness training for clinicians hindered effective treatment facilitation. Similarly, a forensic mental health review of clinicians' perspectives highlighted that currently forensic settings across Scotland should have access to a higher proportion of interventions with special adaptations embedded for people with ASD, such as a communication style that enables clients to effectively engage in interventions in order to help with transitioning safely back into the community (Independent Review into the Delivery of Forensic Mental Health Services, 2021).

Although there is a consensus shared amongst clinicians regarding the inability of autistic individuals to perspective take, the deficits in empathy has bi-directional implications for treatment giving rise to the 'double empathy' phenomenon, which has been described as non-autistic individuals experiencing similar communication and social difficulties when interacting with individuals with autism (Milton, 2012). Research has demonstrated that clinicians can disproportionately underestimate emotional intelligence and trust with their autistic patients, which can adversely affect rapport development in the initial stages of treatment therefore impacting on the quality of treatment responsivity for patients (Jones & Botha, 2023). Despite these developments, critical research gaps still remain in the literature in the reasons for poor treatment responsivity in ASD offenders and the rates of recidivism remains high compared to the general population. In order to bridge this gap, the voices of clinicians need to be heard to provide insight to forensic services of factors which enhance treatment responsivity and therapeutic outcomes for this population (Bosch et al, 2020).

Review of the literature indicated that the following gaps remain: the need to adapt psychological treatments to manage risk behaviours in individuals with ASD, the importance of clinicians' awareness of ASD characteristics impacting on treatment facilitation in forensic settings (Melvin et al, 2020) and views of clinicians on barriers to treatment responsivity (Oates, 2020). Therefore, the rationale for the current study was to explore the interpretations of clinicians experienced in delivering specialist psychological interventions to gain insight to the appropriateness and suitability of these interventions for people with ASD who offend and an understanding of factors which enhance ASD specific treatment responsivity. This insight is necessary in identifying clinicians' support needs and enhancing positive therapeutic outcomes (improved mental well-being and reduced recidivism) to enable safe community transition for this population.

Aims of the current study

The aim was to explore the subjective lived experiences of clinicians delivering specialist psychological treatments to people with ASD and offending history in forensic settings, in order to identify areas of need and barriers to treatment responsivity. Therefore, the study explored the following areas:

i) The clinicians' perspectives on the suitability of specialist psychological interventions in managing mental health needs and risk behaviours in people with ASD based on their experience, ii) their perspectives on how ASD characteristics influence the therapeutic process and responsivity iii) the clinicians' perspectives on subjective barriers experienced when delivering these treatments and iv) their experiences of strategies implemented in order to overcome these barriers

Rationale for study design

In line with the study's aims, a qualitative design based on the Interpretative Phenomenological Analysis (IPA) framework (Smith and Nizza, 2021) was selected. The rationale for using this design was to explore in depth the clinicians' journey of delivering psychological therapies to ASD populations in forensic settings, as their voices remain unheard in current literature. A core principle of IPA called the double hermeneutic enabled the researcher and participants of the present study to explore the phenomena of interest simultaneously, with the researcher attempting to make sense of the participants' sense making. Therefore, in using IPA the study attempted to provide an understanding of the experience of barriers that hinder effective treatment facilitation and subjective strategies used by clinicians to help improve treatment responsivity in this complex population. It would have been difficult to explore the above phenomenon with other qualitative methods such as thematic analysis, as this methodology would not have provided the researcher the luxury to engage on a deep explorative and interpretive level with the participant. Furthermore, quantitative designs were disregarded simply due to the inability of the methodology to capture the emotional elements of what an experience may feel like for the participant.

Method

Design

The study utilised an inductive qualitative design guided by the IPA methodology as presented by Smith and Nizza, (2021). Participants were recruited using purposive sampling in line with IPA principles of selecting a homogenous sample that could communicate their experiences of a shared phenomenon of treatment delivery to an ASD population in forensic settings.

Inclusion and exclusion criteria

Participants were required to have a minimum of one year experience of delivering specialist psychological interventions, (such as CBT), to clients with ASD and risk needs on either a group or one to one basis and in forensic inpatient or community settings. It was agreed with the field supervisor that this would ensure that clinicians had sufficient clinical contact, necessary for building experience of delivering specialist psychological interventions. Participants had to be proficient in English.

Recruitment procedure

Ethical approval was obtained from the Medical Veterinary and Life Sciences Research Ethics Committee at Glasgow University and management approval from the NHS Greater Glasgow and Clyde (GGC) forensic department (Appendix 7 and 8). Subsequent to the necessary ethical and management approvals, the researcher liaised with the field supervisor in attending routine multidisciplinary team meetings to discuss the aims of the study and distributed study leaflets across forensic inpatient and community sites (Appendix 12). Clinicians who expressed an interest in participating contacted the researcher via NHS-to-NHS email. The researcher responded via email to give an overview of the study aims and rationale using the participant information sheet (see Appendix 11). Participants were then invited for an interview at an agreed date and time at the relevant forensic site.

Participants

The projected sample size of six participants was informed by the recommendations of Smith and Nizza, (2021) for IPA research in order to ensure a small homogeneous sample from which ideographic and rich interpretative accounts could be derived. The participants comprised of five NHS Clinical Psychologists and one MHNT. Two participants were recruited from a low secure forensic learning disability community team and four participants were recruited from medium secure inpatient settings. All of the clinicians used an individual CBT therapy model and three clinicians used additional models such as cognitive analytical therapy and compassion focused therapy, based on pre-determined therapeutic protocols. Participants had varied levels of expertise in delivering the above interventions ranging from 2 to 20 plus years. The participants' age ranged from 35-54.

Research procedure

The researcher met in person with the participants on an individual basis to conduct interviews. Written consent was gained prior to the start of the interview (Appendix 13). At the initial stage of the interview the researcher collected demographic data (participants' age, gender, job role, years of experience and psychological therapy/modality in which they

have experience in delivering with the focal group) (Appendix 16). The interviews were recorded on an encrypted Dictaphone and took place in a quiet and confidential room at the relevant clinical site. Duration of interviews ranged from between 48 to 95 minutes. The interviews were semi-structured and the researcher used an interview guide with key questions and prompts which allowed for flexibility and facilitation of discussion led by the participant (Appendix 14). Interviews were then transcribed verbatim by the researcher (Appendix 18). The transcripts were analysed to develop key themes using the IPA framework (Smith and Nizza, 2021)

Ethical considerations

Prior to the interview, participants were informed of local counselling services in case they experienced any distress during the interviews (Appendix 15). They were also informed of local NHS procedures in relation to risk disclosure, albeit given their professional roles and experience they would have been aware of these caveats through their routine practice. Consenting procedures were detailed in the participant information sheet and were reiterated verbally prior to the interview. Participants were made aware of their rights to withdraw at any point and that their data would not be used in the final analysis if they chose to withdraw. There was no participant identifiable information used from the point of interview and pseudonyms were used for participants and interview transcribing took place without identifiers. Participants were informed that identifiable data was stored securely and not included in transcripts. Only the researcher had access to the study materials and equipment such as completed consent forms, demographic data, interview questionnaires and Dictaphone and these were securely stored in a cabinet at the relevant forensic site during the data collection phase. Interview voice files were saved securely and backed up regularly on a password encrypted laptop.

Data analysis

Interview transcripts were analysed in line with Smith and Nizza's (2021) IPA framework. The researcher read the transcripts on several occasions before adding exploratory comments on important areas. This was followed by developing experiential statements for each transcript, which succinctly captured the participant's meaning of the experience (Appendix 19). The next stage involved experiential statements being clustered together to produce personal experiential themes (PETs) for each transcript which looked at meanings of experiences at a deeper level in the context of the research questions (Appendix 20 and 21). The last stages consisted of doing a cross-case analysis of the PETs in order to capture similarities and differences across ideographic meanings to develop Group Experiential

Themes (GETs) (Appendix 22 and 23). These were then collapsed further to develop one superordinate (overarching) theme, these are central frameworks that summarised participants' experiences collectively, and four subordinate (sub) themes, which focused in depth on notable specific elements for each participant (see Table 1 below). A triangulation approach was adopted in order to address credibility and as recommended by Smith et al (2009), which involved two additional reviewers who independently reviewed two transcripts and identified experiential statements/themes. See figure 1 below.

Figure 1. Summary of the IPA data analysis process

Researcher positionality and reflexivity

One of the main principles of IPA is the double hermeneutic and this process is prone to researcher bias (Smith & Osbourne, 2008). The researcher was a female trainee clinical psychologist who had been employed for a limited time at one of the forensic sites. They had exposure to the patient staff dynamics in ward settings, therefore reflexivity was focused around potential biases occurring around the researcher's previous experiences of working with a forensic population. An example of this was the possibility of the researcher's prior knowledge of psychological interventions in forensic settings influencing their interpretation of participants' narratives of challenges encountered during treatment delivery. The researcher managed potential biases by keeping a reflective journal, which facilitated the route of 'bracketing off' previously held expectations and beliefs (Appendix 17). Potential biases were discussed and reflected on in supervision to strengthen credibility of themes derived.

Results

One superordinate theme and four subthemes were developed which captured the clinicians' narratives (see Table 1).

Table 1 Superordinate themes and subthemes

Superordinate themes	Subthemes
1. Delivery of psychological therapies is a journey	*1a. Questioning the suitability of psychological interventions* *1b. Encountering setbacks during therapy and doubting self* *1c. Overcoming therapeutic setbacks and battling the inner critic* *1d. Feeling hopeful at present but uncertain about the future*

An in-depth interpretative description of each theme, supported by participants' quotes is provided below.

1. Delivery of psychological therapies is a journey

The participants' narratives below show that the experience of delivering treatment to offenders with ASD felt as though it was a challenging journey filled with feelings of uncertainty and self-doubt.

1a. Questioning the suitability of psychological interventions

All of the participants raised questions around the suitability of psychological therapy models, predominantly the CBT model, for patients with ASD and offending needs. Participants used language with ambivalent undernotes such as:

"I don't think we can pick up a text book and just deliver it, I don't think it works". (Olivia)

The above phrase could have demonstrated that Olivia felt that protocol driven standardised psychological therapy models may not be suitable in addressing her patients' specific needs. Jane further reflected on what therapy actually meant for her patient:

I've found that the patients that I've worked with [pause] have found it quite difficult to come up with sort of 'what do I want out of therapy?' 'What goals do I want?' ' So yeh I think patient's do find that quite tricky, initially. (Jane)

Jane's account could have demonstrated that she felt that her patient may not be able to fully comprehend the true purpose of therapy due to her patient's ASD diagnosis. The words used to convey the participants' views around suitability almost implied a sense of being in a state of mental limbo, of questioning CBT suitability whilst simultaneously feeling compelled to use it. The excerpt below provides a succinct account of how suitability is viewed in the context of the patient's diagnosis:

"So I'm saying he is, he's not appropriate for psychological therapies at this point. Why do I think that? And I, I struggled with that a bit, um, because is it just the fact that his ASD that I think that, or is it there's other things going on that make it difficult for him." (Michaela)

The above account suggests that for Michaela it was not necessarily the ASD diagnosis that made her question and later choose not to go ahead with the psychological therapy model but more so other factors that were co-occurring, as detailed by a second account:

"Um he had paranoid schizophrenia but that was in combination with ASD as well as a mild intellectual disability and he had lots of experience of people trying to engage him in psychological therapies or any level of treatment and it really was not working well at all." (Michaela)

Michela's observation above suggests that she felt that due to the presence of the severity of her patient's comorbid diagnoses the therapy model was not able to meet the complex needs of the patient. Similarly, Gemma voiced her perspective on assessments around risk:

"There's the armadillo risk assessment which I think is one of the ones that is very much focused on on LD. Umm we don't use it in this setting we're very much as HCR-20. Um, some of the headings might not always sort of translate well to an a LD/ASD population, I always think of um history of employment, something like that, which um [pause] a lot of the patients we see might not and that plus mental health". (Gemma)

According to Gemma, the challenge of unsuitability may have been top down in nature, initiating from pre-therapy risk assessments, where she felt the headings were unsuitable for ASD populations, which then may have had an impact on clinicians delivering psychological therapies, leading them to question their formulations around CBT suitability.

The initial views of all of six participants around the appropriateness of utilising CBT were converged. This theme provided an avenue for further contemplation on whether their judgements remained fixed throughout interviews or were amenable to change.

1b. Encountering setbacks during therapy and doubting self

This subtheme reflected the subjective barriers and challenges that participants experienced; the interference of ASD characteristics with therapeutic engagement, the emotional impact of delivering therapy, and a lack of adequate ASD specific training.

The language and scenarios reflected on by participants demonstrated that certain ASD characteristics made it more difficult for clinicians to build a strong rapport during therapy, hindered therapeutic facilitation and impacted negatively on patients' ability to fully

internalize therapy. Michaela recounted the challenge she experienced in one of her sessions with her patient:

"*I found it difficult to build a relationship with him". (Michaela)*

Similarly Jane reflected on attempting to use standardised Socratic questioning and how this experience was for her:

"Erm because often [pause] yeh often I guess we're trying to use like Socratic questioning into trying to guide patients to think about things in a less black and white and concrete way. That doesn't always work so well with patients with ASD". (Jane)

The excerpt demonstrates that Jane felt that it may have been difficult to use Socratic questioning in a generic way as she felt like she was coming to a halt with her patient. The essence of Socratic questioning was the ability of viewing perspectives from an alternative lens, therefore her experience highlighted that her patient may have struggled with the concept of considering the alternative more helpful perspectives in the context of their offence.

Gemma recalled an instant when a patient had not been charged as a result of lacking capacity:

"And returning to the ward with [pause] I guess a sort of happiness that they're not being charged and maybe not having that social awareness of the person who you've just assaulted." (Gemma)

For Gemma it was clear that she had felt perplexed at the decision instigated by the authorities in the Criminal Justice System (CJS) as she held the view that:

"I think the consequences of the criminal justice system do need to be similar. I think you obviously need to make adaptations umm for particular circumstances but if you and I went out and assaulted someone we're expect to get arrested." (Gemma)

Gemma strongly felt that consequences should be active for individuals with ASD as well as those without although with adaptation embedded for the former. Gemma felt that as no action was being implemented from top down authorities the end result was her patients'

inability to empathise with their victims being reinforced therefore making it harder from them to be have the *social awareness* of the detrimental impact of the offence on their victims.

Throughout out the interviews it became evident that the process of delivering psychological therapies to patients with ASD felt emotionally challenging. Clinicians used language such as:

"Sometimes feeling a wee bit stuck as well as the patient". (Jane)

The above statement demonstrated Jane's frustrations at therapy coming to a stall. An interesting interpretation captured here was the countertransference processes of *'feeling stuck'* occurring between Jane and her patient. Jane's experience had given insight to how emotional reactions were being bounced back and forth between patient and clinician therefore possibly hindering therapy progress. Emma described the nature of the dynamics forming between herself and the patient in the confinements of the therapeutic space:

"It's almost umm [pause for 2 seconds] slightly de-humanizing views sometimes that this person is umm completely unable to connect to humans. Umm almost like there's some sort of type of other. Umm but I think you feel hints of that, sometimes you don't feel that same rapport and connection that shared communication. Umm and I think we feel that when we don't' have that therapeutic relationship, well we don't feel like we can exploit it and make use of it and we don't maybe feel umm [pause for two seconds] as comfortable in the room". (Emma)

Emma reflected on the key words that clinicians used to describe autistic patients such as '*de-humanizing'* and *'unable to connect to humans'* to convey the understanding that although there is slight animosity felt from her side, she simultaneously recognizes that there is some truth apparent in the views held by the clinicians as she had actually found it arduous to form a meaningful connection with her patient during therapy due to certain ASD facets. This then led her to feel restricted in her communications, perhaps then causing her to feel a bit emotionally depleted and avoidant.

Michaela gave a self-reflection of how she perceived her role as a therapist:

"I think that's the kind of therapy you just feel I'm totally rubbish at my job. Like, yeah. So just feeling like, um, as I said, hopeless was the kinda main, the main thing". (Michaela)

The above account demonstrated that at points Michaela felt that treatment progress was taking longer than she had anticipated and experienced hitting therapeutic snags which made her doubt her own abilities as a clinician. The powerful emotions elicited are two-fold as she perceived herself as '*rubbish'* which led her to feel hopeless, possibly indicating that she may have started to avoid and lose faith in her ability to deliver treatment to an adequate standard. This was a common sentiment conveyed by all of the participants throughout interviews.

Participants also recounted the developmental opportunities they had, and for all of them it had been a steep learning trajectory. Emma reflected on her experiences of receiving ASD specific training:

"My diagnostic training that I had to train me in the ADOS was definitely helpful in terms of thinking about how somebody's difficulties might present. It wasn't [pause] helpful enough to sort of guide you through therapy, so I think sort of therep therapeutic things are helpful, or with a mind to delivering therapy training that has a mind on delivering therapy [pause] would be useful." Emma, 897-900

From Emma's account one can infer that the ADOS training she completed helped broaden her theory based knowledge around ASD and how the condition presented with impairments that lay on a spectrum. However it was clear that she felt that there were significant gaps present in implementing theory into practice as the training didn't cover core mechanisms of therapy delivery. Similarly, Michaela held the view that it was critical to *skill up* clinicians:

"So I think there's a need to kinda skill people up and everybody that's working within services with more information around ASD and how to work with people with that diagnosis". (Michaela)

The above excerpt implies that Michaela felt it was necessary for forensic services to take a more proactive stance in facilitating training provision that focused on helping staff communicate and interact more effectively with patients with an ASD diagnosis. Jane's feelings chimed with Michaela's views in regards to the quality of ASD specific experience she possessed:

"I didn't have that much experience of ASD. Erm a little but here and there but [pause] not in depth experience. So yeh that's definitely been, that does impact on you because obviously it impacts on your confidence in what your delivering [laughs]." (Jane)

Jane has indicated that her confidence to deliver therapy to her patients with ASD may have faltered due to her limited ASD experience which may then impact on the quality of the therapeutic relationship being built with her patients.

1c. *Overcoming therapeutic setbacks and battling the inner critic*

This subtheme described the strategies that participants used to overcome the above barriers, such as embedding adaptations to therapy, using supervision to gain confidence in delivering therapy and having a proactive attitude to developing ASD specific competencies.

Throughout the interviews participants consistently voiced their beliefs about adapting psychological therapies. Gemma reflected on her experience of embedding adaptations to her therapeutic models:

"It's important that we try and reduce any type of guilt or shame that come from any sort of reading or writings of or cog cognitive difficulties and I guess therapeutically trying to create a very safe space". (Gemma)

From Gemma's account her adaptations went beyond a basic practical and sensory context and moved to a more profound and deeper level of adapting. She acknowledged that her patients may experience pre therapy guilt around their capacity to process and communicate information due to their ASD diagnosis and ensured providing a safe space where they didn't feel judged or ashamed and where they engaged better. Michaela reflected on a situation which involved both staff and patient:

"One of the lovely examples he gave me was that in ward environment there was a nursery station and patients aren't allowed to go into the station, they can come to the door but they aren't allowed to go in to the nursing station, that was the rule, but there would be patients, depending on staff on the day, they would be slightly in the room, um and he would bring that 'well there's a rule that they're not supposed to be in the room and there's patients in the room'. That was really helpful for us to know that our neurotypical inconsistency was really distressing for him". (Michaela)

From the above passage it was clear that Michaela valued her patient's open dialogue as it helped her gain insight to how her patient's distress was externally influenced by staff using

an inconsistent approach which was interfering with the their therapeutic relationship. This led her to facilitate the below approach:

"So I was able to feed that back to the team.. Um so were able to change that element of the ward environment just to to suit him and then that was a rule it was being it was being followed. Um and that was helpful for him and staff because they started to build a level of trust". (Michaela)

It is clear that Michaela bought psychological mindedness to the wider team where she communicated the understanding of external problematic factors that were maintaining her patient's distress. This led to promising outcomes, where a level of trust had developed between the patient and staff and the team gained an enhanced understanding of the significance of utilising a consistent approach.

Strong views were held by all six participants that clinicians needed to move beyond individual therapy and integrate a system based approach:

"So kind of getting the community team on board with supporting him with more of those things is actually helpful in managing any risk that he might pose". (Kate)

According to Kate advocating a team approach provided a more powerful and person centered approach that complimented therapy in managing recidivism risk.

Overall, it was evident from participants' views that they had utilised a more than standardised approach to adapting when it came to better engaging patients as they had considered and implemented adaptations through a thoughtful lens.

In all of the interviews, participants openly described the strategies they had used in order to battle the inner critical voice of not being good enough at their job. Gemma reflected on her experiences of supervision:

"Um who you can bring this stuff to and say [pause] 'you know that didn't go well today. Can you help me think about why or what I could do differently again, um in the future?" (Gemma)

For Gemma, knowing that she had the opportunity to liaise with other experienced staff in supervision helped her acknowledge her competency limits and in doing so felt more

confident to explore additional recommendations for her patient. The exploring of additional clinical opinions could have enhanced her own understanding of her patient, therefore enabling better engagement.

Kate recalled the instance where she questioned treatment outcomes:

"*I suppose that's how I almost make sense of it is reminding myself that though this feels like a tiny change for me, that's making quite a big difference to them." (Kate)*

For Kate, a small change was interpreted as something not worthwhile, however when she was able to view it from the lens of her autistic patient, the small change appeared to hold more value as a '*big difference'* was made. Jane took a slightly different turn in utilising strategies:

"So it's more about us looking up stuff that might be helpful and sharing that with our colleagues or erm flagging it up to our line managers, that's something that we'd like to attend and building that into your PPD and stuff like that as well." (Jane)

For Jane it was a matter of staff needing to be proactive in liaising with their seniors to highlight gaps that were present in their training and knowledge in the context of ASD and offending. It was clear that Jane's views also conveyed the importance of effective team working as she used phrases such as *sharing with other colleagues,* which showed that for Jane it was a team learning approach that was more helpful to her practice rather than an individual mentor approach.

1d. *Feeling hopeful at present but uncertain about the future*

Participants highlighted the instances where they had observed a notable shift in their patients' thoughts and behaviours during and after treatment which elicited feelings of hope for treatment progress.

Emma reflected on her experience of being the observer:

"He's definitely got more empathy now um towards his um victim, which was a family victim Umm [pause for 1 second] he's definitely able to sort of say this was his you know this was the perspective of this family member that's why they acted this way. Um it was really difficult

for them, I recognize that now. Um yeh he can he can definitely deal with that. Your making me feel a bit better about these interventions that I've been slogging away at! [Laughs]." (Emma)

For Emma, the increase in her patient's empathy level towards their victim was quite striking as the process of recognising that a change had been made was gradual and almost unbelievable. This inference was grounded in her laugh at the end of the passage which conveyed a feeling of awe in regards to the outcome. She also felt a sense of reassurance about the clinical utility of her intervention as indicated by her phrase, *'you're making me feel a bit better about these interventions!' (Emma).* Michaela's account below sheds a similar light on her observations of her patient:

"But through his psychosis, this had turned into, 'if I kill somebody, the world would be a better place'. And he was able to, this took a very long time. He was able to appreciate that that didn't make any sense. And that was, that was a big deal for him that I, because for a long time he denied the offenses completely". (Michaela)

In Michaela's experience the patient gradually developed the ability to recognize that the act of '*killing somebody'* held no meaning for him anymore. This was a profound moment for him in therapy as it instigated positive and more balanced cognitions to emerge, such as developing the awareness that he had actually offended.

Olivia reflected on her patient's ability to express gratitude:

"Yes! I would say that umm um [pause] someone I'm working with just now, is so grateful for [pause] you know [pause] of therapy and the assistance!' I do. I think there is [pause] I have found in the past that there's some re resistance to therapy in the initial stages". (Olivia)

For Olivia, noticing the shift in her patient's attitude from initially resisting therapy to later finding value in it was quite astounding. It can be understood that this instance of gratification from her patient had provided Olivia with a meaningful insight as she was able to acknowledge her patient's prosocial behaviour coming to the forefront.

All of the participants held the views that the above shifts were indicators of treatment progress.

However, participants couldn't help but feel a lingering sense of uncertainty around the effectiveness of treatment in managing future recidivism in their patients. Kate's account captures in essence the meaning she had attached to an incident:

"He wasn't really given that much opportunity for testing out, um sadly he died. So um he he didn't really get to that point, so it didn't feel like there was a satisfactory outcome." (Kate)

According to Kate, she wasn't able to conclude whether there had been any opportunities to evidence effectiveness due to her patient's untimely demise. Although the unfortunate situation was out of her control she still interpreted the outcome as unsatisfactory. According to Kate it may have been too late to carry out a follow up and she possibly felt that putting an earlier plan of treatment monitoring may have been beneficial. Olivia reflected on her perspective of treatment follow up in the service that she was employed:

"I think in order to evaluate how effective therapy's been, we have to [pause] continue to see their the effect that it's having, the impact that it's having on the individuals and those around them. So I don't' um [pause] I don't think that's something we do particularly well um [pause] here". (Olivia)

It was clear that there were hints of frustration being expressed by Olivia at the lack of treatment follow up for her patients. Her passion of follow up was conveyed as she felt that it was vital to have a monitoring process to make sense of treatment effectiveness. Similarly Jane reflected on her patients' generalisability of behaviours:

"One barrier is sort of taking the things that the patients learning in therapy and helping them use that or those skills in different situations can be quite tricky I think. Because here I guess, [pause] I guess in a lot of services you don't have much opportunity to get out of the office as such or get out of the therapy room and do things that way. Erm so yeh it can be kinda tricky sort of and patients with ASD obviously struggle to kinda [pause] apply things to different situations". (Jane)

Jane's reflection revealed that she too felt uncertain about the efficacy of the treatment in managing risk out of office, as she wasn't able to record any changes in her patients' behaviour. It was possible that Jane was wondering whether her perception of her patient's lack of generalisability of offence focused therapy skills was being maintained as a result of scarce opportunities of follow up to test whether skills had been internalized.

Discussion

The present study aimed to use an IPA approach to attempt to provide a rich and explorative insight to clinicians' experiences of delivering psychological therapies to individuals with ASD and offending behaviours. The clinicians reflected on psychological models, with individual CBT being the predominant one that aimed to target and manage various complex offending needs such as violence and sexual offences. Overall, one superordinate theme and four subthemes emerged which captured the essence of the processes and dilemmas involved in treatment delivery. Initially, clinicians felt ambivalent about the suitability of CBT for their patients, as the presentation of ASD alongside comorbid diagnoses such as psychosis made them question whether their patients would respond appropriately. Case reports on individuals with ASD have shown similar findings where individual CBT treatment approaches have been associated with poorer outcomes (Milton & Tantam 2002). This ambivalence then led onto clinicians reflecting on barriers that caused setbacks and impeded the therapeutic process. A key barrier highlighted was the interference of ASD characteristics during the stages of internalizing therapy. Clinicians described facets such as rigid and concrete ways of thinking and deficits in empathy. It was evident that the clinicians' views demonstrated that the triad of impairment found in ASD presentations made it challenging for patients to understand the function of offence focused work as outlined by Gemma's account of her patient's lack of remorse felt at the detrimental impact of the offence on the victim. Research in this area has provided support for this theme as ASD characteristics such as empathy deficits have been associated with low treatment responsivity (Higgs & Carter, 2015). However, Jane recalled the experience of countertransference occurring between her and the patient, which described the process of emotional reactions being bounced back and forth resulting in feelings of both 'being stuck'. Jane's experience could have demonstrated the 'double empathy' phenomenon, where although her patient may have struggled to understand alternative perspective, she too may have struggled to see from her patient's perspective, which may have contributed to a lack of treatment responsivity for her patient therefore hindering therapy progress. Similarly, research has demonstrated that clinicians can underestimate emotional intelligence with their autistic patients, which can adversely affect rapport development (Jones & Botha, 2023).

Another important theme which emerged was being thoughtful about adaptations, where implementation of adaptations went beyond simply ensuring that sensory difficulties, such as sensitivity to light were managed, to a more deeper awareness of factors that may have been hindering treatment engagement such as patients' shame felt around their limited verbal expression. This realization motivated clinicians to provide a non-judgmental space

where the patient felt secure. Furthermore, a common reflection by clinicians included the value they had attached to systemic working as Kate indicated that in her experience a team approach had been effective in managing future risk of offending. If clinicians have attached importance to systemic input then one could speculate their reason for feeling compelled to continue using an individual CBT model for their patient with ASD. An inference could be that clinicians chose to go down the route of applying individual psychological models as the evidence base recommended CBT as being the gold standard (NICE, 2011). All of the clinicians reported feelings of self-doubt and lacking adequate skills related to working with ASD presentations. Emma and Michaela highlighted similar experiences of using avoidance when feelings of incompetence and inadequacy arose. One could speculate whether the process of avoidance served as a defense mechanism that was aimed at managing their painful emotions associated with the state of feeling incompetent and therefore helped them to resolve interpersonal conflicts. This in turn may have increased their confidence to continue delivering treatment (Drapeau & Despland, 2007). Clinicians further held the views that gaps needed to be addressed by services through the provision of training that focused more on delivering therapy to ASD offenders rather than theoretical descriptions of an ASD presentation. Similarly, research has demonstrated that a lack of ASD specific training opportunities for clinicians can impact on how ASD is conceptualized which in turn can give rise to unsuitable treatment strategies being applied (Melvin, 2020).

The subordinate theme ‘feeling hopeful at present but uncertain about the future’ demonstrated that clinicians felt that there were notable indicators of treatment progress. This was a striking finding as a double shift was noted, where initially clinicians contemplated on the suitability of CBT to later recognising the unfolding of a positive impact on patients, such as the emergence of more balanced offence related thinking styles. Similarly, Melvin and Langdon (2020) found improved levels of cognitive empathy in service users who had engaged in sex offender group therapy. A conclusive view held by all clinicians was the uncertainty they felt about how effective therapy was in managing the risk of recidivism and what this meant for the future outlook of their patients. Clinicians felt that this was due to a lack of treatment follow up and patients not having the opportunity to trial therapeutic skills as most of their patients had very limited unsupervised access to the community. Research has also demonstrated the difficulty in ascertaining treatment effectiveness if no follow up protocols or comparators are put in place (Goodman & Leggett, 2008).

Implications for services

The emotional impact of delivering therapy, such as clinicians doubting their own abilities was a salient challenge that was experienced. It was evident that clinicians had attached eminent importance to clinical supervision being an effective method of supporting reflection and containing the clinicians' self-doubt. Furthermore, clinicians raised the issue around training needs and the request for more ASD practice-based training in forensic settings.

Furthermore, all of the clinicians placed more value on integrating adaptations to individualized therapy such as the incorporation of systemic work in facilitating a team driven formulation, in conceptualizing and working with complex needs, rather than solely using individual CBT in order to achieve better treatment responsivity and outcomes. Similarly the RNR model has highlighted the importance of integrating meaningful adaptations to individualized rehabilitative interventions in increasing responsivity and yielding better outcomes for high risk offenders (Bonta & Andrew, 2007).

Clinicians also highlighted the issue around limited opportunities for a lack of treatment follow up, which could potentially maintain recidivism risk, as the dilemma around the extent to which psychological treatment in itself can contribute to the effective management of offending needs for ASD offenders still prevails. Moreover, the findings indicated that the double empathy problem existed which adversely affected rapport development in the initial stages of treatment, therefore treatment follow up protocols could highlight strategies which can support clinicians' awareness of how empathy may be presented in a neurodivergent population to improve treatment responsivity (Botha, 2023).

The above areas have also been outlined in the '*The Matrix: A Guide to Delivering Evidence-based Psychological therapies'* framework (NHS Education for Scotland, 2015) as areas that require imminent focus by mental health services and could also be pragmatic starting points that could be implemented by forensic services to potentially increase positive therapeutic outcomes.

Limitations

The study was based in forensic settings therefore the findings may not be generalized to community mental health settings as the nature and context of risk may be different. Moreover, the study used an IPA approach, and a researcher induced bias effect may have arisen which could have potentially impacted on the reliability and validity of the study's findings (Smith & Osbourne, 2008).

Future research

A study using a grounded theory approach incorporating the views of service users who have been successfully rehabilitated can be conducted to potentially develop a conceptual framework to identify the effect of embedding adaptations to established protocols on outcomes.

The views of clinicians working in prisons would be significant to capture especially due to current issues around appropriateness of the CJS settings and limited availability of psychological treatment programmes for prisoners with ASD and ID (Prison Reform, 2012) and how these areas could be addressed and improved to increase positive outcomes for this population.

As the current study solely focused on female clinicians, future research could capture the experiences of male clinicians to examine whether male ASD individuals with forensic needs respond differently to treatment delivered by male therapists. As research has shown that male patients may find it difficult to reveal vulnerabilities to female therapists as they may want to uphold a bravado image (Deering & Gannon, 2005).

Conclusion

The study's findings revealed that clinicians viewed psychological therapy models as being suitable if appropriate adaptations were made to individual therapies such as CBT. Clinicians felt certain ASD characteristics, such as cognitive rigidity, interfered with the therapeutic processes and impacted on treatment responsivity. However, a systems based approach was seen to reduce the impact of these characteristics. Furthermore, there was a shared consensus amongst clinicians that markers of change such as improved offence related cognitions indicated treatment progress. However, the contribution of psychological therapies to the effective management of recidivism of ASD offenders remains unclear.

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Journal Declaration Statement

The authors report there are no competing interests to declare

Journal Data Availability Statement

The data that support the findings of this study are openly available in the Open Science Framework at:
https://osf.io/

Appendices

Appendix 1: Example of OVID search strategy (PsychInfo)

APA PsycInfo <1806 to June Week 3 2023>

1 (autis* or asd or Asperger*).ti,ab. 65690
2 (crim* or prison* or jail* or arrest* or inmate* or offen* or recidivism or incarcerat* or forensic* or low secur* or medium secur* or high secur* or in-patient service or inpatient service).ti,ab. 151299
3 autism spectrum disorders/ or stereotyped behavior/ 58589
4 criminal justice/ or criminal conviction/ or crime/ or perpetrators/ or crime prevention/ or forensic psychiatry/ or forensic psychology/ 45687
5 incarcerated/ or correctional institutions/ or criminal offenders/ or forensic assessment/ or forensic evaluation/ or incarceration/ or legal detention/ or adjudication/ or recidivism/ or prisons/ or prisoners/ 51065
6 intellectual development disorder/ or down's syndrome/ 48649
7 (learning disorder* or intellectual disabilit* or learning disabilit* or Intellectual development* or mental* retard* or down* syndrome).ti,ab. 69904
8 1 or 3 or 6 or 7 145210
9 2 or 4 or 5 169823
10 8 and 93484
11 (group* adj3 (therap* or treat* or interven* or psychoeducation or psychotherap* or program* or trial* or pilot* or rehab* or CBT or behaviour or cognitive or evaluat* or forensic or effect* or compassion focused or analytic or schema or dialectic or psychodynamic or psychoanalysis or narrative or DBT or logotherapy or mindfulness or outcome* or approach*)).ti,ab. 135173
12 group psychotherapy/ or group intervention/ 24888
13 11 or 12 139321
14 10 and 13 134
15 limit 14 to all journals 109

Appendix 2: Proquest Search Strategy (ASSIA)

Set#	Searched for	Databases	Results
S1	title("autis* "or "asd" or "Asperger*") OR abstract("autis* "or "asd" or "Asperger*")	Applied Social Sciences Index & Abstracts (ASSIA)	19942
S2	MAINSUBJECT.EXACT("Autistic adults") OR MAINSUBJECT.EXACT("Autism")	Applied Social Sciences Index & Abstracts (ASSIA)	14013
S3	title("crim*" or "prison*" or "jail*" or "arrest*" or "inmate*" or "offen*" or "incarcerat*" or "forensic*" or "low secur*" or "medium secur*" or "high secur*" or "in-patient service" or "inpatient service") OR abstract("crim*" or "prison*" or "jail*" or "arrest*" or "inmate*" or "offen*" or "incarcerat*" or "forensic*" or "low secur*" or "medium secur*" or "high secur*" or "in-patient service" or "inpatient service")	Applied Social Sciences Index & Abstracts (ASSIA)	63751
S4	(MAINSUBJECT.EXACT("Violent crime") OR MAINSUBJECT.EXACT("Serious crime") OR MAINSUBJECT.EXACT("Sex crimes")) OR (MAINSUBJECT.EXACT("Violent crime") OR MAINSUBJECT.EXACT("Serious crime") OR MAINSUBJECT.EXACT("Sex crimes"))	Applied Social Sciences Index & Abstracts (ASSIA)	8744
S5	(MAINSUBJECT.EXACT("Criminal sentences") OR MAINSUBJECT.EXACT("Criminal offences")) OR	Applied Social Sciences Index & Abstracts (ASSIA)	3883

	(MAINSUBJECT.EXACT("Criminal sentences") OR MAINSUBJECT.EXACT("Criminal offences"))		
S6	MAINSUBJECT.EXACT("Jurisprudence") OR MAINSUBJECT.EXACT("Jurisprudence")	Applied Social Sciences Index & Abstracts (ASSIA)	280
S7	(MAINSUBJECT.EXACT("Forensic psychology") OR MAINSUBJECT.EXACT("Forensic psychiatry")) OR (MAINSUBJECT.EXACT("Forensic psychology") OR MAINSUBJECT.EXACT("Forensic psychiatry"))	Applied Social Sciences Index & Abstracts (ASSIA)	1553
S8	MAINSUBJECT.EXACT("Recidivism") OR MAINSUBJECT.EXACT("Recidivism")	Applied Social Sciences Index & Abstracts (ASSIA)	3186
S9	MAINSUBJECT.EXACT("Prisons") OR MAINSUBJECT.EXACT("Prisons")	Applied Social Sciences Index & Abstracts (ASSIA)	6423
S10	MAINSUBJECT.EXACT("Prisoners") OR MAINSUBJECT.EXACT("Prisoners")	Applied Social Sciences Index & Abstracts (ASSIA)	7868
S11	MAINSUBJECT.EXACT("Readmission") OR MAINSUBJECT.EXACT("Readmission")	Applied Social Sciences Index & Abstracts (ASSIA)	990
S12	title("learning disorder*" or "intellectual disabilit*" or "learning disabilit*" or "Intellectual development*" or "mental*" "retard*" or "down*" syndrome)	Applied Social Sciences Index & Abstracts (ASSIA)	19068

	OR abstract("learning disorder*" or "intellectual disabilit*" or "learning disabilit*" or "Intellectual development*" or "mental*" "retard*" or "down*" syndrome)		
S13	(MAINSUBJECT.EXACT("Intellectual disabilities") OR MAINSUBJECT.EXACT("Intellectually disabled people")) OR (MAINSUBJECT.EXACT("Intellectual disabilities") OR MAINSUBJECT.EXACT("Intellectually disabled people"))	Applied Social Sciences Index & Abstracts (ASSIA)	5165
S14	title("group*" N/2 ("therap*" or "treat*" or "interven*" or "psychoeducation" or "psychotherap*" or "program*" or "behaviour*" or "cognitive" or "trial*" or "pilot*" or "rehab*" or "CBT" or "evaluat*" or "forensic" or "effect*" or "analytic" or "schema" or "dialectic" or "psychodynamic" or "psychoanalysis" or "narrative" or "DBT" or "compassion* focused" or "logotherap*" or "mindfulness" or "outcome*" or "approach*")) OR abstract("group*" N/2 ("therap*" or "treat*" or "interven*" or "psychoeducation" or "psychotherap*" or "program*" or "behaviour*" or "cognitive" or "trial*" or "pilot*" or "rehab*" or "CBT" or "evaluat*" or "forensic" or "effect*" or "analytic" or "schema" or "dialectic" or "psychodynamic" or "psychoanalysis" or "narrative" or "DBT" or "compassion* focused" or "logotherap*" or	Applied Social Sciences Index & Abstracts (ASSIA)	35246

	"mindfulness" or "outcome*" or "approach*"))		
S15	MAINSUBJECT.EXACT("Group therapy") OR MAINSUBJECT.EXACT("Group therapy")	Applied Social Sciences Index & Abstracts (ASSIA)	3645
S16	(MAINSUBJECT.EXACT("Groups") OR MAINSUBJECT.EXACT("Group processes") OR MAINSUBJECT.EXACT("Group work") OR MAINSUBJECT.EXACT("Group psychotherapy")) OR (MAINSUBJECT.EXACT("Groups") OR MAINSUBJECT.EXACT("Group processes") OR MAINSUBJECT.EXACT("Group work") OR MAINSUBJECT.EXACT("Group psychotherapy"))	Applied Social Sciences Index & Abstracts (ASSIA)	5717
S17	S1 OR S2 OR S12 OR S13	Applied Social Sciences Index & Abstracts (ASSIA) These databases are searched for part of your query.	38277
S18	S3 OR S4 OR S5 OR S6 OR S7 0R S8 OR S9 OR S10 OR S11	Applied Social Sciences Index & Abstracts (ASSIA) These databases are searched for part of your query.	72037
S19	S14 OR S15 OR S16	Applied Social Sciences Index & Abstracts (ASSIA) These databases are searched for part of your query.	39386
S20	S17 AND S18 AND S19	Applied Social Sciences Index & Abstracts (ASSIA) These databases are searched for part of your query.	78

Appendix 3: MMAT

Part II: Mixed Methods Appraisal Tool (MMAT), version 2018

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions?				
	S2. Do the collected data allow to address the research questions?				
	Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?				
	1.2. Are the qualitative data collection methods adequate to address the research question?				
	1.3. Are the findings adequately derived from the data?				
	1.4. Is the interpretation of results sufficiently substantiated by data?				
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?				
	2.2. Are the groups comparable at baseline?				
	2.3. Are there complete outcome data?				
	2.4. Are outcome assessors blinded to the intervention provided?				
	2.5 Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population?				
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?				
	3.3. Are there complete outcome data?				
	3.4. Are the confounders accounted for in the design and analysis?				
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?				
	4.2. Is the sample representative of the target population?				
	4.3. Are the measurements appropriate?				
	4.4. Is the risk of nonresponse bias low?				
	4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?				
	5.2. Are the different components of the study effectively integrated to answer the research question?				
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

Appendix 4: Data extraction tool

Data extraction tool

Study

• Author:

• Year:

• Title:

• Country:

• Study setting:

• Recruitment base:

• Eligibility Criteria:

• Sampling Method:

• Sample size:

• Age:

• Demographics (e.g. male/female, ethnicity):

• Diagnosis:

• IQ Score:

• Study Design:

• Type of Group Intervention:

• Outcome measures:

• Key findings (reporting of statistical test figures, p values, and effect size information if possible or qualitative themes):

Appendix 5: Prisma Check list

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	9
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	10
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	12
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	12
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	12
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	13
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	15
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	13
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	14
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	22
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	22
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	22
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	22
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	22
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	20
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	36
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	36
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	36
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	36
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	16
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	-

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	36
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	36
Study characteristics	17	Cite each included study and present its characteristics.	36
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	-
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	36-38
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	-
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	36
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	36
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	36-38
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	16
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	36
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	38
	23b	Discuss any limitations of the evidence included in the review.	39
	23c	Discuss any limitations of the review processes used.	40
	23d	Discuss implications of the results for practice, policy, and future research.	40
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	84
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	84
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	-
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	84
Competing interests	26	Declare any competing interests of review authors.	71
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	76-82

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: http://www.prisma-statement.org/

Appendix 6: Systematic Review Protocol

crd.york.ac.uk/PROSPERO/display_record.php?RecordID=443052

Appendix 7: MVLS Ethics Approval Letter

MVLS Ethics Approval Letter removed due to confidentiality issues.

Appendix 8: R&I Management Approval Letter

Coordinator/administrator: Euan Rennie
Telephone Number:
E-Mail: euan.rennie@ggc.scot.nhs.uk
Website: https://www.nhsggc.org.uk/about-us/professional-support-sites/research-innovation

Research & Innovation
Dykebar Hospital, Ward 11
Grahamston Road
Paisley, PA2 7DE
Scotland, UK

15/05/2023

Miss Maria Abbas
University of Glasgow

NHS GG&C Board Approval

Dear Miss Maria Abbas

Study Title:	Delivering psychological therapies to service users with ASD and risk needs in Forensic settings (FS): An IPA exploration of staff experiences.
Principal Investigator:	Miss Maria Abbas
GG&C HB site	NHS Greater Glasgow and Clyde
Sponsor	NHS Greater Glasgow and Clyde
R&I reference:	GN22MH506
REC reference:	N/A
Protocol no: (including version and date)	V3.2 22.02.2023

I am pleased to confirm that Greater Glasgow & Clyde Health Board is now able to grant **Approval** for the above study.

Conditions of Approval

1. **For Clinical Trials** as defined by the Medicines for Human Use Clinical Trial Regulations, 2004
   a. During the life span of the study GGHB requires the following information relating to this site
      i. Notification of any potential serious breaches.
      ii. Notification of any regulatory inspections.

It is your responsibility to ensure that all staff involved in the study at this site have the appropriate GCP training according to the GGHB GCP policy (www.nhsggc.org.uk/content/default.asp?page=s1411), evidence of such training to be filed in the site file. Researchers must follow NHS GG&C local policies, including incident reporting.

2. **For all studies** the following information is required during their lifespan.
   a. First study participant should be recruited within 30 days of approval date.
   b. Recruitment Numbers on a monthly basis
   c. Any change to local research team staff should be notified to R&I team
   d. Any amendments – Substantial or Non Substantial
   e. Notification of Trial/study end including final recruitment figures

Appendix 9: MRP Proposal

https://osf.io/kzs2n

Appendix 10: Study Protocol

https://osf.io/es8gc

Appendix 11: Participant Information Sheet

https://osf.io/z6wdt

Appendix 12: Study Leaflet

https://osf.io/5y6t3

Appendix 13: Consent Form

https://osf.io/qzsjh

Appendix 14: Interview Schedule

https://osf.io/53gje

Appendix 15: Counselling Support Leaflet

https://osf.io/qw84h

Appendix 16: Demographic Data Collection Form

https://osf.io/48xv5

Ipa interview reflective journal:

Challenges/way to improve:

- Staff being very generic have to encourage and prompt them to be more personal ask for more explicit examples, they could even say the name to the patient. Say this in introduction too
- Don't let my own knowledge come into the interview and staff can then subconsciously be influenced and feel the need to agree
- Less interruptions of saying yes and just actively listen more
- If no new answer is coming then move onto next topic to prevent interviewee frustrations
- Participant 4 interview: confused about how much to reveal long pauses. Asked me to pause to clarify confidentiality issues then settled into interview when I told them other interviewees had given lived examples
- After transcribing second interview I realized I was still asking leading questions and bringing my assumptions into the interview. Took a note of this and made sure I didn't do it for other interviews, so to decrease researcher bias
- Clinicians were very hesitant to talk about their feelings associated with the experience of working with ASD patients, struggled to be vulnerable. Were reticent in terms of personal feelings elicited
- Is cbt even suitable? Or does working with asd and offending needs require more formulation driven and strengths based work?
- Used the word systemic for challenges in interview 3. May have bought bias or made them answer a certain way

Appendix 18: Transcript for Emma sample

Emma: Okay

I: Umm and just erm just basically exploring your experiences and if you have any questions even in between then that's absolutely fine.

Emma: Okay

I: Um [pause for 1 second] so I'll try and answer as much as I can. But um are you okay to begin?

Emma: Perfect!

I: Great! Okay, so we'll start off with what are your beliefs on the suitability of specialist psychological interventions, such as psychological programmes in managing mental health needs and risk behaviours?

Emma: In general or for autistic people?

I: For autistic people

Emma: For autistic people? Umm [pause for 2 secoonds], I think we definitely should offer psychological therapy to autistic people who have offending behaviors. I wonder if we need to have um a clearer sense of [pause for 2 seconds] of all the factors that we need to take into account when we're working with somebody who's neurodivergent. Um [pause for 2 secids], so I don't necessary think that that therapeutic work should be looking exactly the same [pause for 1 second] as with somebody else, so yeh I really think it should be done. I'm not clear that it should be done in the same way I suspect that it should be more individualized and more adapted.

I: Okay

Emma: I think

I: Okay. So um I'm going to ask you a bit about the adaptation later on as well

Emma: Okay.

I: Um, so [pause for 2 seconds] just following onto the next question. Um what are your views on the effectiveness of

these interventions [pause for 2 seconds] in managing mental health needs and risk behaviours in people with Autistic Spectrum conditions and offending behaviour?

Emma: Yehh I definitelyy [pause for 2 seconds] have more {speech slowed a bit} difficulty doing therapeutic with Autistic individuals who've got offending behavior than [sighs and pauses for 2 seconds] the other people in my caseload. Um [pause for 1 second] and that's not a completely you know um [pause for 2 seconds] kind of [pause for 2 seconds] concrete and ring fence sort of statement, there's definitely other people on my caseload who are not autistic who I have the same sort of [pause] difficulty getting um results with. Um, I am struggling to think of autistic individuals that I've worked with particularly without learning disabilities, where um we've reached the goals [pause] of treatment. Umm [pause for 3 seconds], so sorry could you remind me what the question was again?

I: Umm so it's basically your own views on the effectiveness of the therapy models that you've delivered? So the people that have the ASD can also have comorbid LD

Emma: Hmm, yeh

I: Uhh

Emma: I think for those people who where there's been a comorbid LD, we've taken a much systemic approach with because almost [pause for 1 second] there um cases have almost invited that. They've had support workers involved or they've had various team members involved. Um [pause for 2 seconds] and because of the addition of those people and possibly how used to individuals with learning disabilities are at having a systemic sort of everyone involved system around them. We've um [pause for 2 seconds] taken a sort of systemic approach which probably has slightly more better outcomes I think. Uh so taking a more values based positive behaviour support umm [pause for 2 seconds] informed approach has probably led to better outcomes with those people who've had a learning disability than a direct sort of sitting in a room working through somebody's beliefs or the thoughts that they are having, Umm. [Pause for 1 second] or how how distressed they feel and trying to to find ways to address that. It's definitely been effective at working with people's distress in the room and that's whether people with learning disabilities or people umm [pause for 1 second] without learning

Appendix 19: IPA exploratory notes and experiential statements sample for Emma

Emma: Okay

I: Um [pause for 1 second] so I'll try and answer as much as I can. But um are you okay to begin?

Emma: Perfect!

I: Great! Okay, so we'll start off with what are your beliefs on the suitability of specialist psychological interventions, such as psychological programmes in managing mental health needs and risk behaviours?

Emma: In general or for autistic people?

I: For autistic people

Emma: For autistic people? Umm [pause for 2 seconds], I think we definitely should offer psychological therapy to autistic people who have offending behaviors. I wonder if we need to have um a clearer sense of [pause for 2 seconds] of all the factors that we need to take into account when we're working with somebody who's neurodivergent. Um [pause for 2 seconds], so I don't necessary think that that therapeutic work should be looking exactly the same [pause for 1 second] as with somebody else, so yeh I really think it should be done. I'm not clear that it should be done in the same way I suspect that it should be more individualized and more adapted

I: Okay

Emma: I think

I: Okay. So um I'm going to ask you a bit about the adaptation later on as well

Emma: Okay.

I: Um, so [pause for 2 seconds] just following onto the next question. Um what are your views on the effectiveness of these interventions [pause for 2 seconds] in managing mental health needs and risk behaviours in people with Autistic Spectrum conditions and offending behaviour?

Emma: Yeh I definitely [pause for 2 seconds] have more [speech slowed a bit] difficulty doing therapeutic work with Autistic individuals who've got offending behavior than [sighs and pauses for 2 seconds] the other people in my caseload. Um [pause for 1 second] and that's not a completely you know um [pause for 2 seconds] kind of [pause for 2 seconds] concrete and ring fence sort of statement, there's definitely other people on my caseload who are not autistic who I have the same sort of [pause] difficulty getting um results with. Um, I am struggling to think of autistic individuals that I've worked with particularly without learning disabilities, where um we've reached the goals [pause] of treatment. Umm [pause for 3 seconds], so sorry could you remind me what the question was again?

I: Umm so it's basically your own views on the effectiveness of the therapy models that you've delivered? So the people that have the ASD can also have comorbid LD

Emma: Hmm, yeh

3

Feels strongly about equality and equity for people with ASD

The need for efffective adaptations to treatment for people with ASD

Feelings of frustration when delivering therapies

Feels strongly about current psychological treatments being ineffective for people with ASD

Does she strongly feel that mental health services should offer the same quality of psychological interventions equally to minority populations – ASD as neurotypical people? *'definitely should offer psychological therapy to..'*

Why does she advocate the need to make special adaptations: *'more individualized and more adapted'*.

Is it so people with ASD can benefit in the same way as the typical population?
Is there a sense of not discriminating against people with ASD and that an element of equity and not equality being communicated here? *'So I don't necessary think that therapeutic work should be looking exactly the same'*.

Sighs – is this expressing her frustrations at experiencing difficulties of doing therapy work with people with ASD and offending needs? 'more difficulty doing therapeutic work with autistic individuals than other people on my caseload'.

What is being conveyed by the use of the word *'struggle'*? Why aren't goals reached for people with ASD without LD? Is she indicating that psychological therapies are more effective for people with LD compared to people with ASD? *'struggle to think' 'autistic people without LD' 'reached goals'*

Overall lots of pauses in this paragraph, is she 'struggling' to think about a time when therapy has been effective? At the end she has asked for the question to be repeated, is she hesitant to express views of inefficacy of psychological therapies for individuals with ASD?

Appendix 20: IPA Clustering of experiential themes from Emma's transcript sample

Clustering of experiential statements

A

She has strong belief that appropriate treatment adaptations need to made for patients with ASD

Feels that there are a lack of adaptations in treatment in Forensic Settings for people with ASD

She feels that in her own therapy treatment models there aren't enough adaptations made for her patients

Expresses the belief that there is need for more specific ASD adaptations to CBT and other therapies

Passionate about making reasonable adjustments to therapies

She is questioning the true function of adaptations for patients with ASD in the context treatment effectiveness

B

She feels strongly about people with ASD receiving support which is equal and equitable to the typical population

Views that support/treatments given in CJS services may not be suitable for people with ASD and/or LD

She holds the belief that there is good accessibility of CBT to people with ASD across forensic sites in GGC

Feels that forensic services need to give equitable support to patients with ASD and offending behaviour

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Appendix 21: IPA Personal Experiential Themes for Emma

Theme 2: The interference of ASD characteristics		
- Cognitive inflexibility presenting as a barrier	10/415-419	'And in terms of [pause for 1 second] uhh like [stutters] kind of repetitive ways of thinking or quite restricted ways of thinking [pause for two seconds], yeh it's definitely been really challenging at times um trying to move somebody off [pause for 1 second] a topic that's of particular interest to them or shift a very [pause] um [pauses for two seconds] a way of thinking that's been rehearsed or repeated'
- Inability to internalise and generalize therapy skills	4/148-152	'Um definitely have the benefit of doing some relaxation exercises or grounding techniques. Umm [pause for 3 seconds] in the room you can physically see the person can [pause for three seconds], but I've not had that same um carry through to their day to day life where they've gone and been able to find that beneficial doing those exercises in their own home or out or out in the environment, where they find it tricky'
- Lack of social imagination	10/411-414	'In terms of thinking about [pause for 1 second] umm [pause for three seconds] kind of imagination and more abstract thinking, again I feel like I know what to do, I can make that a bit bit clearer other than the generalizing out to day today life. It's very difficult to make that sort of link.'

Appendix 22: IPA Group Experiential Themes

Group Experiential Themes (GETs)

A. Ambiguity around treatment suitability and effectiveness

- Questioning CBT suitability
- Views on psychological therapy accessibility
- Questioning treatment effectiveness

B. Barriers to treatment engagement and responsivity

- Focusing on individual psychological therapy
- One blanket doesn't fit all (insufficient adaptations)
- Working with complex comorbid diagnoses
- ASD characteristics interfering with therapeutic process

C. Systemic challenges hindering effective treatment facilitation

- Emotional impact of working with offenders with ASD
- Gaps in ASD training
- Lack of treatment follow up

D. Subjective strategies used to address and overcome barriers/challenges to treatment delivery

- Managing self-doubt and hopelessness (supervision and ASD training, normalizing slow treatment pace)
- Being thoughtful about adaptations
- Forming a meaningful connection (Getting to know patient)
- Value of systemic working

E. Therapeutic outcomes looking promising

Appendix 23: Group Experiential Themes table sample

Group Experiential Themes	Page/line
Group Experiential Theme 1: Ambiguity around treatment suitability and effectiveness 1a. Questioning individual CBT suitability and effectiveness	
Olivia: Umm, but I do think it needs adapted to make the language [pause] more suitable so that the person understands the impact and how this affects them. So language definitely needs to be changed.. with um [pause] an ASD perspective in mind'	3/59-61
Jane: 'I think it's just a case of adapting it but yeh I guess it's not in it's purest form, it's not unsuitable, it has to be adapted [pause] quite a bit for him. Erm yeh.'	3/85-86
Michaela: So I'm saying he is, he's not appropriate for psychological therapies at this point. Why do I think that? And I, I struggled with that a bit, um, because is it just the fact that his ASD that I think that, or is it there's other things going on that make it difficult for him.'	14/545-546
Gemma: Um, I think probably what I found is that things need to be repeated. Um I rarely found that it's been effective after I guess you can call it one dose for for example. I think things do needs to be repeated um I think if you haven't got the communication or the adaptations right then actually I don't think they're effective at all [Chuckles].	14/653-655
Jane: 'But like in terms of an observable change in behaviour I'm not sure you would see that [pause] from from the formulation work that we've done.'	10/397

Appendix 24: COREQ Checklist

COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	51
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	55
Occupation	3	What was their occupation at the time of the study?	55
Gender	4	Was the researcher male or female?	55
Experience and training	5	What experience or training did the researcher have?	55
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	52
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	55
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	55
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	51
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	51
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	53
Sample size	12	How many participants were in the study?	53
Non-participation	13	How many people refused to participate or dropped out? Reasons?	-
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	53
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	53
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	52
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	53
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	-
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	53
Field notes	20	Were field notes made during and/or after the inter view or focus group?	53
Duration	21	What was the duration of the inter views or focus group?	53
Data saturation	22	Was data saturation discussed?	53
Transcripts returned	23	Were transcripts returned to participants for comment and/or	-

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	56
Description of the coding tree	25	Did authors provide a description of the coding tree?	56
Derivation of themes	26	Were themes identified in advance or derived from the data?	57
Software	27	What software, if applicable, was used to manage the data?	-
Participant checking	28	Did participants provide feedback on the findings?	58
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	57
Data and findings consistent	30	Was there consistency between the data presented and the findings?	57-66
Clarity of major themes	31	Were major themes clearly presented in the findings?	57-66
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	64

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.

Appendix 25: Sexual reoffending and Arson reoffending outcome data

Study number and Authors	Diagnosis (Intellectual Disability (ID) / Autism Spectrum Disorder (ASD)	Total number of individuals receiving group psychological treatment for sexual offending *(N and Percentage)	Total number of individual committing sexual reoffences post group psychological treatment *(N and Percentage)
2. Craig & Stringer (2012)	ID	14	0 (after 1 year follow up)
3. Heaton and Murphy (2013)	ID and ASD	34	8 (24%) men with ASD (after 2 year treatment follow up)
4. Hickman and Morris (2022)	ID and ASD	16	0 (1 year follow up)
5. Lindsey and Smith (1998)	ID	14 in total Treatment group 1: 7 Treatment group 2: 7	Group 1: 2 (29%) had reoffended Group 2: 0 (after 2 year follow up)
6. Murphy & Powell (2007)	ID and ASD	8	0% ID at 6 months follow up 3 (37.5%) men with ASD after 6 month follow up
7. Murphy & Sinclair (2023)	ID and ASD	98	ID: 8 (8%) ASD: 21 (21%) (after 6 month follow up)
8. Murphy (2010)	ID and ASD	46	4 (8.69%) men with ASD

9. Swanson and Garwick (1990)	ID	15	6 (40%) men after a 1 year follow up

Study number and Authors	**Diagnosis** **(Intellectual Disability (ID) / Autism Spectrum Disorder (ASD)**	**Total number of individuals receiving group psychological treatment for arson offending** ***(N and Percentage)**	**Total number of individual committing arson reoffences post group psychological treatment** ***(N and Percentage)**
2. Taylor and Robertson (2006)	ID	6	0 (after 2 year follow up)

Appendix 26: Journal Submission Guidelines

https://www.tandfonline.com/action/authorSubmission?show=instructions&journalCode=gpcl20