# Enhancing Communication and Support for Autistic and Learning-Disabled Individuals in the Criminal Justice System

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**(D.Foren.Psy)**

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## Thesis Abstract

This thesis provides a comprehensive exploration of the use of special measures and bespoke communication tools to support autistic and learning-disabled individuals in communicating and engaging with the criminal justice system. The methods used include a systematic review, a methodological critique, an empirical research study, and a case study.

Chapter One introduces the current literature on the experiences of autistic and learning-disabled individuals' contact with the criminal justice system. It examines theories of communication in both autism and learning disabilities and the impact that communication barriers have on engagement with the criminal justice system. The chapter identifies existing provisions of support, highlighting gaps that warrant further exploration, which this thesis seeks to address.

Chapter Two presents a systematic review synthesising the current evidence on vulnerable witnesses' experiences of using special measures in the courtroom. The review builds on the challenges identified in Chapter One. Findings from this review suggest that special measures appear to have a positive impact when appropriately implemented. The need for greater intervention to ensure individuals understand questioning during cross-examination, alongside positive views towards the use of intermediaries and communication aids, is recognised.

While the systematic review in Chapter Two explores what research exists on special measures, Chapter Three considers how reliable and valid this evidence is, particularly where it stems from jury simulation studies – a dominant methodology underpinning much of the literature in this area. The analysis highlights how methodological choices should align with the nature of the research question (whether legal or psychological), as well as the intended audience (e.g., academic, applied, or policy makers).

In response to the gaps identified within the literature, Chapter Four presents an empirical study exploring the influence of autism diagnosis disclosure and supporting information, intermediary support, and their combination on jurors' attributions of guilt and leniency towards an autistic male defendant. The

findings suggest that neither the provision of an autism diagnosis and supporting information, nor the presence of an intermediary, significantly affected whether participants judged the defendant as guilty or not. Similarly, isolated judgements of criminal intention, moral responsibility, and legal responsibility were not strongly influenced by these factors; however, when combined, they did affect the overall pattern of participants' attributions.

Building on the empirical concerns raised in Chapters One through Four, Chapter Five offers a real-world case study describing the practical application of two communication tools – mood cards and a positive behavioural support intervention for a female forensic inpatient diagnosed with a learning disability. The integration of mood cards within the Positive Behaviour Support (PBS) framework for Ms Z represents a diverse, person-centred approach that addresses both communication and behavioural needs holistically. The findings highlight how visual communication tools can enhance the effectiveness of behavioural interventions, demonstrating the core role communication plays, particularly in autistic and learning disability populations.

Finally, Chapter Six concludes the thesis. It presents a summary of the findings in Chapters Two through Five. It discusses implications for research and practice, acknowledges strengths and limitations, and critically offers recommendations for future research to advance support for autistic and learning-disabled individuals engaged with the criminal justice system.

**Keywords:** Learning Disability, Autism, Special Measures, Communication, Intermediaries, Expert Evidence, Juror Perceptions.

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# Chapter One:

# Thesis Introduction

## Background

Significant concerns have been raised regarding the extent to which the criminal justice system 'takes adequate account of the structural, institutional barriers for disabled individuals' (Diesfeld et al., 2008, p. 433). In 2009, the Bradley Report identified crucial shortcomings in appropriately informed, tailored treatment pathways for individuals with a learning disability in their engagement with the criminal justice system. The Bradley Report outlined several important recommendations, including improved screening and identification of people with learning disabilities at the point of arrest, diversion away from the criminal justice system where appropriate, reception screening upon entering prison, greater support for individuals with learning disabilities, and awareness training for staff. Several years later, in January 2014, the Criminal Justice Joint Inspection published a report exploring the treatment of defendants with learning disabilities, as well as neurodevelopmental conditions including autism (Criminal Justice Joint Inspection, 2014; 2015). Of concern, the report similarly concluded that awareness and support for these individuals within the police, courts and prison services remained insufficient. In 2020, an independent review of neurodiversity within the criminal justice system was carried out (Criminal Justice Joint Inspection, 2021). Several important recommendations were made, mirroring previous shortcomings in appropriately informed, tailored support for this population. These included (i) screening to identify neurodivergence in individuals in contact with the criminal justice system; (ii) adjustments to support those with neurodivergent needs; (iii) programmes and interventions which have been specifically designed or adapted for neurodivergent needs; and (iv) training and support for staff to help them support individuals with neurodivergent needs. Whilst positive progress has since been recognised, consensus remains that greater understanding and intervention are needed to overcome the ongoing challenges and barriers faced by individuals with learning disabilities and autism (Slavny-Cross et al., 2023). This thesis therefore aims to begin to bridge gaps in the literature and offers a unique investigation into the use of special measures, and bespoke tools, to support autistic individuals, and

those with learning disabilities, to communicate and engage with the criminal justice system.

## Autism

### *Definition*

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterised by 'persistent deficits in initiating and sustaining social communication and reciprocal social interactions; persistent restricted, repetitive, and inflexible patterns of behaviour, interests, or activities; Lifelong, excessive and persistent hypersensitivity or hyposensitivity to sensory stimuli, or unusual interest in sensory stimuli' (World Health Organisation, 2019). [1]

### *Prevalence*

It is estimated that autism is present in approximately 1-2.5% of the general population (Brugha et al., 2016; Kogan et al., 2018). However, rates of autism within the criminal justice system are difficult to clearly estimate and are exacerbated further given the heterogeneity of autism presentations.
Some studies suggest that autistic individuals are over-represented in prison populations (e.g., Hellenbach et al., 2017; Underwood et al., 2016), whereas others suggest that this is not the case (King & Murphy, 2014). Other researchers argue that individuals with autism are seven times more likely to encounter the police compared to the general population, and that 15% of young people within custody have autism (Debbaunt, 2004). However, Yu et al. (2021) revealed limited differences in criminal justice involvement between autistic adults, those with a learning disability, and the general population. Additionally,

[1] This thesis is conceptualised using identify-first language, which suggests that individuals with impairments are disabled primarily due to societal barriers rather than the impairments themselves (Inclusion London, 2015). Conversely, the term "people with disability" is argued to inadvertently convey the disabling effects created by society; instead, it may imply that the individual is the cause of their disablement. Whilst acknowledging that no universally terminology for describing autism exists (Smith, 2023), this thesis adopts the term "autistic person" in line with recent statutory guidance (Dfe & DOHSC, 2021). It is hoped that supporting this view aims to empower individuals to positively identify as disabled, promote autonomy, and develop more affirmative identities. This socially inclusive approach also seeks to counter stigma, stereotypes and attitudes that can create additional barriers for autistic people.

an alternative theory explaining the high rates of autism involvement with the criminal justice system could be that autistic individuals are increasingly more vulnerable to being the victims of crime and are more likely to seek support from the police (Christoffersen, 2019; Gibbs & Haas, 2020). As an example, autistic individuals are ten times more likely to experience sexual violence (Modell & Mak, 2008). Discrepancies and uncertainty in statistics may also be attributed to differences in definitions, diagnostic criteria, co-occurring conditions, sampling strategies and sizes, and methodologies (Murphy & Mason, 2014). Moreover, within the United Kingdom, there is no screening process for autism upon entering prison (Chaplin & McCarthy, 2014), and whilst the Autism Spectrum Quotient (AQ, Baron-Cohen et al., 2001) is frequently used, it is important to note that this measure holds limited sensitivity within clinical and forensic populations (Ashwood et al., 2016; Murphy, 2011), and is complicated further by difficulties in obtaining fully accurate developmental histories required for assessment (Woodhouse et al., 2024). Moreover, further exploration into the offending behaviours of female autistic individuals is greatly warranted, alongside those from ethnic minority backgrounds, given that much of the current literature focuses on white males.

**Autism and Criminal Behaviour**

Whilst autism itself is not an inherent risk factor for engaging in offending behaviours, specific characteristics of autism may increase vulnerability to offending pathways (Allely & Creaby-Attwood, 2016; Browning & Caulfield, 2011). When examining trends in offences, sexual and arson offences appear to be the two most prominent crimes committed by autistic individuals (Mouridsen, 2012). This was examined by Payne et al. (2020) who sought to explore the reasons why autistic individuals engage in sexual offences. The findings revealed that social skills difficulties, limited perspective and central coherence, misunderstandings of their behaviours, and limited appropriate relationships were the main reasons offered. In contrast, crimes against property including trespassing, theft, and burglary (Blackmore et al., 2022; Cheely et al., 2012; Helverschou et al., 2015; Kumagami & Matsuura, 2009) appear to be less common, alongside traffic violations, probation violations and substance abuse (Blackmore et al., 2022; Cheely et al., 2012; King & Murphy, 2014). These

notable differences in crime types appear to suggest variations in motives for offending, which could perhaps be understood by looking more closely at the features of autism. The literature indicates that cognitive deficits in autism may go some way in explaining offending behaviour (Haskins & Silva, 2006). These include difficulties in recognising and understanding others' emotions (e.g., fear), awareness and understanding of others' behaviour, as well as difficulties anticipating consequences (Baron-Cohen et al., 2001). These difficulties are thought to play a role in both sexual offending (Haskins & Silva, 2006; Loftin, 2021) and stalking behaviours (Sperry et al., 2021; Stokes et al., 2007). Obsessive narrow-focused interests found in autism have also been linked to stalking and sexual offending, often manifesting as a sexual preoccupation and compounded further by difficulties in communication and social interaction (Chan & Saluja, 2011; Ray et al., 2004). Differences in sexual development (Dekker et al., 2015) and difficulties developing appropriate sexual relationships (Sutton et al., 2013) are also recognised. Nonetheless, outside of sexual offending, obsessive narrow-focused interests have also been linked to arson, theft, and violent offending (Barry-Walsh & Mullen, 2004; Chen et al., 2003; Haskins & Silva, 2006; Shields & Beversdorf, 2021). Moreover, another important symptom of autism associated with offending behaviours is executive functioning (Shields & Beversdorf, 2021; Westphal & Loftin, 2021). Executive functioning is responsible for various cognitive tasks including planning, emotion regulation, working memory, inhibition control, and decision-making (Happé et al., 2006; O'Hearn et al., 2008). Difficulties in executive functioning can contribute towards rigidity in thought and behaviour (Happé et al., 2006), alongside aggression and violence (Lerner et al., 2012; Westphal & Loftin, 2021). More recently, vulnerability to cybercrime, including hacking (Higham et al., 2021; Payne et al., 2019), as well as radicalisation (Walter et al., 2021), has also been associated with autistic characteristics including obsessive narrow-focused interests, deficits in consequential thinking, rigidity of cognitive thinking, problem-solving abilities and abstract thinking.

It is also important to explore other potential explanations for heightened criminal justice system involvement for autistic individuals. For instance, experimental research has found that autistic mock suspects tend to provide less information supporting their innocence (Bagnall et al., 2023; Young & Brewer,

2020). Autistic individuals may also provide accounts with fewer contextual or elaborative details, particularly during free recall (Henry et al., 2020), and may include fewer explicit references to others' mental states or causal interpretations (Harvey et al., 2023). However, such differences may reflect variation in communication style rather than underlying cognitive difficulty. Nonetheless, research suggests that overall narrative structure and coherence are broadly comparable to those of non-autistic individuals, and recall is not inherently less accurate (Henry et al., 2020). These presentations may be misinterpreted as deceptive and are further compounded by verbal and non-verbal behaviours commonly mistaken for signs of deception, e.g. lack of eye contact, difficulties answering questions, and fidgeting (Lim et al., 2022; Logos et al., 2021; Wallace et al., 2022). These factors, in turn, may trigger repeated questioning (Gudjonsson, 2007), creating additional barriers in communication (O'Mahony et al., 2012), and, potentially, false confessions (Gudjonsson, 2021). Additionally, a lack of awareness of an individual's autism diagnosis by police officers may hinder their ability to adapt their communication effectively (Salerno & Schuller, 2019).

## Learning Disability

### *Definition*

The World Health Organisation (2022) defines learning disability as "a significantly reduced ability to understand new or complex information and to learn and apply new skills" (impaired intelligence). This results in a reduced ability to cope independently (impaired social functioning) and begins before adulthood with a lasting effect on development. Individuals with a learning disability can experience difficulties absorbing new information, learning new skills, remembering and processing information, problem solving and developing coping skills in novel situations (Marshall-Tate et al., 2019). Moreover, those with learning disabilities may present difficulties in their ability to understand verbal, written, receptive, and expressive communication. Problems with attention, concentration, and memory, alongside sensory processing, thinking styles, and hypersensitivities are also evident (Murphy, 2018).

### *Prevalence*

When examining the rates of learning disability within the criminal justice system, findings appear incongruent. Some research suggests that individuals with a learning disability appear significantly overrepresented (Hayes et al., 2007; Loucks, 2007; Murphy & Clare, 1998; Shelton, 2006). For instance, Landman (2016) noted that young people with learning disabilities are 10 times more likely to enter custody, representing 30% of young people overall. Within the wider prison population, research has suggested that this number sits at an estimated 7-10% (Landman, 2016; Talbot, 2009). However, as previously mentioned, Yu et al. (2021) noted limited differences in criminal justice involvement between autistic adults, those with a learning disability, and the general population. These inconsistencies may be attributable to differences in definitions of learning disability (Lindsay & Dernevik, 2013; Martí-Agustí et al., 2019), as well as disparities regarding the presence and/or exclusion of co-morbid neurodevelopmental disorders, including autism and ADHD (Billstedt et al., 2017; Taylor & Lindsay, 2018). Methodological shortcomings also limit the tentative conclusions that can be drawn from these studies (Holland et al., 2002; Simpson & Hogg, 2001).

## Learning Disability and Criminal Behaviour

Whilst it therefore continues to remain unclear whether individuals with learning disabilities are at an increased or decreased risk of engaging in criminal behaviour, in circumstances where individuals with a learning disability do offend, several typologies have been identified. Some literature suggests that offenders with learning disabilities are at an increased risk of perpetrating sexual offending (Sakdalan & Egan, 2014; Nixon et al., 2017). However, other research indicates an increased risk of violent offending (Fogden et al., 2016). It has been suggested that difficulties in executive functioning found in learning disability, specifically around working memory and attention tasks, may explain offending behaviours (Ogilvie et al., 2011). Difficulties related to impulsivity are also considered a risk factor for engaging in anti-social behaviour (Bexkens et al., 2014). Moreover, those with learning disabilities appear more vulnerable to peer pressure, therefore they may be more easily persuaded to engage in criminal behaviour by anti-social peers (Greenspan et al., 2011). Individuals with learning disabilities also appear to be at an increased risk of making a false

confession (Gudjonsson & Joyce, 2011). Finally, it is also important to note that many criminogenic risk factors well documented within the literature, including low socioeconomic status, limited social support, poor living environment, and lack of structured daily activity, are more commonly found in individuals with a learning disability (Andrews & Bonta, 2010; Camilleri & Quinsey, 2011).

It is also important to examine other potential explanations for heightened criminal justice system involvement for individuals with a learning disability. Identification of a learning disability often depends on obtaining adequate information at the first point of contact, which can be particularly challenging for those diagnosed with a "borderline" learning disability. Failure to correctly identify these individuals may lead to insufficient support during questioning (Kebbell et al., 2001), and an increased likelihood of incarceration (Howard et al., 2015). Moreover, research suggests that individuals with learning disabilities are more likely to be caught, to stand trial, and to receive prison sentences (Hyun et al., 2014). Building on this, it has been argued that individuals with a learning disability may be overly acquiescent and suggestible (Gudjonsson & Henry, 2003), prone to appeasing others (Talbot & Jacobson, 2010), and more likely to falsely confess (Murphy & Clare, 1998).

## Experiences of Autism and Learning Disability and the Criminal Justice System

An abundance of research highlights that disadvantage can be acutely felt by autistic and learning-disabled individuals across all stages of the criminal justice process. This includes initial arrest by the police, through to sentencing, conviction, imprisonment, and release (Slavny-Cross et al., 2023). Of concern, these individuals often experience poorer treatment outcomes and harsher punishments (Foster & Young, 2022). They are also more likely to encounter longer secure admissions (Hare et al., 1999). Those with autism have been found to be five times more likely to experience restraint and three times more likely to have been managed within the segregation unit (Talbot, 2011). Moreover, individuals with learning disabilities and those with autism appear more vulnerable to experiencing adverse mental health difficulties, in addition thoughts of self-harm and suicide are also higher (McCarthy et al., 2019). Greater exposure to exploitation, abuse, victimisation and bullying are further recognised (Murphy &

McMorrow, 2015; Talbot, 2009). Worryingly, staff have reported responding no differently, nor adapting their practice, to support the needs and requirements of those with learning disabilities and autism compared to those of neurotypical peers (Murphy & McMorrow, 2015). This may be attributable to limited access to appropriate resources, alongside fewer training opportunities (Schacht & Monihan, 2004).

**Autism, Learning Disability, and Communication**

Whilst autistic individuals and those with learning disabilities face many significant barriers to engagement across the criminal justice pathway, a less researched area that warrants further attention is the field of communication (Dickie et al., 2018). Autism and learning disabilities both affect communication in ways that are similar, yet distinct. Understanding and disentangling these differences is crucial for developing appropriate support within the criminal justice system.

Autism often includes difficulties in social understanding and non-verbal communication. Those with autism may struggle to understand social cues, interpret non-verbal communication including facial expressions, body language, or tone of voice, and experience difficulties engaging in reciprocal conversation. In addition, autistic individuals may present difficulties in spoken language, including speech delays or impairments.

Conversely, those with a learning disability often face challenges in specific areas, such as reading, writing, or cognitive skills, which can impact communication capabilities (World Health Organization, [WHO], 2022). Whilst social understanding and non-verbal communication are core features of autism, in learning disabilities, challenges are often related to expressive or receptive language difficulties (Hobson, 2024). This can make it difficult to communicate with and understand others. Individuals with a learning disability may also present challenges in non-verbal communication, because of difficulties processing social information due to cognitive limitations. For example, they may miss social cues or misunderstand body language and facial expressions.

When examining similarities, both autism and learning disability can overlap in communication challenges, particularly surrounding complex and abstract

language. Both may also find it challenging to express themselves and their needs clearly (Tager-Flusberg & Kasari, 2013).

**Theories of Communication in Autism**

The Central Coherence Theory (Happé, 1999) conceptualises autism as the reduced ability to integrate globally meaningful information to form higher-level understanding. Rather, autistic individuals tend to process information in a more localised way. This can make it difficult for autistic individuals to integrate different types of information needed to understand social cues, implied meaning, or social nuances (Happé, 1999; Happé & Frith, 2006).

Alternatively, proponents of the Theory of Mind Model (Baron-Cohen et al., 1985) view socio-communicative difficulties seen in autism as stemming from challenges in attributing mental states to oneself and others (Baron-Cohen, 1995; Baron-Cohen et al., 1985). The ability to interpret others' mental states lies at the foundation of interpersonal communication (Matthews et al., 2018). During verbal communication, autistic individuals may find it difficult to understand implied meaning (Wilson & Bishop, 2021), non-literal language (Cardillo et al, 2021), and maintaining reciprocal conversation (Jones & Schwartz, 2009). These challenges can result in difficulties interpreting what others are thinking or feeling, thereby leading to misunderstandings during social interactions.

Deficits in executive functioning are also thought to present barriers to verbal communication in autistic individuals (Eigsti et al., 2011). Executive functioning involves goal-directed cognition (Zelazo & Muller, 2011). This theory recognises cognitive challenges in planning, flexibility, working memory, self-monitoring, and inhibitory control (Ozonoff, 1991). These challenges can make it difficult to manage the flow of everyday conversation, taking turns appropriately, and staying on topic. Related to this, it has been suggested that autistic individuals present with limitations in recall of autobiographical (McDonnell & Nuttall, 2018) and episodic information (Griffin et al., 2022). This is important in the recollection of personally experienced events in a range of settings, including criminal justice contexts (Norris et al., 2020). Reduced working memory further plays a key role in the quantity and relevance of information offered by autistic individuals during verbal communication (Baddeley, 2003; 2010).

The Social Motivation Theory (Chevallier et al., 2012) suggests that autistic individuals may present reduced intrinsic motivation to engage in social interactions. This may be misinterpreted by others as disinterest or result in them being perceived as socially detached.

Finally, The Double Empathy Problem (Milton, 2012) suggests autistic and non-autistic people experience and interpret the world differently, leading to mutual challenges in empathy and understanding of one another. Consequently, this can result in a breakdown of social understanding and communication.

## Theories of Communication in Learning Disability and Parallels and Distinctions with Autism

It is important to recognise that whilst communication difficulties seen in autism can also parallel those seen in learning disability, key differences lie in their underlying cognitive profiles (Tager-Flusberg & Joseph, 2003). In learning disability, difficulties appear to arise from global cognitive or language impairments. Conversely in autism, communication difficulties reflect differences in social-cognitive processing styles.

When considering Theory of Mind, difficulties in this are a core feature of autism. However, for individuals with a learning disability, whilst theory of mind may be delayed, this delay appears to be secondary to overall cognitive developmental delay rather than a primary social-cognitive difficulty (Tager-Flusberg & Joseph, 2003). Similarly, the Central Coherence Theory appears less applicable to learning disability as it involves broader cognitive impairments and is applied mainly to the profile of autism (Happé & Frith, 2006). Executive functioning difficulties are important in both autism and learning disability, although in learning disabilities, these challenges relate more closely to general learning and memory deficits (Pennington & Ozonoff, 1996). Regarding social motivation, individuals with learning disabilities often experience social difficulties related to cognitive and language delays rather than reduced intrinsic social interest (Dykens, 2000). Finally, the Double Empathy Problem has been less closely linked to learning disabilities within the current literature field (Bolis et al., 2017).

## Impact of Communication Barriers on engagement in the CJS

Autistic individuals, or those with a learning disability, may find it difficult to recognise and respond to information communicated by others. When combined with challenges communicating their own experiences and emotions, this can create significant barriers between individuals and professionals. Consequently, professionals may not be able to provide appropriate support suited to an individual's needs (Lewis et al., 2016; Newham et al., 2019; Vinter et al., 2023), placing them at a severe disadvantage (Hellenbach, 2012; Jones & Talbot, 2010). This can elicit intense distress, fear, or confusion for individuals, and can manifest as anger or aggression as a form of expression (Talbot, 2007). In these instances, professionals may misinterpret individuals' difficulties in communication as being aggressive, or non-compliant, thereby resulting in harsher consequences (Kesherim, 2023). In addition, individuals with social communication difficulties are known to be more likely to socially isolate themselves (Patterson, 2015). This can often contribute to mental health decline, alongside increased experiences of distress, depression, anxiety, and embarrassment (Talbot, 2007; Woodhouse et al., 2024). Autistic individuals, and those with learning disabilities, may also find it difficult to communicate to staff their experiences of bullying, or exploitation, which we already know are high within these populations. Therefore, again, they may not receive adequate or appropriate support and may be placed at a further significant disadvantage (Lewis et al., 2015).

## What Can We Do to Support Vulnerable Individuals?

One way to support the communication needs of autistic and learning-disabled individuals throughout the court pathway is the provision of special measures. Several support measures, broadly referred to as 'special measures', are available under Part Two of the Youth and Criminal Justice Evidence Act (YCEA, 1999) in England and Wales. In Northern Ireland, this provision is available under the Criminal Evidence Order 1999, and in Scotland, the Criminal Procedure Act 1995. This legislation introduced several special measures permitting the use of adjustments for 'vulnerable and intimidated' witnesses when giving and providing evidence in criminal trials, with the aim of improving the quality of evidence presented (Fairclough, 2020). This applies to those under 18 or adults presenting with mental health or physical or learning disabilities, or

intimidated witnesses (those in fear or distress in connection with testifying in the proceedings).

Special measures include screening witnesses from the accused, evidence given by live link, evidence given in private, removal of wigs and gowns, video recorded evidence in chief, video recorded cross-examination or re-examination, examination of a witness through an intermediary, and the use of communication aids (YJCEA, ss23–30). However, vulnerable defendants are not eligible for special measures under this statutory scheme. Currently, vulnerable defendants are only supported by way of ad hoc statutory provisions (live link) and case law (screens and intermediaries). However, these unequal provisions continue to act as a barrier to effective participation and increase the risk of miscarriages of justice (Fairclough & Greenwood, 2023). This perhaps reflects how poorly understood the needs of vulnerable defendants are.

Further exploration into supporting the communication needs of autistic individuals, and those with learning disabilities, across their care and engagement with the criminal justice system, is therefore paramount. Reflecting the shift towards the acceptance of the social model of disability (Oliver et al., 1983), this thesis uses the terms “autistic" or “learning disability” rather than "vulnerable”. Although the relationship between conceptualisations of vulnerability and disability in relation to defendants remains under-researched (Tidball, 2024), it is argued that while labelling autistic individuals and those with a learning disability as “vulnerable” may raise awareness of their needs, it is also problematic. Vulnerability and disability belong to distinct categories, governed by different policies, procedures, and outcomes (Tidball, 2024). Consequently, framing someone as “vulnerable” risks overlooking their rights as disabled people within the criminal justice system.

**Aims of Thesis**

This thesis offers a comprehensive exploration into the use of special measures and bespoke communication tools to support autistic and learning-disabled individuals in communicating and engaging with the criminal justice system. To achieve this, this thesis aims to provide the following:

- To introduce the current literature on the experiences of autistic individuals, and those with a learning disability, in contact with the criminal justice system, including barriers to communication and special measures available to support fair and effective engagement.
- To provide a systematic review synthesising current evidence on vulnerable witnesses' first-hand experiences of using special measures in the courtroom.
- To evaluate and critique jury simulation methods- the most widely used methodology in studying jury decision-making outcomes.
- To explore the effect of autism diagnosis disclosure and the presence of an intermediary, on perceptions of guilt, sentence length, criminal intention, legal responsibility, and moral responsibility of an autistic defendant.
- To provide a case study exploring the use of positive behavioural support and bespoke mood cards to aid communication in a forensic inpatient with a learning disability.
- To consider overall findings, implications for research and practice, strengths and limitations, and recommendations for future research.

**Structure of the Thesis**

This thesis is comprised of six interrelated components. Chapters Two to Five present a systematic review, a critique of jury simulation methods, an empirical research study, and a case study. Chapter One introduces the current literature on the experiences of autistic and learning-disabled individuals' contact with the criminal justice system. The chapter identifies existing provisions of support, highlighting gaps warranting further exploration, which this thesis seeks to address. Chapter Two builds on the challenges identified in Chapter One by presenting a systematic review synthesising current evidence on vulnerable witnesses using special measures in the courtroom. While the systematic review in Chapter Two explores what research exists on special measures, Chapter Three considers how reliable and valid this evidence is, particularly where it stems from jury simulation studies. In response to the gaps identified within the literature, Chapter Four presents an empirical study exploring the influence of autism diagnosis disclosure and supporting information, intermediary support,

and their combination, on jurors' attributions of guilt and leniency towards an autistic male defendant. Building on the empirical concerns raised in Chapters One through Four, Chapter Five offers a real-world case study describing the practical application of two communication tools – mood cards and a positive behavioural support intervention, with a female forensic inpatient diagnosed with a learning disability. Finally, Chapter Six discusses the findings, implications for research and practice, acknowledges strengths and limitations, and critically considers recommendations for future research.

***Chapter Two***

This chapter presents a systematic review. To date there has been no published systematic review exploring witnesses' first-hand experiences of using special measures in the courtroom. Therefore, the aim of this systematic review is to synthesise the current evidence on vulnerable witnesses' experiences of using special measures at court. After screening 153 titles and abstracts, 16 were fully considered, of which 14 papers met the inclusion criteria and were quality assessed. Taken together, findings of this review suggest that special measures appear to be a valuable tool in providing support to vulnerable or intimidated witnesses and enable them to give their best evidence. The need for greater intervention to ensure individuals understand questioning during cross-examination, alongside positive views towards the use of intermediaries and communication aids, are recognised. In addition, it is tentatively suggested that pre-trial visits may hold greater value for vulnerable third-party witnesses, however in the case of vulnerable witnesses who are also victims, there appears to be a greater preference towards measures designed to shield the defendant from the accused, such as screens, video-link, or pre-recorded evidence. Findings therefore highlight the need for measures to be tailored, not only to individuals' specific cognitive, emotional, and communicative needs, but also to their legal role (i.e., whether the individual is a victim or a witness). However, these findings should be interpreted with caution, given the heterogeneity of included samples and the challenges in distinguishing between victim-witnesses and third-party witnesses within the current literature.

***Chapter Three***

This chapter provides a critique of jury simulation methods, the most widely utilised methodology within jury decision-making research. The aim of this critique is to critically appraise mock jury simulation research in providing valid and reliable results. This methodology is appraised in terms of its internal, external, ecological, and construct validity, as well as reliability. The analysis highlights how methodological choices should align with the nature of the research question (whether legal versus psychological), as well as the intended audience (e.g., academic, applied, policymakers etc.).

***Chapter Four***

This chapter details a mixed methods empirical study exploring the effect of autism diagnosis disclosure and an intermediary on perceptions of guilt, sentence length, criminal intention, legal responsibility, and moral responsibility of an autistic defendant. The following hypotheses are investigated:

***Primary Hypotheses***

Participants who are provided with information about an autism diagnosis, an intermediary, or both, will report lower levels of perceived defendant guilt, recommend shorter sentence lengths, and assign lower ratings of criminal intention, moral responsibility, and legal responsibility, compared to participants who receive no such support information.

***Secondary Hypotheses***

Additionally, this study will explore the influence of participants' openness, awareness, and level of contact with autism, on jury decision-making. Given the exploratory nature of these analyses, no directional hypotheses are proposed. Finally, the research will also examine participants' qualitative responses regarding their attributions, to gain deeper insight into the decision-making processes within this context.

All participants completed three questionnaire measures designed to explore their openness, awareness, and level of contact with autism. Following this, participants were quasi-randomised to one of four experimental conditions: (1) Autism diagnosis disclosure, (2) Intermediary, (3) Both autism diagnosis disclosure and an intermediary, and finally (4) No special measure. They were then presented with a stalking case vignette, court-summary, and cross

examination. Following this, participants returned judgements of guilt, provided a recommended sentence length, as well as attributions of criminal intention, legal responsibility, and moral responsibility. The findings suggest that neither the provision of an autism diagnosis and supporting information, nor the presence of an intermediary, significantly affected whether participants judged the defendant guilty or not. Similarly, isolated judgements of criminal intention, moral responsibility, and legal responsibility were not strongly influenced by these factors; however, when combined, they did affect the overall pattern of participants' attributions.

***Chapter Five***

Chapter five offers a real-world case study describing the practical application of two communication tools – mood cards and a positive behavioural support (PBS) intervention for a female forensic inpatient diagnosed with a learning disability. Overall, results suggest that the introduction of bespoke mood cards and a PBS plan was effective in reducing the frequency and severity of aggression and self-harming behaviour, and there was no return to baseline levels up to eight months following intervention. Positive improvements in overall psychological well-being, as measured by the CORE-10, were maintained between one and two-month follow-up periods. Findings from this exploratory case study highlight how visual communication tools can enhance the effectiveness of behavioural interventions, demonstrating the core role that communication plays, particularly in autistic and learning-disability populations.

## Rationale for Chapter Two

Chapter Two presents a systematic review exploring the existing evidence on vulnerable witnesses' experiences of using special measures in the courtroom. This review is crucial within the context of Chapter One, which highlights the ongoing barriers faced by autistic and learning-disabled individuals in navigating and engaging with the complexities of the criminal justice system. Notably, to date, no published systematic review has synthesised witnesses' first-hand experiences of using special measures in the courtroom, identifying a significant gap in the literature that warrants further investigation.

These findings lay important theoretical and practical foundations for subsequent chapters of the thesis. Firstly, they inform the methodological critique presented in Chapter Three, which examines the reliability and validity of the existing evidence, particularly that derived from jury simulation studies. While Chapter Two explores *what* research exists on special measures, Chapter Three considers *how* reliable and valid this evidence is.

Furthermore, the findings from this review also underpin the design and justification of the empirical study in Chapter Four, by highlighting interventions (e.g., intermediary support, diagnostic disclosure etc.) that warrant further exploration. Finally, the findings also link to Chapter Five, which presents a clinical case study examining the wider application of communication tools, including mood cards and positive behavioural support (PBS), beyond the scope of court.

Ultimately, this systematic review supports the thesis's overarching goal of improving communication and engagement for autistic and learning-disabled defendants within the criminal justice system by providing an informed, evidence-based starting point for advancing inclusive courtroom practices.

# Chapter Two:

# Vulnerable witnesses' experiences of using special measures in court: A Systematic Review


## Abstract

Several support measures, broadly referred to as "special measures" are available under Part II of the Youth Justice and Criminal Evidence Act (YJCEA, 1999) in England and Wales, to provide adaptations in the process of giving and collecting evidence in criminal trials for vulnerable or intimidated witnesses. However, there is a significant paucity of literature exploring witnesses' first-hand experiences of using special measures, and this has yet to be explored systematically. Therefore, the aim of this systematic review is to synthesise the current evidence on vulnerable witnesses' experiences of using special measures in the courtroom. Five electronic databases, grey literature, unpublished results, and reference lists were searched. After screening 153 titles and abstracts, 16 were fully considered, of which 14 papers met the inclusion criteria and were quality assessed. The findings of this review suggest that special measures appear to have a positive impact on witnesses' experiences when appropriately implemented. The need for greater intervention to ensure individuals understand questioning during cross-examination, with positive views towards the use of intermediaries and communication aids, is recognised. In addition, it is tentatively suggested that pre-trial visits may hold greater value for vulnerable third-party witnesses, however in the case of vulnerable witnesses who are also victims, there appears to be a greater preference towards measures designed to shield the witness from the accused, such as screens, video-link, or pre-recorded evidence. This highlights the need for measures to be tailored and person-centred, not only to individuals' specific cognitive, emotional and communicative needs, but also their legal role (i.e., whether the individual is a victim or a witness).


**Keywords:** Witnesses, Vulnerable, Special Measures, Court, Communication, Support

# Introduction

## Background

The need for greater support to assist vulnerable witnesses when providing evidence in court was first highlighted in the Home Office report *Speaking Up for Justice* in 1998. This report suggested a coherent scheme to improve the treatment of vulnerable and intimidated witnesses to enable them to give their best evidence. The report set out a series of 78 recommendations including: improved identification of vulnerable or intimidated witnesses; greater communication regarding the needs of witnesses; the use of appropriate interview methods and pre-trial support; and the use of special measures.

Part II of the Youth Justice and Criminal Evidence Act 1999 (YJCEA) made available several special measures, aiming to improve the quality of evidence provided by vulnerable or intimidated witnesses. Under this legislation, vulnerable witnesses are defined as those under 18, witnesses with a physical disability, mental disorder, or other significant impairment of intelligence or social functioning, as well as intimidated witnesses (those in fear or distress in connection with testifying in the proceedings). Automatic eligibility for special measures is also available for witnesses of sexual offences under s. 17(4) of the YJCEA. However, it is important to note that vulnerable defendants are not eligible for special measures under this statutory scheme.

Special measures include: screens (screening witnesses from the accused); video-recorded evidence-in-chief (allowing an interview with a witness to be video-recorded before the trial); live television link (allowing a witness to give evidence remotely from the courtroom); clearing the public gallery of the court (so that evidence can be given in private); removal of wigs and gowns in court; allowing the witness to use communication aids (e.g. an alphabet board); video-recorded pre-trial cross-examination and re-examination (allowing a witness to be cross-examined or re-examined before the trial about their evidence and this video recording shown in court instead of live cross examination); and intermediaries (to help a witness communicate with legal representatives and the court).

Additional measures, not required under legislation, include pre-court visits, a supporter in court, the use of escorts, liaison officers, separate waiting areas, and the use of pagers. In the case of vulnerable defendants, the current support is limited by way of ad hoc statutory provisions (live link) and case law (screens and intermediaries).

**What does the existing literature tell us about the impact of special measures?**

Given the significance of these special measures, the exploration of their impact is crucial, from both the perspective of criminal justice professionals and vulnerable witnesses. From the perspective of criminal justice professionals, many acknowledge the contribution special measures make towards achieving best evidence (Victims' Commissioner, 2021). Burton et al. (2006) found that 97% of police, all Crown Prosecution Service staff, 80% of court staff, and 93% of those from the witness service interviewed felt that witnesses were better supported with the provision of special measures. Most notably, overwhelming support for the intermediary scheme is recognised (Henderson, 2015). As one expert identified, "Registered Intermediaries are the single biggest improvement in the criminal justice system over the last thirty years" (Poppleton & Molina, 2021). Positively, many police view the intermediary system as an 'essential service', 'extremely useful', and believe it to have facilitated best evidence from witnesses who otherwise would not have been heard (Department of Justice, 2016). These positive benefits also appear to be echoed in feedback from carers of vulnerable witnesses (Department of Justice, 2016).

Similarly, the benefits of the implementation of special measures appear reflected in vulnerable witnesses' feedback on their experiences. When criminal justice professionals are made aware of witnesses' needs and subsequently take steps to ensure they are supported and understood, witnesses report feeling respected and listened to (McLeod et al., 2010). Supported individuals also describe feeling less anxious, depressed, scared, or intimidated (Hamlyn et al., 2004). Indeed, one third of witnesses reported feeling unwilling, or unable, to give evidence without the use of special measures (Hamlyn et al., 2004).

Aligning with the views of criminal justice professionals, positive attributions towards intermediaries and pre-trial visits are also expressed by vulnerable witnesses. Pre-trial visits can support individuals to feel more confident and to know what to expect in advance (Hamlyn et al., 2004), alongside easing nerves and allowing for familiarity with provisions (e.g., live link). The intermediary scheme further supports vulnerable witnesses by advocating for the use of evenly paced questions, allowing time to reflect and answer, alongside the avoidance of harsh and aggressive questioning approaches. These are all recognised as important in supporting communication in vulnerable witnesses (Baverstock et al., 2016; Hunter et al., 2013).

Nonetheless, limitations and barriers to the effective use of special measures are also critically acknowledged. Feedback suggests that often vulnerable or intimidated witnesses are not made aware of the special measures available to them (Hamlyn et al., 2004; Plotnikoff & Woolfson, 2009; Stern, 2010), which could perhaps explain why the uptake of measures has been found to be low (Franklyn et al., 2012). In addition, many indicate that they are not involved in the decision-making process, thereby resulting in a lack of choice (Plotnikoff & Woolfson, 2004).

As an example, it appears that screens, video link, and pre-recorded evidence are most likely to be wanted, but not offered (Wood et al., 2015). Moreover, emerging evidence suggests that a particularly high level of unmet need exists for measures that result in the witness avoiding seeing the defendant, such as screens or live link (Hamlyn et al., 2004). This could be understood as protecting witnesses' identity and providing physical distance from the defendant, as well as from others in the courtroom. Feedback suggests that awareness of being able to avoid contact with defendants supports some witnesses to continue with the case, when they otherwise might not have done so (McLeod et al., 2010). However, criticisms surrounding a lack of awareness that screens could be used in addition to other measures, such as live link (Baverstock, 2016), or that those giving evidence via live link will still be visible to all in the courtroom (Franklyn et al., 2012), are noted. Difficulties in understanding the complexity of legal language, including jargon, long words, comprehension, complexity, style of questioning, and pace of questions also appear problematic for witnesses and

are often perceived as intended to confuse witnesses or impede recall (Baverstock, 2016).

Moreover, practically, Plotnikoff and Woolfson (2004) found that many witnesses only viewed their videotaped statement for the first time at court, which some found distressing, and that they would have found viewing this earlier helpful. Poor technology and facilities have also been found to hinder witness satisfaction. This includes small live link rooms, lack of child-friendliness, difficulties viewing screens, faulty live links, lack of screens, and difficulties playing pre-recorded evidence (Majeed-Ariss et al., 2021; Plotnikoff & Woolfson, 2009). This can often result in the postponement of cases and give rise to high levels of undue stress for witnesses (McLeod, 2010).

**Aims and Objectives**

Taken together, the available literature suggests that special measures appear to be a valuable tool in providing support to vulnerable or intimidated witnesses, enabling them to give their best evidence. However, the importance of ensuring that they are appropriately implemented and communicated is paramount. To ensure that vulnerable witnesses are equally able to participate in court and provide their highest-quality evidence, there is a significant need for a research-informed approach. Nonetheless, to date, there has been no published systematic review exploring witnesses' first-hand experiences of using special measures.

Therefore, the aim of this systematic review is to synthesise the current evidence on vulnerable witnesses' experiences of using special measures in the courtroom. This will serve to provide an overview of the underpinning research evidence to assist criminal justice practitioners in making informed decisions when providing adaptations for vulnerable witnesses, ensuring fair participation in court. This research also provides opportunities for training, policy and practice implications and supports awareness, knowledge, and guidance for vulnerable witnesses regarding the adaptations available to them. Finally, the findings of this review may also make a powerful argument for these measures to be extended to defendants, given that the provision for defendants remains in its infancy and is limited to ad hoc statutory provisions and case law.

## Method

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009, 2015) were applied to this review for the process of screening and selecting studies. Details of the protocol were registered on PROSPERO at the National Institute for Health Research in the United Kingdom and can be found at the following link: https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=384228

### Search Strategy: Sources of Literature

Searches were limited to references published from 1999 onwards, as special measures were introduced under the Youth Justice and Criminal Evidence Act (YJCEA) from that date. Relevant publications were acquired using the following five electronic bibliographic databases:

- PsycINFO (Completed on 08/03/2023)
- PubMed (Completed on 08/03/2023)
- Criminology Collection (ProQuest) (Completed on 08/03/2023)
- Web of Science (Completed on 08/03/2023)
- Campbell Collaboration (Completed on 25/02/2023)

Given the aims of the review, and to limit publication bias, selected publishing, grey literature and unpublished results were also included in the search. Unpublished theses were identified through ProQuest Dissertations and Theses A&I (Completed on 10/03/2023) and the Open Grey archive (Completed on 11/03/2023). The reference lists of all retrieved studies were also searched and considered in line with the inclusion and exclusion criteria (completed on 15th, 18th, and 20th March 2023).

### Search Strategy: Search Terms

Numerous combinations of search terms were explored to ensure the most effective search strategy. The following were identified through scoping searches of relevant literature and applied to all databases (with modifications to meet the requirements of each database due to field differences, see Appendix A for example search syntax).

(Witness* OR vulnerable OR intimidated OR eyewitness*)

AND

(Special measure* OR adaptation* OR support OR intervention* OR Intermediar* OR communication* OR adjustment*interpersonal communication*)

AND

(Court* OR Courtroom* OR Cross-examin* OR hearing* OR trial*)

**Study Selection**

Pre-defined inclusion and exclusion criteria were applied to studies. These were operationalised using the Population, Intervention, and Outcome (PIO) search framework (see Table 2.1 below). Studies were chosen to proceed through the quality appraisal stage based on the fulfilment of all the inclusion criteria. The population was limited to vulnerable or intimidated witnesses. This excluded any studies on defendants, given that their access to special measures provisions remains limited, thus, highlighting the need to explore this population separately. Given the relatively limited research in this area, this review was more inclusive than exclusive. As such, no other criteria (such as outcome, methodology or design), were stipulated. Limits were not set on language to avoid publication bias. Included studies were then quality assessed. Non-included studies can be found in Appendix B.

**Table 2.1**

*Definitions of Inclusion and Exclusion Criteria based on the PIO framework*

| PIO | Inclusion Criteria | Exclusion Criteria |
|---|---|---|
| Population: Vulnerable/Intimidated witnesses | | |
| | • Witness | • Defendants (includes accused, offender, and perpetrator)<br>• Victims |
| Intervention: Special Measures | | |

| | | |
|---|---|---|
| | • Any Special Measure to collect and receive evidence in court | • Accommodations used in legal proceedings prior or post court (e.g., police interviewing, prison). |
| Outcome: Any outcome related to participation in court | | |
| | • Participation in court proceedings | |

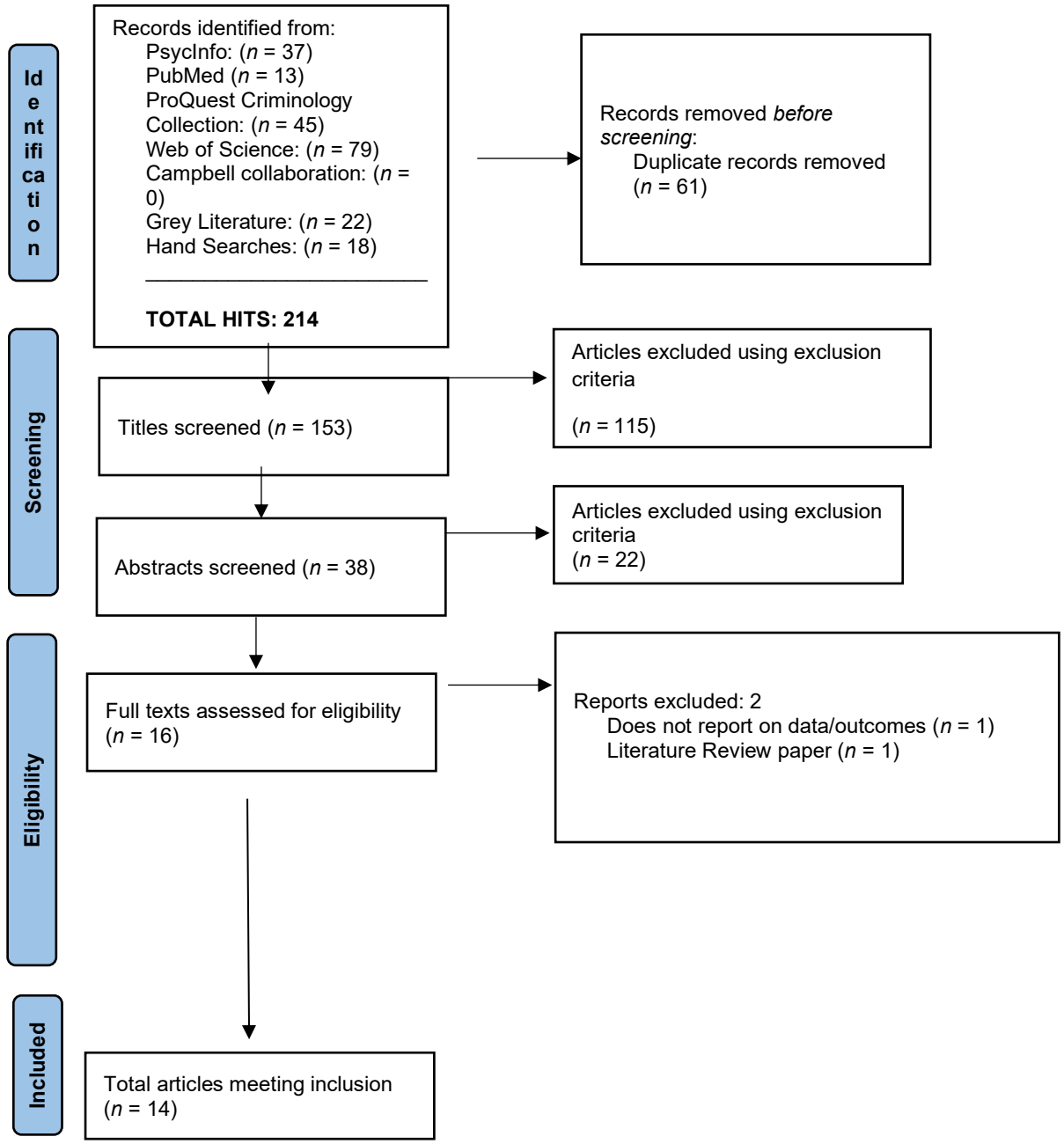



**Figure 2.1**

*Systematic Review Search Strategy*

**Quality Assessment**

Quality assessment of the remaining included studies was conducted using checklists from the Critical Appraisal Skills Programme (CASP, 2018, see Appendix C). The CASP is a validated and widely accepted tool that critically examines the validity and rigour of qualitative papers to ascertain their perceived value. This assessment is endorsed by Cochrane and the World Health Organisation for use in qualitative evidence synthesis (Noyes et al., 2018). This tool was deemed appropriate to use because it aligns with the methodology of the articles.

A full-text review assessing the quality of all included studies was conducted by the first author with a second reviewer (a Trainee on the Forensic Psychology Doctorate course) independently assessing the quality of 20% of the studies.

Each paper obtained was appraised and scored using the criteria outlined within the CASP appraisal tool. Studies were not excluded based on CASP score; rather this tool was used to explore the quality of papers and their limitations. Studies were appraised based on ten areas relating to the appropriateness of the aims, qualitative methodology, research design, recruitment strategy, data collection, the relationship between researcher and participant, ethical issues, data analysis, statement of findings, and value of the research.

Studies were scored on a 3-point Likert scale (0 = condition not met, 1 = condition partially met, 2 = condition fully met), allowing them to score a minimum of 0 and a maximum of 20 points. Scores were summed to obtain an overall quality rating, with higher scores indicating better-quality studies. Quality of reporting was also assessed by summing the number of items rated 'U' (unclear or insufficient information provided), with a higher score indicating less accurate reporting.

The overall quality rating of the 14 included studies ranged from 8 to 20, with a mean rating of 15. The quality of reporting scores ranged from 0 to 5, with a mean rating of 1.2. The appraisal identified that many studies did not explicitly report their analytical method, with this item accounting for seven studies scoring low on this criterion. The rigour of the data analysis also varied, and many failed to clearly outline their recruitment strategy ($n$=2), or ethical considerations ($n$=4).

Overall, whilst there was a range of CASP scores across studies, sufficient data was provided, and findings were consistent and supported by higher-quality studies. Therefore, all studies were included in the final analyses as they collectively yielded rich data and were relevant to the research question. Quality assessment and reporting ratings of included studies are presented in Table 2.2 below.

## Table 2.2

*Quality Assessment Ratings of Included Studies (N=14)*

| Study | Aim | Methodology | Research Design | Recruitment | Data Collection | Relationship between researcher/participants | Ethical Issues | Data Analysis | Findings | Research Value | Overall Quality Rating | Quality of Reporting |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hayes et al. (2011) | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 18 | 0 |
| Baverstock et al. (2016) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 18 | 0 |
| Hamlyn et al. (2004) | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 17 | 0 |
| Hunter et al. (2013) | 2 | 2 | 1 | 1 | 1 | 1 | U | U | 1 | 2 | 11 | 2 |
| Wood et al. (2015) | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 18 | 0 |
| Plotnikoff & Woolfson (2004) | 2 | 2 | U | U | 1 | U | U | U | 1 | 2 | 8 | 5 |
| Plotnikoff & Woolfson (2009) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | U | 1 | 2 | 17 | 1 |
| Whitehead (2001) | 2 | 2 | 1 | 2 | 1 | 2 | 1 | U | 1 | 2 | 14 | 1 |
| Franklyn (2012) | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 16 | 0 |
| Criminal Justice Joint Inspection (2009) | 2 | 2 | 2 | 1 | 1 | U | U | U | 1 | 2 | 11 | 3 |
| McLeod et al. (2010) | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 19 | 0 |
| Beckene et al. (2017) | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 20 | 0 |
| Criminal Justice Inspection NI (2012) | 2 | 2 | 1 | 1 | 1 | 0 | U | U | 1 | 2 | 10 | 2 |
| Poppleton & Molina (2021) | 2 | 2 | 2 | U | U | 1 | 2 | U | 1 | 2 | 12 | 3 |

### Data Extraction

A standardised, pre-piloted pro-forma was used to extract the data from the included studies prior to synthesis (see Appendix D). This captured the following: reference, sample, method, outcome(s), quality-assessment score, and quality-of-reporting score.

## Results

### Description of Studies

The full search produced 214 records. A total of 61 duplicates were removed in EndNote X7. In the first phase, titles were screened to meet the inclusion criteria, resulting in a further 115 exclusions. In the second phase, abstracts were screened against the inclusion criteria. In total, 16 papers met the inclusion criteria, and full texts were sought. The available full texts were reviewed to determine whether these met the inclusion criteria. Two records were subsequently excluded. Reasons for exclusion included: data/outcomes not reported (n=1); and a literature review paper (n=1). This left a total of 14 included studies for data synthesis. Relevant data were extracted and organised into a Microsoft Excel spreadsheet. The key features and findings of each of the included papers are detailed in Table 2.3 below. Appendix B contains excluded studies.

### Characteristics of included studies

The total number of participants considered within this review of 14 studies was 49,093, with all studies treated as separate studies (see Table 3 below). Although all studies explored the experiences of witnesses (*n* = 14), many combined outcomes for both victims and witnesses, given that most victims who give evidence in court may also be described as witnesses. Only two papers reported exclusively on the experiences of witnesses. Therefore, it is not possible to identify the exact number of witnesses involved from many of the articles, the implications of which will be discussed later. The countries within which the

studies were conducted were England (8 studies), Northern Ireland (2 studies), England/Wales/Northern Ireland (2 studies), and England/Wales (2 studies).

**Table 2.3**

*Summary of the Results (N = 14)*

| Reference | Sample | Methods | Outcomes | Quality Assessment Score | Quality of Reporting Score |
|---|---|---|---|---|---|
| Hayes et al. (2011) | 37 young witnesses. 17 years and younger. 27 = Victims 10 = Non-Victims | Structured interviews with young prosecution witnesses. Referral forms completed by YWS staff in relation to each young witness who agreed to participate in the study. A survey questionnaire was administered to all YWS volunteers and Children's Services Practitioners (CSPs). | • Pre-trial visit mostly perceived as helpful- confident, helpful to know what to expect, some felt more worried/anxious<br>• The majority of young witnesses (82.8%, n=29) said that they had given evidence the way they wanted.<br>• Most saying they would have preferred to have given evidence in open court rather than via the TV link- may go in defendant's favour if I was not there<br>• TV Link- practice in advance<br>• unsure about the way they had given evidence, indicating that they would have preferred more discussion of the options.<br>• Video link- still see defendant- accident<br>• Scared of meeting the defendant<br>• Questions as repetitive or too long/complicated- slow down- 42.9% (n=15) reported not understanding some of the questions they had been asked and that many who had difficulties felt unable to tell the judge they had a problem<br>• More breaks, less formality, post-trial support | 18 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Baverstock (2016) | 5 witnesses who were young (12-17) and/or had a mental health condition, physical, or learning disability. | Interviews with a sample of practitioners (N = 40) involved in implementing the pilot. Interviews with a sample of witnesses who received s.28 and s.27 and their parents/carers (N=16). The research engaged directly with 5 s.28 and 3 s.27 witnesses. | • Visiting the court before the day of the cross-examination was highly valued by witnesses- prepared witnesses for 'the environment' and provides some familiarity.<br>• Although visits were valued, they did provide the opportunity for witnesses to 'try out' any of the equipment<br>• Not explained that screen could be used in combination with live link- both measures were valued as the witness did not see the defendant. The screen was valued for protecting witness identity and the live link advantageous as it provided physical distance<br>• Not all witnesses offered visit<br>• Technical difficulties- saw defendant<br>• Interviews perceived positive<br>• Support from advocate found to be reassuring<br>• Even paced questions, allowing time to reflect and answer was valued- rapid questioning viewed as intended to confuse witness or impede recall, complex/unfamiliar language interpreted as deliberately obscuring, answering repeat questions seen as forcing witness into error or to change their answer. | 18 | 0 |
| Hamlyn et al. (2004) | Phase 1 (n=552 witnesses). Phase 2 (n=569 witnesses). The majority of VIWs who took part in | Surveys of VIWs (vulnerable and intimidated witnesses) before and after implementation of the measures. | • The large majority (91%) found these visits helpful (73% 'very helpful'). When probed for why this visit had been helpful, most said simply that it had been helpful to know what they could expect in advance (81% of those finding visit helpful), while 24 per cent said that the visit helped ease their nerves and seven per cent mentioned becoming familiar with the television live link facility. | 17 | 0 |

| | | |
|---|---|---|
| | the surveys were prosecution witnesses – a round two-thirds were victims of crime and around one-third were other prosecution witnesses. The most frequently reported vulnerabilities were (in rank order for phase 2): experienced intimidation, experienced psychological /emotional problems, under 17 years, feared intimidation, victim of a sexual offence and limited | • Among the 111 (mainly child) witnesses in phase 2 who had given video-recorded evidence-in-chief, support for this special measure was very high with 91 per cent finding it helpful. VIWs finding this special measure helpful were asked why. The main reasons were: 1) Not having to appear in court (43%). 2) Easier to say things (22%). 3) Less scared (13%). 4) Helped witness to remember (12%). 5) Friendly/comfortable environment (9%).<br>• All twelve found having an interpreter or intermediary helpful.<br>• Most (87%) of those who used the live link said that the room made them feel comfortable, and 90 per cent said that they found it helpful to give their evidence in this way. The main reason given for why such a measure was useful was because they appreciated the ability to give evidence without having to see the defendant or anyone else in court.<br>• There was a fairly high level of support for this special measure with 60 per cent saying it would have been helpful, especially women (70% compared with 46% men), and those experiencing intimidation (71%).<br>• Of the small group of 32 witnesses for whom the gallery had been cleared in phase 2, most (n=30) said they found it helpful<br>• In phase 2, most VIWs for whom wigs and gowns were removed (15 out of 24) said this was helpful.<br>• A third of VIWs in phase 2 who used special measures said that these enabled them to give evidence they would not otherwise have been willing or |

| | | | | | |
|---|---|---|---|---|---|
| | physical illness/disability. | | able to give. This figure was particularly high for sex offence victims (44%).<br>• Overall, the use of special measures had increased, in particular for live television link, video-recorded evidence-in-chief, and removal of wigs and gowns.<br>• The highest level of unmet need was for measures that resulted in the witness avoiding seeing the defendant such as screens and live TV link. However, the level of unmet need among VIWs giving evidence has reduced significantly from 50 per cent to 31 per cent between the survey phases.<br>• In phase 2, VIWs using special measures were less likely than those not using special measures to feel anxious or distressed overall (63% compared with 73%), although there was no difference in the proportion of these subgroups experiencing distress inside the court (both 17%)<br>• The most commonly reported causes of anxiety were seeing the defendant in court, (mentioned by 24%) and not knowing what would happen (mentioned by 17%). | | |
| Hunter et al. (2013) | 44 prosecution witnesses, of whom 15 were also direct victims of the offence. | In-depth interviews | • Pre-trial visits appreciated<br>• Screens appreciated<br>• Cross examination difficult- Complex legal language difficult, appreciative of interventions to ensure they understood questioning/prevent hostile/aggressive questioning.<br>• Special measures positively well received- contradictory information, or did not know until the day | 11 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| Wood et al. (2015) | 7,723 interviews with victims and witnesses. 16% Victims, 70% witnesses. 14% both. | Surveys | • Pre-trial visit 'very helpful'- 71% of victims, 72% witnesses<br>• Screens- most frequently reported and found to be helpful by 85% of victims<br>• Video-link helpful- 89%- unmet need-1/5 wanted this<br>• Giving evidence by pre-recorded evidence helpful- 92%<br>• Special measures are widely desired and have a positive impact on experience<br>• Screens, video link and pre-recorded evidence most likely to be wanted, but not offered<br>• 21% of witnesses wanted to have their evidence pre-recorded, but were not offered<br>• 17% would have liked the public gallery emptied but were not told about this opportunity.<br>• More supported requested for cross-examination | 18 | 0 |
| Plotnikoff & Woolfson (2004) | 50 young witnesses | Interviews | • Eighteen said they were not given a choice about anything associated with being a witness.<br>• Ten felt they had a choice about how to give evidence.<br>• Of the 44 witnesses giving evidence by TV link, only nine said they had chosen to do so but 28 preferred this method.<br>• TV Link- unhappy about people watching from the public gallery.<br>• Eleven were critical of the lack of information and support in advance of the trial.<br>• The things young witnesses found most helpful were contact with the supporter (32 of the 36 who had such contact); the pre-trial visit (23 of the 24 who received a visit); and NSPCC Young witness pack materials (17 of the 20 who saw them). | 8 | 5 |

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| | | | • Seeing the videotaped statement for the first time was often distressing. Of the 39 witnesses who made a videotaped statement, 14 saw it before trial and almost all found this helpful. Nine who did not see their videotaped statement until trial thought that seeing it at an earlier stage would have helped them.<br>• Seventeen were upset by the idea of being seen by the defendant on the TV link. At least five had been told they could not be seen by the defendant and only found out later that this was not true.<br>• The existing provision for clearing the public gallery applies only to sexual offence cases, or where there has been or is likely to be intimidation. Even within these parameters, little use of the provision seems to have been made. Greater consideration needs to be given to case-by-case eligibility for this special measure, including where evidence is given by TV link. | | |
| Plotnikoff & Woolfson (2009) | 182 young witnesses. 122 were victims of an offence charged (67 per cent). | Interviews with young witnesses and parents. Information was also received from managers of 52 Witness Services, seven young witness support schemes and from each organisation. | • 76 (84 per cent of 91 children who visited the court before the trial) said the pre-trial visit helped them feel more confident or to know what to expect at trial<br>• Of 91 young witnesses who visited the court before trial, 20 (22 per cent of 91) were able to practise speaking on the link<br>• 48 (55 per cent) saw it for the first time at trial, of whom 35 (73 per cent) described the viewing as upsetting, funny or strange, or said that that it was hard to concentrate on it (section 6.2)<br>• 75 (85 per cent of 88) whose visually recorded statement was used as their evidence-inchief said this was helpful. | 17 | 1 |

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| | | | • 26 (15 per cent) did not give evidence the way they wanted, comprising: o 12 who used the live link o 14 who testified in the courtroom 68 (40 per cent) said there was a problem or delay because of faulty live links, difficulties in playing visually recorded statements or the lack of screens. Eight who gave evidence in the courtroom did so because the live link was not working.<br>• 33 (27 per cent) were unhappy about the defendant being able to see them<br>• 111 (65 per cent) reported one or more problems of comprehension, complexity, pace of questions that were too fast or having their answers talked over. | | |
| Whitehead (2001) | 2498 respondents: 29 per cent were victims, 58 per cent other prosecution witnesses and 13 per cent defence witnesses. Child witnesses formed 7 per cent of the sample. | Surveys | • The survey, however, showed that witnesses who had a pre-court visit were more likely to have said they were concerned about being a witness (64%) than those who had not (55%). This may suggest that visits are generally well targeted at those who have most need of them rather than the visit itself actually adds to the anxiety.<br>• Almost a quarter (23%) of victim witnesses were worried about meeting or seeing the defendant<br>• More information should be given to witnesses prior to arriving in court (1 5%) | 14 | 1 |
| Franklyn (2012) | Victims (n=19,032) | Interviews | • Victims and witnesses with a disability which limited their activities were generally more likely to | 16 | 0 |

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| | and witnesses (n=18,747) | | report being concerned than those with no disability, particularly about coming into contact with the defendant and their supporters (60 per cent compared with 44 per cent).<br>• Table 3.6 indicates that the proportion of victims and witnesses taking up special measures were low, but that where they were used, the majority of those using them felt that they helped them to give their evidence<br>• Screens to prevent them seeing the accused- 75% felt it helped them to give their best evidence<br>• A video link to give evidence from another location- 79%<br>• The opportunity to give evidence in private- 64%<br>• A video recording of an interview used as evidence- 70%<br>• An interpreter or signer- 56%<br>• An intermediary- 82%<br>• Communication aids such as an electro-larynx or alphabet board- 72% | | |
| Criminal Justice Joint Inspection (2009) | 91 witnesses. 98.9% prosecution witness- 49.4% also a victim. | Variety of approaches: Meetings with stakeholders, interviews with victims and witnesses, observations and interviews conducted in both a magistrates' | • Many witnesses who give their evidence by live video link are not aware in advance of the trial that they will be visible to all in the courtroom. This has caused upset and difficulties on the day for many of these witnesses and parents in the case of child witnesses.<br>• Pre-trial visit- little thought has been given to out of hours visits which would be easier for working witnesses.<br>• Several witnesses who would have appreciated a second court familiarization visit, particularly when the | 11 | 3 |

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| | | court and the Crown Court, interviews with police, CPS, HMCS and Local Criminal Justice Board (LCJB) representatives, file reviews | case had been delayed for a considerable amount of time<br>• Witnesses told us that pre-trial familiarisation visits, either in advance or on the day, are extremely valuable but it may be the case that visits are not 'sold' to witnesses as well as they might be. | | |
| McLeod et al. (2010) | 61 interviews with court users. Twenty-six of the court users interviewed had been victims or witnesses in criminal cases (three of whom were defence witnesses. 26 self-identified as having experience of a mental health | A range of methods and approaches were used to explore this, including:<br>• Court familiarisation visits<br>• In-depth interviews with practitioners- 143 Interviews. Interviewees were court staff (27), legal representatives (34), staff from in-court support organisations (17), public agency staff | • The judges and legal people all spoke in jargon and really quickly<br>• When legal representatives were aware of court users' needs and took steps to ensure that they understood what was happening in the courtroom and what was being said, court users reported feeling respected and listened to<br>• Court users who had taken up the offer of a pre-trial visit (criminal courts) benefited from an additional sense of familiarity with the court<br>• When special measures were used appropriately, court users found them very effective in alleviating the pressure of attending court and giving evidence. In fact, the measures had a positive impact on their overall court experience. For example, several court users reported that knowing they could avoid contact with defendants through the use of video links<br>• convinced them to continue with their case, which they would otherwise have found too stressful. The use of intermediaries also increased the court users' understanding of the trial | 19 | 0 |

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| | condition, 20 as having a learning disability, and five as having limited mental capacity. | (26), and staff from voluntary support organisations (27).<br>• In-depth interviews with court users and carers: 61 interviews with court users and 23 interviews with carers | • Successful uses of special measures included: • a video link being set up at a witness's home if they felt too nervous to travel to court; and • an intermediary enabling the court to understand a victim with severe learning difficulties.<br>• When special measures did not adequately meet court users' needs or expectations, they could actually have a detrimental effect because they interrupted proceedings and made court users feel insecure<br>• In some cases, court users gave evidence without the necessary support, or trials were postponed while special measures were organised. We found several examples where courts had made appropriate applications for special measures, but issues had arisen on the day, such as video links not working properly, or screens being forgotten, which led to case postponement. Each of these scenarios caused high levels of stress among court users at the prospect of prolonging the case further | | |
| Beckene et al. (2020) | 4 people with ID alleged victims of abuse | In-depth qualitative methods (semi-structured interviews) | • Fear of seeing the accused<br>• Difficulties with cross-examination- complexity of language- jargon, long words, style of questioning<br>• Screens preferred over video-link- video link perceived as impersonal, whereas screens the only people that can see you are the defence, prosecution, jury and judge<br>• Difficulties with role of intermediary- downgraded to chaperone | 20 | 0 |
| Criminal Justice Inspection Northern | 10 witnesses- children, older people, and | CJI conducted a number of interviews with service users. Inspectors | • Had not been given full information and/or a choice in the special measures which might be applied.<br>• Wanted to hear defendant's evidence and wasn't allowed into court- should be possible to reverse the video-link | 10 | 2 |

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| Ireland (2012) | vulnerable witnesses. Both victims and witnesses. | conducted a number of meetings with victims' representative groups and also conducted a number of direct interviews with witnesses who had used special measures. | • Still see defendant<br>• Screens preferred over video for one witness- only have to look at judge and barrister- over-reliance on the use of video recorded evidence<br>• I couldn't have given evidence without the use of special measures | | |
| Poppleton & Molina (2021) | 40 | Quantitative findings and a thematic analysis of survivors' accounts | • Responses indicated the widespread use of screens to shield the victim from the defendant whilst giving evidence (26 out of 38 cases) and pre-recorded evidence in chief (25 out of 40 cases). Other special measures were less widely used (see chart 7.2).<br>• Nearly two thirds of respondents (32 out of 51) in this group were given a choice of which special measures they would like to use in court, with ten respondents recalling that they were not given a choice and a further nine unable to recall whether they were or were not.<br>• Across all cases, one theme that emerged from these responses was a desire to be protected from the eyes of the public gallery when the survivor appeared in person and/or while evidence was presented on video<br>• There were also one or two instances of being given a screen, and no other choice:<br>• There were also one or two cases in which the survivor appeared to have been advised that appearing live had an advantage over video link | 12 | 3 |

- sense that availability of special measures was limited and having any measures or having a particular measure in place (e.g., video link) would have been welcome

## Descriptive Data Synthesis

Due to the level of heterogeneity across studies, difficulties differentiating outcomes between victims and witnesses, and the small number of retrieved studies, a meaningful comparison could not be carried out across all included studies. Therefore, while a meta-analysis was not deemed appropriate, a narrative synthesis was used. Nonetheless, some general themes and conclusions can be drawn from the data, and this offers exciting direction for both research and practice.

## Experiences of third-party witnesses

Only two studies specifically reported on outcomes exclusive to third-party witnesses. These will be explored in turn below.

Baverstock (2016) found that visiting the court before the day of the cross-examination was highly valued by witnesses, as it provided a sense of familiarity for witnesses and helped to prepare them for the environment. However, a limitation noted is that pre-trial visits did not allow witnesses to practice using any of the equipment, and not all witnesses were offered a visit. Moreover, measures that shielded witnesses from the defendant were greatly appreciated, including screens and live link. The screen was valued for protecting the witness's identity, and the live link was advantageous as it provided physical distance. However, many were not made aware that multiple measures could be used in conjunction with one another, for instance screens and live link. In addition, due to technical difficulties, there were also occasions in which witnesses were exposed to the defendant. Support from an advocate was also found to be reassuring. Finally, difficulties with complex and unfamiliar language were raised and perceived as intended to confuse witnesses or impede recall, as well as forcing witnesses to change their answers. In contrast, evenly paced questions and allowing time to reflect and answer were highly valued.

Plotnikoff and Woolfson (2004) found that 22% of witnesses were critical of the lack of information and support they received ahead of trial, with 36% reporting that they were not given a choice regarding measures available to them. As a further example, of the 44 witnesses providing evidence by TV link, only nine said they had chosen to do so. Moreover, many who provided pre-recorded

evidence saw it only for the first time in court and found this distressing; however, those who did see this in advance reported benefits. Moreover, concerns about seeing the defendant were also noted. Thirty-four percent of witnesses were upset by the idea of being seen by the defendant on the TV link and at least 10% had been told they could not be seen by the defendant, only to find out at court that this was not true. Many were also unhappy about people watching from the public gallery. However, more positively, 96% of those who received a pre-trial visit, 85% of those who received a NSPCC Young Witness Pack, and 89% of those who had contact with a supporter, found these methods helpful, thereby suggesting promise for these measures.

**Experiences of witnesses/victims combined**

Twelve studies combined outcomes for witnesses and victims. The term 'victim-witnesses' is therefore used to signify this. General themes are outlined below.

***Pre-Trial Visits***

The most widely evaluated and valued special measure across studies was that of pre-trial visits. Hamlyn et al. (2004) reported that 91% of respondents found visiting the court in advance to be helpful, with 73% of victim-witnesses perceiving this to be 'very helpful'. It appears that pre-trial visits are advantageous as they support victim-witnesses to know what to expect in advance (81%), ease nerves (24%), and allow for familiarity with the television live link facility (7%). Similarly, these benefits are paralleled in the work of Hunter et al. (2013), Wood et al. (2015) and McLeod et al. (2010) research, thereby suggesting a promising preference for this measure. However, Whitehead (2001) found that victim-witnesses who received a pre-court visit were more likely to have reported concerns about being a witness (64%) compared to those who had not received a visit (55%). Nonetheless, this difference is relatively small, and the study does not indicate whether it reached statistical significance. Additionally, the paper does not provide sufficient data to allow for independent analysis. Moreover, other victim-witnesses also noted that little thought had been given to witnesses to visit outside of hours, and several would have valued a second pre-court visit, particularly when the case had been

delayed for a considerable amount of time (Criminal Justice Joint Inspection, 2009).

### *Live link*

The use of live link also appears to be a highly valued measure by victim-witnesses. Findings suggest that the main benefit of this measure is the ability for victim-witnesses to provide evidence without the need to see the defendant or anyone else in court (Hamlyn et al., 2004; McLeod et al., 2010). Hamlyn et al. (2004) reported that most of the victim-witnesses who used the live link said that the room made them feel comfortable (87%), and they found it helpful to give their evidence in this way (90%). However, there is perhaps an unmet need for this special measure, as identified in the findings of Wood et al. (2015). The research revealed that 20% of victim-witnesses would have wanted to use the live link but were not afforded the opportunity to do so. This appears to replicate some of the earlier findings and concerns in relation to a lack of knowledge and choice of special measures. It is also important to acknowledge the drawbacks of the live link, for instance vulnerable or intimidated witnesses may still see the defendant, which can be significantly distressing for some (Hayes et al., 2011).

### *Pre-recorded Evidence*

Pre-recorded evidence appears to be another positively viewed measure. Hamlyn et al. (2004) reported that support for this special measure was very high with 91% finding it helpful. Participants' qualitative rationales for this included; not being required to appear in court (43%); easier to communicate (22%); feeling less scared (13%); it supported witnesses to remember details (12%); and finally; allowed for a friendly and comfortable environment (9%). Similar high satisfaction rates were also confirmed across studies. In Wood's (2015) study, 92% of victim-witnesses reported finding pre-recorded evidence helpful, alongside 85% in Plotnikoff and Woolfson's study (2009), and 70% in Franklyn's research (2012).

### *Screens*

Screens appear to be promising, and at times preferred, measure valued by victim-witnesses. Screens allow witnesses to be shielded from the defendant and

serve to protect the witness's identity. Hunter et al. (2013), Wood et al. (2015), and Franklyn (2012), all revealed that victim-witnesses reported that screens were beneficial and enabled them to provide their best evidence. Moreover, Beckene et al. (2020) reported that some victim-witnesses preferred screens over the use of other measures, such as video-link, as screens were felt to be more personal. Others reported benefits in only having to look at the judge and barrister and suggested an over-reliance on video-recorded evidence (Criminal Justice Inspection, 2021).

### *Cross-Examination*

Across multiple studies, findings suggest that victim-witnesses find cross-examination the most difficult. Many reported the complexity of legal language was difficult to understand, including jargon, long words, comprehension, complexity, style of questioning and pace of questions that were too fast or having their answers talked over (Beckene et al., 2020; Hunter et al., 2013; Plotnikoff & Woolfson, 2009). Many who experienced difficulties also felt unable to voice their concerns to the judge (Hayes et al., 2011). Positively, many victim-witnesses appeared appreciative of interventions designed to ensure they understood questioning, whilst preventing hostile and aggressive approaches (Hunter et al., 2013). This includes the use of an intermediary, as explored below.

### *Intermediary*

The role of intermediaries appears to be positively well received across studies. McLeod et al. (2010) found that intermediaries were perceived as useful, as they served to increase court users' understanding of the trial. Similarly, Hamlyn et al. (2004) reported that all twelve victim-witnesses shared support by an interpreter or intermediary to be helpful. These findings are mirrored in Franklyn's (2012) study, whereby 82% of victim-witnesses identified the benefits of an intermediary. However, limitations to the extent to which the role of intermediaries is understood are acknowledged. For example, one victim-witness in Beckene et al.'s study (2020) described difficulties when the intermediary was downgraded to the role of a chaperone due to the judge's lack of understanding of the witness's needs.

### *Clearing the Public Gallery*

Limited research appears to have explored the clearing of the public gallery, perhaps indicating less of a need, or awareness, for this measure. Of the little research that has sought to investigate this, Hamlyn et al. (2004) found that most victim-witnesses reported finding this measure useful. Moreover, in a report by Poppleton and Molina (2021), a prominent theme identified was a request to be protected from the public watching the trial.

### **Removal of Wigs and Gowns**

Similarly, research exploring victim-witnesses' views of the removal of wigs and gowns appear limited. Only one study in this review reported on this measure. Despite this, Hamlyn et al. (2004) shared that 62.5% of victim-witnesses, for whom wigs and gowns were removed, found this measure helpful.

### *Communication Aids*

In addition, little research has sought to explore the use of communication aids. Within this review, only one study was identified. Franklyn (2012) found that communication aids, such as the electro-larynx or alphabet board, were helpful for 72% of victim-witnesses, indicating promise for these tools. However, the extent to which these findings can be generalised across different subgroups or specific needs within the broader category of vulnerable individuals remains unclear, due to the limited research available in this area. The practical issues of electro-larynx devices and boards are also acknowledged i.e., costs, training, use, availability, etc.

### *Open Court*

There also appears to be a lack of research exploring victim-witnesses' experiences of giving evidence in open court. However, Hayes et al. (2011) reported that many victim-witnesses expressed that they would have preferred to have given evidence this way, rather than via a TV link, as it was felt that not being present may be perceived negatively and could work in the defendant's favour.

### *Additional Support*

The benefits of additional forms of support were also identified within this review. An interpreter or signer was reported to be helpful by 56% of victim-witnesses (Franklyn, 2012). More frequent breaks, less formality, and post-trial support were also highlighted (Hayes et al., 2011).

### *Other Relevant Themes*

### *Choice*

Hayes et al. (2011) found that many victim-witnesses would have preferred greater awareness and discussion of the measures available to them. In cases where special measures were offered, often individuals would have preferred alternative methods, such as screens, video link, or pre-recorded evidence, as well as giving their evidence in open court (Hayes et al., 2011; Wood et al., 2015). As an example, Wood et al. (2015) revealed that 21% of victim-witnesses preferred to have their evidence pre-recorded but were not offered this opportunity. Moreover, 17% would have liked the public gallery emptied, but were not advised of this measure. Some also felt that there should be the option to reverse measures, such as video-link (Criminal Justice Inspection Northern Ireland, 2012). Having said this, two thirds of respondents in the Victims' Commissioner report (Poppleton & Molina, 2021) said that they were given a choice of which special measures they would like to use in court, indicating involvement in the decision-making process.

### *Concerns seeing defendant*

A high level of unmet need appears to be for measures that result in the individual avoiding seeing the defendant, for example, screens or live TV link (Hamlyn et al., 2004). Hamlyn et al. (2004) revealed that 24% of victim-witnesses reported feeling anxious about seeing the defendant. Similar statistics were also identified in Whitehead's (2001) research, with approximately a quarter (23%) of victim-witnesses worried about meeting or seeing the defendant. In further support of this, Franklyn (2012) found that 60% of victim-witnesses with a disability, compared to 44% with no disability, reported concerns and anxiety about seeing the defendant in court (2012). Moreover,

many were unhappy about the defendant being able to see them when using other measures such as live link (Criminal Justice Inspection Northern Ireland, 2012), and approximately 27% in Plotnikoff and Woolfson's (2009) study.

### *Insufficient information*

Another concern identified within this review is victim-witnesses' lack of awareness and understanding of the court process. Seventeen per cent of victim-witnesses in Hamlyn et al's research (2004) were unaware of what to expect until the day of the trial. Similar concerns were also raised in Hunter's research (2013). In further support, 15% of victim-witnesses in Whitehead's (2001) study reported that more information should be given to witnesses prior to attending court.

### *Inconsistent information*

Many victim-witnesses also felt that they were given inconsistent and contradictory information. This is evidenced in the findings of Hunter et al. (2013) who reported that, whilst special measures were generally well received, difficulties with contradictory information were noted.

### *Technical difficulties*

The included studies also revealed significant technical difficulties when using special measures. Plotnikoff and Woolfson (2009) found that 40% of victim-witnesses reported a problem or delay due to difficulties when using special measures. This included faulty live links, lack of screens, and difficulties playing pre-recorded evidence. Moreover, eight victim-witnesses were required to give their evidence in the courtroom because the live link was not working. In other trials, cases were postponed due to difficulties with special measures. This subsequently resulted in high levels of stress for victim-witnesses (McLeod et al., 2010).

## Discussion

The main aim of this systematic review was to gather, review, and synthesise the current evidence on vulnerable witnesses' experiences of using special measures in the courtroom to enable them to give their best evidence. This

qualitative approach adds to the paucity of literature supporting criminal justice practitioners to make informed decisions and to provide awareness, knowledge, and guidance to vulnerable or intimidated witnesses regarding adaptations available to them. Finally, findings also provide opportunities for training, policy and practice implications.

Overall, the review yielded 14 studies. However, it is important to note that only two of these studies explicitly reported outcomes specifically for vulnerable third-party witnesses, with the remaining 12 studies combining outcomes for both vulnerable witnesses and victims. This is perhaps not surprising, given that most victims who give evidence in court may also be described as witnesses. As a result, few outcomes specifically related to vulnerable witnesses were reported. This heterogeneity makes it extremely difficult to synthesise the data from the literature or to draw conclusions that are broadly applicable to vulnerable witnesses. There are numerous reasons for this, including the wide range of special measures available, the diversity of communication needs among vulnerable witnesses, and the variety of challenges to communication posed by the courtroom environment. In addition, several further factors contribute to this complexity; variability in the implementation of special measures (e.g. differences in jurisdictions, inconsistent application of policies and guidelines, disparities in the quality or availability of equipment); the lack of standardised outcome measures (with studies evaluating effectiveness using different criteria such as quality of evidence, jury perceptions, conviction rates, witness stress levels etc.); the interaction between individual characteristics and specific measures; and the evolving legal framework and court practices over time. Given these issues, future research should prioritise the evaluation of specific interventions in defined contexts, rather than seeking to assess special measures collectively as a whole. Nonetheless, despite these limitations, this review has identified several key themes that may serve as a foundation for more targeted, intervention-specific research. These themes will be critically explored in the following sections.

One of the most striking findings of this review is that of pre-trial visits. Findings reporting exclusively on the experiences of vulnerable or intimidated third-party witnesses suggest that visiting the court before the day of the cross-examination

is highly valued. Pre-trial visits not only support individuals to prepare for the environment, but they also provide a sense of familiarity (Baverstock, 2016). Similarly, this is echoed in the findings of Plotnikoff and Woolfson (2004), who found that 96% of vulnerable witnesses who received a pre-trial visit found this helpful. However, whilst generally similar findings have been replicated in vulnerable victim-witnesses, this is not always the case. It is interesting that Whitehead (2001) found the opposite effect, in that victim-witnesses who received a pre-court visit were more likely to have said they were concerned about being a witness (64%) than those who had not (55%). In addition, Hayes et al. (2011) similarly found that some victim-witnesses who visited the court in advance felt a greater degree of worry or anxiety. It is therefore possible that not all witnesses may benefit from pre-trial visits as one might think, for instance in cases where witnesses are also victims, visiting the court in advance may trigger greater anxiety, stress, or even be re-traumatising. Further exploration of individual differences in witness types therefore warrants further investigation. Factors including the nature and context of the event witnessed, and the functioning and presentation of the witness, are equally as important to ascertain. This may inform better decision-making and provision of support.

A positive alternative, valued by both vulnerable third-party witnesses and victim-witnesses, appears to be the provision of measures designed to shield the witness from the accused. The use of video link is one such measure viewed as advantageous, in that it provides physical distance from the accused. Nonetheless, video link may not be able to communicate the same emotional experiences as actively hearing or witnessing live evidence, which may impact jurors' judgements. Video link may also require greater heuristic processing (Pezdek et al., 2010), whereby individuals generate judgements without assessing all relevant information, thereby relying instead on a limited set of cues to inform decision-making (Tversky & Kahneman, 1974). Interestingly, this review found that female witnesses appear to hold greater perceptions of the benefits of live link compared to men (Hamlyn et al., 2004). This could perhaps be explained in line with research suggesting that gender has been found to affect perceived trustworthiness ratings, in which male witnesses were seen as more trustworthy than female witnesses (Nagle et al., 2014). Therefore, it is possible that female witnesses may be more inclined to feel that their testimony

will be viewed as trusted and credible when giving it via live link rather than in-person. Certainly, providing evidence in person may elicit greater anxiety and distress, which may be inferred by members of the jury as indicative of deception. Gender differences and the use of special measures are a highly underreported area and therefore warrant further exploration in the literature.

Moreover, whilst both third-party witnesses and victim-witnesses appear to favour the use of live link, this number appears slightly higher in victim-witnesses (Franklyn, 2012), compared to third-party witnesses (Plontikof & Woolfson, 2004). This is perhaps not surprising, as for victim-witnesses, the use of live link reduces the stress and anxiety associated with confronting their accused in court, without negatively impacting the accuracy and reliability of their testimony. However, it is important to consider the drawbacks of this approach, including difficulties in building rapport, which could lead to less disclosure of information, particularly sensitive details.

An alternative approach therefore may lie in the use of screens, often favoured as they protect witness identity. In support of this, this review found that for victim-witnesses, screens were often preferred over video-link, with video-link perceived as impersonal (Beckene et al., 2020). Similarly, whilst pre-recorded evidence appears to be another positively viewed measure by victim-witnesses, concerningly, viewing the videotaped statement for the first time in court was often perceived as distressing. Therefore, it is recommended that criminal justice professionals offer witnesses the opportunity to view this in advance, to support individuals with an understanding and awareness of what to expect.

Taken together, the findings therefore suggest that perhaps pre-trial visits may be preferred by vulnerable third-party witnesses, however for vulnerable victim-witnesses, there may be a greater preference for measures that shield the witness from the defendant, for example screens, video-link, or pre-recorded evidence. However, it is noted that some witnesses were not made aware that multiple measures could be used in conjunction with one another, e.g., screens alongside live link or pre-recorded evidence. This should be encouraged by criminal justice professionals where appropriate. Similarly, this review highlights the need for courts to consider practicing measures in advance, such as video link. This is paramount to avoid unnecessary delays and the postponement of

trials, which could be significantly distressing for some witnesses. It would also be timely to explore the experiences of witnesses who use multiple measures simultaneously, and whether the effectiveness of this supersedes the use of stand-alone measures. This appears to be lacking in literature at present.

Importantly, courts should also be aware that both third-party witnesses, and victim-witnesses, appear to find cross-examination difficult. Baverstock (2016) found that many witnesses perceived rapid questioning as purposely confusing or impeding recall and repeated questioning as an attempt to force witnesses to change their responses. Similarly, in studies exploring outcomes for victim-witnesses, many felt that the questions were often leading, harsh, cold, aggressive, or manipulative (Beckene et al., 2020). However, positively, many third-party witnesses and victim-witnesses appear appreciative of interventions designed to ensure they understand questioning, whilst preventing hostile and aggressive approaches (Hunter et al., 2013). It is therefore recommended that short and simple questions be used, alongside clear question types, such as yes/no questions, and avoiding the use of tag questions. This could be further supported by the provision of intermediaries to support appropriate questioning techniques. In support of this, Franklyn (2012) found that 82% of victim-witnesses sampled found an intermediary helpful. However, given that the introduction of the intermediary scheme is still relatively new, more extensive, detailed instructions may be required from the judge regarding their role. This is crucial to avoid any negative judgements towards vulnerable witnesses which may impact the outcome of court proceedings. This could be achieved through the development and implementation of awareness training packages offered to all criminal justice professionals, as well as regular refresher or booster sessions. Examples include The Advocates Gateway Toolkits (2012-2025), which provide access to practical, evidence-based guidance on communicating with vulnerable witnesses and defendants.

Critically, lack of choice appears to be a common theme in this review. Both third-witnesses and victim-witnesses reported that they would have preferred greater awareness and discussion of the measures available to them. In cases where special measures were offered, some witnesses would have preferred alternative methods but were not afforded the opportunity. Importantly, criminal

justice practitioners should therefore be aware that not all witnesses may agree with measures offered to them, and this may result in misplaced encouragement towards unfavoured measures. Indeed, Hall (2007) advocates against viewing special measures with a 'one-size-fits-all' perspective. This highlights the importance of an individualised, tailored approach to target each witness's individual needs and preferences, thus supporting their ability to effectively participate in court proceedings to the best of their ability.

Additional positive benefits of the removal of wigs and gowns, communication aids, giving evidence in open court, use of an advocate, presence of an interpreter or signer, frequent breaks, less formality, and post-trial support were also identified by both third-party witnesses and victim-witnesses as helpful. However, their effectiveness was only explored by single studies and so could not be confirmed through supporting research. Consequently, there is a significant need for greater research to allow for comparability and reliability of results.

## Limitations and Future Research

A central limitation of this review is its exclusive focus on third-party witnesses and the exclusion of victim-witnesses. This decision was theoretically based on findings indicating that victim-witnesses differ from third-party witnesses in psychologically, procedurally, and legally meaningful ways.

### *Psychological differences*

Psychologically, research on Post-Traumatic Stress Disorder suggests that direct victims are more likely to experience symptoms such as intrusive memories, hyperarousal, and avoidance (American Psychiatric Association, 2013). Trauma exposure is also associated with disorganised or fragmented memory encoding, reduced coherence of episodic memories, and impaired chronological sequencing (Bisby et al., 2020; Brewin, 2014, 2018). These factors may contribute to inconsistencies in testimony, which risk being misinterpreted as indicators of deception or a lack of credibility (Dianiska & Meissner, 2023). Moreover, victim-witnesses may engage with legal processes from a heightened position of vulnerability, fear, or mistrust, often shaped by prior victimisation and trauma,

which can disrupt core beliefs surrounding safety and trust (Gollwitzer et al., 2015). These differences have important implications for testimony, engagement with legal processes, confidence in the justice system, and overall well-being.

### *Procedural differences*

Procedurally, victim-witnesses typically engage more extensively with the criminal justice system than third-party witnesses. Victim-witnesses are afforded formal procedural rights and support under frameworks such as the Victims Code (Ministry of Justice, 2020), which facilitates access to specialist services. Engagement with these provisions has been associated with increased perceptions of fairness, emotional support, and reduced secondary victimisation (Bradford, 2011; Campbell et al., 2001; Orth, 2002). Additionally, the emotional intensity of testifying is often greater for victim-witnesses, particularly when recalling traumatic events (Orth, 2002). As a result, their motivations may differ, with greater emphasis on validation, voice, or emotional closure, whereas third-party witnesses may be more likely to be motivated by civic or legal obligations.

### *Legal differences*

Legally, victim-witnesses and third-party witnesses hold distinct positions within the criminal justice system. Victim-witnesses are recognised as individuals who have suffered harm because of a criminal offence (Ministry of Justice, 2020). Therefore, they are entitled to a range of additional statutory rights that differ from those of third-party witnesses. This includes the right to be informed about case progression, the opportunity to submit a victim's impact statement, and access to special measures under legislation such as the Youth Justice and Criminal Evidence Act 1999, although third-party witnesses may also be eligible for such measures in certain circumstances (Ministry of Justice, 2020). These measures have been found to reduce anxiety and improve the coherence, confidence, and completeness of witness evidence (Hamlyn et al., 2004). Consequently, victim-witnesses may experience the criminal justice process differently from third-party witnesses, and therefore combining the two groups could potentially obscure important meaningful differences in the experiences and the quality of evidence provided by both groups.

However, while these distinctions provide a clear rationale for separating the two groups, this also introduces important limitations. Although this decision increases internal consistency, it does so at the expense of ecological validity, given the complexity of real-world criminal justice contexts and the reality that many third-party witnesses are also victims. Consequently, this choice limits the breadth of the findings.

A further limitation relates to the exclusion of sexual offence victims. This decision was made on the basis that they may experience the criminal justice system in psychologically and socio-legally distinct ways compared to victims of other offences. This includes increased levels of trauma-related symptomatology, disrupted cognitive schema, and increased exposure to credibility challenges within legal contexts (American Psychiatric Association, 2022; Dworkin et al., 2017; Ellison & Munro, 2017). These factors are likely to influence emotional wellbeing, as well as key cognitive processes relevant to providing testimony in court, including attention, executive functioning, and memory encoding and recall (Aupperle et al., 2012; Marr et al., 2021). Sexual offence victims also often experience increased levels of shame, stigma, and self-blame, which can negatively affect disclosure and participation in criminal proceedings (Campbell, 2008; Ullman, 2010). In addition, involvement with the criminal justice system can be highly distressing for some sexual offence victims, contributing to secondary victimisation, and in some cases, being experienced as a "second rape" (Campbell, 2008). Courtroom practices such as cross-examination have also been identified as potentially retraumatising for sexual offence victims, with implications for the coherence and consistency of witness testimony (Ellison & Munro, 2017; Henderson & Tarrant, 2015).

Moreover, sexual offences are known to be substantially under-reported (Office for National Statistics, 2025). Consequently, victims who engage with the criminal justice system may constitute an unrepresentative subgroup of sexual offence victims more broadly. In addition, research suggests that sexual offence victims may be treated differently within investigative contexts compared to witnesses who have witnessed, but not experienced, similar events. This potentially influences both witness experience and testimony (Lamb et al.,

2003). Taken together, these factors may limit comparability with victims of other crimes and introduces heterogeneity.

However, similarly, this exclusion limits the scope and generalisability of the findings. In particular, the review may not capture witness testimony processes in high-trauma contexts, where emotional impact is particularly important. Future research should aim to compare high and low trauma sexual offence victim groups to examine the extent to which trauma-related differences systematically affect outcomes.

Further limitations arose from deviations from the predefined protocol. Although victim-focused studies were excluded during the search and screening stages, several of the included studies contained victim-witness data. This introduces potential bias, risks misrepresenting the conclusions, and undermines the internal validity of the review. Consequently, the findings cannot be reliably generalised exclusively to third-party witness contexts.

The inclusion of mixed samples was driven by the limited availability of studies that met the inclusion criteria. Consequently, inclusion criteria were broadened to incorporate mixed samples to ensure appropriate statistical power and ecological validity. Although the review protocol was preregistered with PROSPERO, in retrospect, the inclusion criteria would have benefited from clearer operationalisation regarding the use of mixed samples, for instance through a predefined threshold for the proportion of witness-only data required.

Several included studies contained a substantial majority of third-party witness participants (e.g., Whitehead, 2001 = 71%; Wood et al., 2015 = 70%; Hunter et al., 2013 = 66%), indicating that their findings are likely to be largely representative of third-party witness experiences. Further studies included more balanced samples of third-party witnesses and victim-witnesses (e.g., McLeod et al., 2010 = 57%; Franklyn, 2012 = 50%; Criminal Justice Joint Inspection Report = 50%) and were therefore considered to provide meaningful insight into witness-related outcomes, albeit less specific. A smaller number of studies were weighted towards victim-witnesses rather than third-party witnesses exclusively. Whilst this does not fully align with the target population outlined, excluding these studies would have substantially reduced the available studies. Although inclusion of these studies arguably improves ecological validity by reflecting the

complexities of real-world criminal justice contexts, where victim and third-party witness experiences may overlap, it also reduces the specificity of conclusions relating exclusively to third-party witness experiences. This reflects the compromise between generalisability and specificity of population conclusions. Given the limited number of available studies, including these papers was considered to be appropriate in order to enable a broader synthesis of the wider evidence base.

Overall, while the inclusion of mixed samples introduces heterogeneity and limits the comparability of conclusions, it reflects the practical constraints of the current evidence base within the criminal justice system. However, these limitations have a clear impact on the overall outcomes of the thesis and highlight critical considerations for the conduct of systematic reviews. In particular, the protocol should form the foundation of the research process, guiding the consistent application of the inclusion and exclusion criteria, alongside robust quality control procedures. This consistency is important in producing findings that are both reliable and replicable. Reflecting on this process, the research and viva experience have provided a valuable lesson in the necessity of maintaining rigorous methodological standards throughout all stages of a systematic review, as well as within psychological research more broadly.

Moreover, notably, law-focused bibliographic databases, for instance Lexis or Westlaw, were not included in the initial search. This omission could explain the relatively low number of retrieved studies, which were primarily limited to government-produced reports. This raises concerns that the review might have inadvertently missed experimental studies published in law journals but not captured within the grey literature. To address this potential gap, both Lexis and Westlaw were subsequently searched, with a focus on identifying missed experimental studies. These searches primarily returned legislation, practical guidance, and case law. The search parameters were then refined to include books and journals specifically, yet no research exploring witnesses' experiences of using special measures in the courtroom was identified. This suggests that excluding these databases from the original review may not have been as problematic as initially thought. Nonetheless, similar future reviews are

encouraged to widen the search parameters to include law-focused databases to ensure completeness.

Relatedly, this review focused exclusively on special measures used within criminal proceedings. Consequently, research relating to other legal contexts, such as the Family Court and the Court of Protection, were excluded, as it fell outside the defined scope of the review. This was on the basis that criminal courts operate under different legal frameworks, procedures, and standards compared to those of civil courts, including Family Court and Court of Protection. Moreover, the purpose of criminal proceedings differs substantially from family or protective courts.

Similarly, the review was limited to the use of special measures at the court hearing itself, excluding measures used in the earlier stages of the criminal pathway, such as police interviews or pre-trial processes. This distinction was made given that different legal frameworks govern these stages; for example, special measures at trial are typically governed by statutory provisions such as the Youth Justice and Criminal Evidence Act, whereas investigative procedures, including those at interview, often follow guidelines including Achieving Best Evidence (ABE). As a result, the use and experience of special measures may vary significantly depending on the legal context and stage of the process. Whilst this focused approach enhances the specificity, practicality, and clarity of the conclusions drawn, it does limit the generalisability of the findings to broader legal settings. Future research is therefore strongly encouraged to explore the use of special measures within the Family Court, the Court of Protection, and earlier stages of the criminal justice process, such as interviewing. Considering similarities and differences across these contexts will allow for more refined policy and practice implications.

Furthermore, it is also recognised that including a broad definition of "vulnerable" witnesses, including children, disabled adults, and learning-disabled adults, reflects the wide array of individuals who may encounter barriers to effective communication within the court. While it is important to acknowledge the clear differences between these groups, examining this heterogeneous population collectively enables the review to capture common themes and challenges related to vulnerability within the court. Moreover, many of the

included studies differentiate between subgroups or specific needs within the broader vulnerable category, allowing for a more nuanced understanding of how special measures function across different populations. Nevertheless, it is important to acknowledge that communication needs and the effectiveness of special measures may vary considerably between groups. Future research should seek to explore these differences in greater depth to inform more refined and targeted interventions that address the unique needs of vulnerable witnesses.

Finally, although the overall quality of the included studies was generally good, several inherent biases were evident. Some studies did not explicitly report their analysis methods, resulting in the highest number of 'unclear' ratings for this criterion. Additionally, several studies failed to adequately address the researchers' relationship with participants, clearly describe their recruitment strategies, or discuss ethical considerations. These shortcomings complicate cross-study comparisons and underscore the urgent need for further high-quality research that minimises bias.

**Conclusions and Implications**

Taken together, the findings of this review suggest that special measures are a valuable tool in supporting vulnerable or intimidated witnesses to provide their best evidence. However, it is important that future research prioritises the evaluation of specific interventions in defined contexts, rather than seeking to assess special measures collectively, particularly given the heterogeneity introduced by mixed samples and variability in witness populations. Nonetheless, key themes can be drawn from this review. The need for greater intervention to ensure individuals understand questioning during cross-examination, with positive views towards the use of intermediaries and communication aids, is recognised. In addition, it is tentatively suggested that pre-trial visits may hold particular value for vulnerable third-party witnesses, however in the case of vulnerable witnesses who are also victims, there appears to be a greater preference for measures designed to shield the witness from the defendant, such as screens, video-link, or pre-recorded evidence. This highlights the need for measures to be tailored not only to individuals' specific cognitive, emotional, and communicative needs, but also to their legal role (i.e., whether the individual is

a victim or a witness), particularly given that these distinctions are not always clearly defined in real-world criminal justice contexts. Moreover, increased choice, awareness, and provision of information ahead of trial are urgently warranted.

These novel findings have important implications for both policy and practice at a national level. The results highlight the urgency of adopting a neurodiversity-affirmative approach to enable positive outcomes for vulnerable and intimidated witnesses, while also recognising the practical constraints and limitations within the current evidence base. This may ultimately contribute to improved satisfaction, reduced stress and anxiety, and increased accuracy and quality of evidence provided. Furthermore, providing more adequate support may enhance criminal justice practitioners' awareness of vulnerabilities to enable informed decision-making when implementing adaptations for vulnerable witnesses. This may serve to further promote inclusion within the courtroom. Finally, these findings provide a compelling argument for these measures to similarly be afforded to defendants, given that the provision for defendants remains in its infancy.

## Rationale for Chapter Three

The previous chapter examined the existing literature on the effectiveness of special measures in court, particularly regarding supporting communication for vulnerable witnesses. Whilst several interesting themes emerged, the evidence base is marked by considerable heterogeneity including the wide range of special measures available, the diversity of communication needs among vulnerable witnesses, and the variety of challenges to communication posed by the courtroom environment. In addition, methodological inconsistencies across studies limit the generalisability of findings. Whilst Chapter Two presented a systematic review of vulnerable witnesses' experiences of special measures, Chapter Three critically examines the reliability and validity of the broader evidence base, with particular emphasis on the use of jury simulation studies, a dominant methodology within this literature. Although jury simulation offers many advantages, this chapter also recognises its limitations. By exploring issues around reliability and validity, this chapter identifies key gaps and strengths in how we currently understand the communicative experiences of autistic and learning-disabled individuals in court. In doing so, the chapter not only builds upon the findings of the systematic review, but it also lays the theoretical and methodological groundwork for the empirical study presented in Chapter Four. By integrating the strengths and shortcomings of the jury simulation method, Chapter Three forms a critical bridge between reviewing what is known from the systematic review and generating new, more inclusive evidence to inform communication support within the criminal justice system. Moreover, the rationale developed within this chapter underpins the case study in Chapter Five, addressing some of the limitations of jury simulation research by presenting a more ecologically valid, tailored, and individualised approach to supporting communication within the criminal justice system.

# Chapter Three

## A Critique of Jury Simulation Methodology


### Abstract

A narrative-style approach, reflecting a subjective synthesis, is utilised to critically assess the strengths and limitations of jury simulation methodology across different forms of validity (internal, external, ecological, and construct) and reliability. This critique provides a basis for exploring whether current research can effectively and meaningfully inform legal policy and practice in the context of jury decision-making. Jury simulation methods involve mimicking the role of real-life jurors within controlled experimental settings, allowing the exploration of juror decision-making processes. This methodology brings many advantages, including the ability to explore both the outcomes and processes of decision-making, as well as to accommodate systematic variation of multiple research variables. High degrees of experimental control also allow for causal inferences to be made. Moreover, practically and logistically, this approach may be more ethical and less time-consuming and expensive to facilitate in contrast to other approaches, such as case studies or archival analyses. Disadvantages are also acknowledged, including limits in the extent to which findings can be generalised to the behaviour and decision-making processes of real-life jurors, the use of non-representative student samples, lack of deliberation, and lack of consequentiality. This review critically considers how a more nuanced relationship between ecological, external, and construct validity could be achievable through utilising more comprehensive and engaging stimuli, greater diversity in participant samples, increasing stimuli sampling and replicating previous stimuli, whilst also directing attention towards preserving internal validity. Overall, researchers are encouraged to ensure that methodological choices align with the nature of the research question (whether legal or psychological), as well as the intended audience (e.g., academic, applied, policymakers etc.).

## Introduction

Effective participation within the criminal justice pathway relies heavily on communication, not only in terms of a witness or defendant's ability to give evidence, but also in how that evidence is appraised by legal decision-makers. While special measures, as explored within Chapter One, aim to facilitate fair and equal engagement, their effectiveness depends, in part, on how jurors appraise and respond to supported communication. Understanding how jurors appraise testimony provided by autistic and learning-disabled individuals in court is essential to ensuring fair outcomes. This chapter critically examines the use of jury simulation methods as a tool for exploring the decision-making processes of jurors in response to autistic and learning-disabled individuals. It assesses strengths and limitations across different forms of validity (internal, external, ecological, and construct) and reliability. This chapter contributes to the broader aims of the thesis: to identify how communication is supported for autistic and learning-disabled individuals across the criminal justice pathway. In doing so, it provides a base for exploring whether current research can effectively and meaningfully inform legal policy and practice.

In England and Wales, research with real juries is prohibited under s.8 of the Contempt of Court Act (1981). To increase our understanding, several primary research methodologies are commonly used as alternative proxy methods when attempting to study juries. These include (a) archival analyses, (b) case studies/post-trial interviews, (c) questionnaires/surveys of legal professionals, (d) natural observation of juries/field studies, and (e) experimental mock jury simulations. Each of these methodologies has strengths and limitations regarding the conclusions that can be inferred.

### Archives

Archival analysis involves reviewing existing records such as court transcripts, jury verdicts, or case files. This method provides valuable insights into patterns including sentencing outcomes, the influence of juror demographics, legal changes, or trends in jury behaviour. For example, archival analysis can answer

questions such as: Are certain groups treated more harshly by jurors? Which types of cases are more prone to result in hung juries? How does the use of special measures correlate with case outcomes?

An illustrative example is the Chicago Jury Project, which utilised archival analysis of multiple US trials. The research determined the total number of hung juries, jury verdict awards, and the frequency of waived rights to trial (Devine, 2012). This highlights how archival analyses facilitate descriptive research. However, since the data are observational and not manipulated experimentally, this method has limited capacity for establishing causality.

**Questionnaires/surveys of legal professionals**

This method involves collecting self-reported feedback from criminal justice professionals such as lawyers, judges, and prosecutors. Questionnaires are often designed to ascertain jurors' perceptions, beliefs, biases, understanding, and decision-making processes. Key areas addressed in these questionnaires can include juror attitudes toward specific groups, pre-existing legal myths, juror understanding of legal concepts and special measures, perceived credibility, as well as juror confidence and satisfaction.

For example, Pennington and Dolliver (2022) surveyed jurors before and after their service to assess how their experiences influenced their trust in the court system. Their findings indicated that factors such as the deliberation process, juror satisfaction, and attitudes toward law and justice, significantly predicted changes in trust levels.

**Case Studies**

Case studies enable in-depth exploration of a single case or a small number of cases. This approach is particularly useful for investigating complex legal proceedings, specific jury behaviours, or legal strategies and reforms. Questions that case studies may seek to answer might include: What role did pre-trial publicity play in verdict decisions in a high-profile trial? How did jury deliberation impact a landmark case?

The value of case-study approaches is well recognised. For instance, Mott et al. (2000) examined how jurors process evidence and make decisions to identify

factors that influence verdicts. The findings revealed factors that jurors took into consideration when assigning damage awards, including how the evidence was presented and explained. Moreover, it was found that group deliberation helped reduce individual biases, whilst also reinforcing dominant opinions. Finally, juror characteristics, such as prior knowledge or attitudes, interacted with evidence of understanding and decision-making.

**Natural observation of juries and field studies**

Natural observation involves observing juries or courtroom processes as they naturally occur, without experimental manipulation. This methodology can answer questions such as: How do jurors interact with one another during group deliberation? How do group dynamics evolve over the course of deliberation?

For example, Kalven and Zeisel (1966) observed jury deliberations in Chicago and identified the "leniency effect", where juries tended to be more lenient than judges. Another example is Sommers (2006), who observed real jury deliberations to ascertain the role that racial diversity plays in deliberation and verdict outcomes. Sommers (2006) found that diverse juries spent longer discussing the facts of the case and engaged in more rigorous deliberations.

**Jury simulation studies**

Jury simulation methods involve creating controlled, experimental environments that replicate real jury trials. In these simulations, participants are presented with case materials and are asked to assign attributions of guilt across various domains. Devine et al. (2012) note that this methodology is the most commonly employed method used within experimental research on jury decision-making. Jury simulation studies provide valuable insights into jurors' decision-making processes, the influence of evidence and jury instructions, group dynamics, the role of bias and prejudice, and the effectiveness of legal reform. As an illustrative example, Cullen et al. (2024) utilised jury simulation methods to explore the impact of misinformation exposure during jury deliberation. Their findings revealed that pro-prosecution misinformation was more likely to be misattributed as trial evidence compared to pro-defence or contradictory misinformation. Additionally, pro-defence misinformation was more frequently misattributed to the trial than pro-prosecution misinformation. Notably, rape

myths moderated these effects. However, judicial instructions regarding misinformation exposure did not significantly influence jurors' memory or decision-making. This research demonstrates the need to address the impact of misinformation within trial procedures.

In contrast to self-reported or interview-based methodologies, jury simulation methods go some way towards mitigating the effects of social desirability bias, which is often high when one is asked to self-report on their own attitudes, beliefs, and behaviours (Beck, 2010). Furthermore, jury simulation methods can explore both outcomes and processes of decision-making, as well as to accommodate systematic variation of multiple research variables (Carlson & Morrison, 2009). High degrees of experimental control also allow for causal inferences to be made. Moreover, practically and logistically, jury simulation can arguably be perceived as holding more ethical and moral integrity and are often less time-consuming and expensive to facilitate, in contrast to other approaches e.g., case studies or archival analyses.

Nonetheless, the drawbacks of jury simulation methods are also critically acknowledged. A major limitation of this design are concerns regarding 'verisimilitude', that is, a lack of generalisability to the real-life behaviour and decision-making of jurors. In particular, criticisms are often centered on the types of samples used (e.g., students vs non-students), settings (experimental vs courtroom), trial stimuli (e.g., written vs video/live), trial elements (e.g., deliberation vs no deliberation), dependent variables (e.g., dichotomous verdict vs probability judgements) and finally, consequentiality (hypothetical vs real-life consequences). As such, there is a drive towards the need to conduct "a series of careful studies that systematically explore the range of actors, behaviours, and contexts over which results of simulation studies will hold" (Bray & Kerr, 1979, p.109). One such study to seek to address this is that of Ellison and Munroe (2010). Ellison and Munroe (2010) conducted a series of nine different rape mini trials in collaboration with criminal justice practitioners. These were presented in real time by actors and barristers to a mock juror audience, who were informed that the trial was based on a real case. The researchers found that prior to deliberation, jurors with personal experiences of sexual abuse were four times more likely to deliver a guilty verdict. In addition, not guilty verdicts

were more likely to be returned by those of a lower education level, as well as those from ethnic minority backgrounds. Furthermore, 13% of those who were found to hold existing biases changed their mind following deliberation. The use of real-time enactment in Ellison and Munroe's (2010) study offers ways to overcome concerns regarding verisimilitude in that they utilised more comprehensive and engaging stimuli, suggesting a positive application of jury simulation methods. Having said this, the volume of evidence presented to jurors was significantly less than would ordinarily be presented in a real-life case. Jury size and deliberation time were also limited. It is therefore possible that with longer deliberation, and more jury members, greater shifts in position may have been evident, offering suggestions for future research.

Taken together, the available research highlights a range of methodological approaches in studying juror decision-making, each of which has its respective strengths and weaknesses. It has been suggested that in choosing one of these approaches, consideration should be given to the purpose of the research (Bornstein, 2017). This can be categorised into *outcome* research which explores the effects of specific variables on verdict (e.g., attributions of guilt, sentence, culpability etc.), as well as *process* research, which focuses more on the effects of specific variables on jurors' decision-making processes in deciding on a verdict. Some methodologies are inherently designed to explore outcome research, for instance analyses of archives. Conversely, others, such as case studies, are more focused on investigating decision-making processes on a small number of outcomes. A benefit of jury simulation research is its ability to sit between these approaches and explore both outcomes and processes. It is for this reason that jury simulation methods have been chosen as the core focus of this critique.

**Aims**

Chapter One's systematic review highlighted significant shortcomings in research on vulnerable witnesses' experiences of using special measures in the courtroom. Building on these findings, this critique aims to address those gaps and propose solutions. Specifically, it evaluates the use of jury simulation methods, with respect to empirical research, in yielding valid and reliable

results. The critique critically appraises jury simulation methodology in terms of its internal, external, ecological, and construct validity, as well as reliability.

## Methods

This critique adopts a narrative-style approach, reflecting a subjective synthesis whereby relevant studies were identified through scoping searches of pertinent literature. While this methodology facilitates the exploration of broader themes and concepts, a drawback of this methodology is that it does not offer the same level of rigour and robustness as a systematic review.

## Validity of Jury Simulation Research

### *Internal Validity*

Internal validity refers to the confidence with which researchers can make statements regarding the relationship between variables, based on the methods used to manipulate or measure variables (Cook & Campbell, 1979).

To strengthen the internal validity of jury simulation research, researchers often rely on the use of random assignment, experimental control, large sample sizes, and within-participant comparisons (Wiener et al., 2011). A high degree of experimental control increases the confidence with which researchers can infer a causal connection between the independent and dependent variables, thereby limiting some of the possible effects of confounding or extraneous variables. This type of approach also allows for the exploration of specific psychological hypotheses and to isolate and change selected variables, which may not be practically accounted for within the domains of a real-life courtroom (Bray & Kerr, 1979; Diamond, 1997; Weiten & Diamond, 1979). Having said this, the exploration of specific hypotheses may bear little relationship to the complexities of real-life court processes, thereby limiting external validity. Such studies also cannot provide an exploration into other important factors, for instance: juror comprehension, manipulability, handling complex evidence, and exposure to media reporting. Moreover, Aguinis and Bradley (2014) argue that experimental designs often forgo external validity to strengthen internal validity. It has,

however, been suggested that this may be considered less of a concern when researching with the purpose of publication, given that journals attribute greater acceptance to studies high in internal validity (Krauss & Lieberman, 2017). This is further supported by research by Lieberman et al. (2016) who found that 59% of scholars interviewed favoured internal validity over ecological validity. Conversely, those within the legal field often have a far greater focus on investigating the operational components of the jury system and, therefore, may be more likely to favour externally valid research.

### *External Validity*

External validity refers to the extent to which the observed causal relationship is sustained across variances in persons, settings, time, or treatment variables (Shadish et al., 2002). Studies high in external validity are more easily generalisable to the real-life courtroom, for instance studies that utilise realistic materials and diversity in samples, e.g., community samples outside of student populations. However, increasing realism also increases the likelihood of confounding variables, thereby limiting internal validity. Researchers are therefore faced with the paradox of balancing control with generalisability. It has been suggested that internal validity is often prioritised over external validity (Ferguson, 2004).

### *Ecological Validity*

One type of external validity is that of ecological validity. The ecological validity of experiments refers to the extent to which experimental findings can generalise to the "real world" situation that a researcher wishes to understand (Holleman et al., 2020). As an example, jury studies that utilise video evidence and allow for jury deliberation can be considered high in ecological validity. However, as trial details become more individualised and nuanced to specific cases, this makes it difficult to generalise the findings to contexts outside of this (e.g., different crimes), thereby limiting the extent to which ecological validity is fully achieved. Nonetheless, it is argued that 'more ecologically valid research is required to have an impact on the judge and wider policy-makers' (Vidmar, 2008). Common threats to ecological validity in jury simulation research are outlined below.

Firstly, in relation to sampling concerns, the use of student samples appears to be one of the most widely debated and controversial issues within jury simulation research (Bornstein, 1999, 2017). The literature suggests that students may differ from the general population in several ways. Students may differ from the general population in terms of memory and information-processing capabilities, critical thinking skills, problem-solving, and language comprehension (Weiten & Diamond, 1979). Students also tend to be younger and may be more vulnerable to social pressures compared to the general population. However, in later years, the reliance on student samples within jury simulation research has decreased (Bornstein, 2017). This is a marked contrast to earlier research, which found an increase in student samples (Bornstein, 1999). This represents a positive shift, suggesting that research is beginning to address sampling bias concerns through recruiting greater community-based samples as representative of the jury. However, it is noted that many jury simulation studies still continue to utilise student populations (Krauss & Lieberman, 2017), with 84.2% of researchers interviewed raising no concerns about recruiting students for mock jury research.

Many studies have explored differences in verdicts between student samples and those drawn from the community. Bornstein (1999) examined 26 mock jury decision-making studies to assess main effects between students and non-students. Although it is important to note that this research does not constitute a 'true' meta-analysis, the findings do provide some useful insights. The results indicated that only 5 out of 26 studies revealed significant main effects (19.2%). This suggests that student samples may not be as problematic as initially thought. In contrast, alternative studies suggest greater leniency among students compared to community samples (Kassin & Wrightsman, 1983; Simon & Mahan, 1971). One plausible mediator may be the type of trial presented. For instance, students have been found to be more likely to acquit in trials of murder (Simon & Mahan, 1971), sexual assault (Keller & Wiener, 2011), and conspiracy (Kassin & Wrightsman, 1983), but less so in trials concerning armed robbery (MacCoun & Kerr, 1988). Moreover, non-students have been found to be more susceptible to eyewitness factors (Culter et al., 1990) and receptive to clinical opinion over actuarial evidence (McCabe & Krauss, 2011). Participant race has also been recognised as influencing non-students' decision-making in civil cases

(Bornstein & Rajki, 1995). This suggests that sample characteristics may influence mock jurors' attitudes and overall attributions of guilt more so than the type of sample employed, e.g., that of students. However, it is equally important to consider the self-selecting sample of students in this type of research, as compared with real-life trials whereby individuals are compelled by law to attend. This is particularly relevant considering the findings of Thomas (2020), who found that 87% of jurors interviewed reported that they would not have participated if jury service had been optional.

Furthermore, mock juror participants are increasingly recruited online using platforms such as Survey Monkey (http://www.surveymonkey.com), Qualtrics (http://www.qualtrics.com) or Mechanical Turk (http://www.mturk.com). However, concerns have been raised regarding sampling biases present on these platforms. Heen et al. (2014) found significant demographic differences in the profiles of respondents obtained via Survey Monkey, Qualtrics, and Mechanical Turk compared to U.S census data across various domains including gender, age, education, marital status, housing, and political affiliation. Perhaps one of the most striking results reported within this research was the differences in income between the three online platforms (33% of respondents on Survey Monkey received incomes of $100,000+, in contrast to only 10% and 9% of the Qualtrics and Mechanical Turk samples respectively). This is particularly disconcerting, considering research suggesting that socioeconomic status significantly impacts verdicts (Hastie et al., 1983; Visher, 1987). It has been suggested in the literature that quota sampling may be one way of overcoming this obstacle (Krauss & Lieberman, 2017). This involves researchers creating a sample of individuals that represents a target population of interest. Post-stratification weighting may also be used to generalise results from survey experiments to populations of theoretical and substantive interest, whilst also reducing the potential for heterogeneous treatment effects. Indeed, using a more national and representative sample would seek to increase both ecological and external validity. This is important, given that much of the research on jury decision-making derives from the United States. Therefore, it is difficult to apply findings and recommendations to the UK legal system.

In a similar way, online platforms such as Zoom or Microsoft Teams are also more commonly being used and provide the advantage of allowing for deliberation, with the use of breakout rooms. Whilst such deliberations can be recorded and provide qualitative data, it is important that online responses are also compared with offline responses, to explore whether similar patterns remain. If results are consistent, then this may provide a valuable tool for future researchers to investigate jury deliberations.

## Construct Validity

Another type of validity is construct validity. Construct validity refers to the extent to which measures relate to what they are supposed to measure (Cook & Campbell, 1979). For instance, a questionnaire in which each item measures one construct, and the total score aligns with similar research findings within the field. Keller and Wiener (2011) argue that construct validity is the most salient area to consider within trial simulation studies, more so than external or ecological validity. However, whilst increasing ecological validity can also simultaneously increase construct validity, this can also be undermined when details are constructed more uniquely to a case. Weiten and Diamond (1979) advise five considerations that threaten construct validity. These will be critically explored in turn below.

### *Trial Medium*

Jury simulation studies utilise a range of trial media, including written summaries, written transcripts, audio, videos, and live re-enactments based on real or fictitious cases. Nonetheless, it is argued that many jury simulation studies fail to replicate the narrative detail evident in real-life trials, and often exclude key components of trials, including cross-examination, judges' instructions, the different arguments presented by the prosecution and defence, and closing statements. Therefore, jurors may be more likely to rely on biases and stereotypes to inform their decision-making, given their limited access to materials. This restricts the conclusions that can be drawn to inform policy and practice.

Research exploring differences in the type of medium presented has yielded mixed results. For example, Juhnke et al. (1979) found that changing from

written summaries to transcripts, audiotape, or videotape, resulted in significantly more guilty verdicts. In contrast, Bermant et al. (1974) found that mock jurors presented with audio-taped evidence were less likely to rate the defendant as guilty compared to those presented with a written summary or transcript. Finch and Munro (2008) suggest that the use of videos may create distance between jurors and trial proceedings reinforcing the fictitious nature of the task. Moreover, it is argued that written mock jury studies may not be able to communicate the same emotional experiences as actively hearing or witnessing live evidence, which may more accurately convey to individuals the seriousness of the offence. Consequently, individuals may react in accordance with "conventional norms" rather than their original thoughts and feelings (Lerner, 2003; Lerner & Miller, 1978).

Nonetheless, the use of more audio-taped trials over written materials has been found to be steadily increasing (Bornstein, 2017), and written transcripts have begun to gain more acceptance in courts with testimonies submitted in writing (Longan, 1995). Indeed, advancements in technology have allowed for the use of more realistic stimuli, including video enactments, to be utilised. Research also suggests that written expert psychiatric testimony is often preferred, as it improves comprehension of the testimony (ForsterLee et al., 2000).

Bornstein et al. (2017) found that students returned more guilty verdicts for written trials; however, there was no difference for other types of trial media. Interestingly, the opposite trend was found for sentencing, in that students provided harsher sentences for written trials compared to non-students, but not for other media. It is possible that these findings may reflect the notion that written materials require more complex systematic processing compared to other forms of media, e.g., videos, which require more heuristic processing (Pezdek et al., 2010). As such, students, who are perhaps more exposed to processing complex textual material compared to non-students, may process information differently. This is particularly important given that in real life, jurors are often exposed to visual and auditory evidence rather than written.

These findings suggest that the way trials are presented may play a more critical role in issues of verisimilitude, compared to the type of sample (i.e., student vs non-student), especially when utilising naturalistic non-written materials. Further

research is therefore warranted to explore the theoretical basis for predicting the appropriateness of certain methodologies (e.g., awareness that student samples and written trials may be particularly problematic). Based on this, researchers should be encouraged to make informed decisions ahead of conducting research. Moreover, tailoring the type of methodology to the specific target population is crucial in producing valid data (Hainmueller et al., 2015).

### *Jury Deliberation*

Jury deliberation is a key defining characteristic of jury service, involving discussion and debate to reach a consensus of opinion. Nonetheless, jury simulation research often excludes this collective deliberation process.

Nunez et al. (2011) argue that the absence of jury deliberation poses threats to construct validity. It can be argued that bias differs when answering an individual survey, compared to maintaining this bias in the presence of collective deliberation, and in response to being challenged on one's view (Ross, 2023). Moreover, Tinsley et al. (2021) point out that collective decision-making may override flaws in individual juror decision-making. Furthermore, even when deliberation is facilitated, this is often much shorter in duration compared to real-life deliberation time or involves fewer jurors.

Research exploring this notion has yielded mixed findings. For instance, a meta-analysis found that deliberation resulted in a reversal of the verdict initially favoured by the majority (Devine et al, 2001). Similarly, MacCoun and Kerr (1988) found that deliberation resulted in a shift in leniency, with jurors delivering more guilty verdicts. However, other research has found that individual juror verdicts strongly predict overall final group verdicts, whereby minorities conform to the majority (Bornstein & Greene, 2011; Salerno & Diamond, 2010). Nonetheless, Lieberman et al. (2016) suggest that deliberation concerns may be less problematic than initially thought. In a sample of scholars who were asked their views on the important components that make up a jury decision-making study, half ranked deliberation as the last or second least important component. Instead, respondents indicated that the type of sample obtained, and the way in which the law is explained, are of greater importance compared to jury deliberation, as well as the use of outcome measures. An alternative may lie in access to real-life deliberations, for instance via

anonymised transcribed tape recordings. This would provide higher-quality evidence and allow for a nuanced understanding of decision-making processes, particularly when deliberating about high-stakes and morally charged trials (Ross, 2023). However, this may be more difficult to achieve.

### *Consequentiality*

Concerns regarding the lack of consequentiality are also important to consider, given that mock jurors are not faced with a decision of real-world importance, in contrast to real-world jurors whose decisions hold life-changing consequences for all those involved. Indeed, it is argued that there are key cognitive differences between practical and theoretical consequences (Ross, 2023), and mock jurors may systematically process evidence differently knowing that their decisions lack real-world consequences. This is supported by the literature indicating that jurors were more hesitant to convict when their judgements had serious implications for the defendant (Kerr, 1979; Kaplan & Krupa, 1986; Bindler & Hjalmarsson, 2018).

Nonetheless, consequentiality is difficult to ascertain, and the conditions under which this might occur, and the underlying mechanisms driving it remain unclear. It has been suggested that the greater use of field studies may serve to overcome the issue of consequentiality. This type of approach allows for a high degree of experimental control, thereby simultaneously strengthening both internal and external validity (Atzmuller & Steiner, 2010). This added layer of external validity may provide courts and policymakers with greater confidence and acceptance. Moreover, access to real-life jury tape recordings would allow for a better understanding of jurors' decision-making in high-stakes situations. Nonetheless, restrictions under the Contempt of Court Act (1981) make this difficult to undertake, and it is encouraged that this be re-considered in the future. More ethical ways of exploring consequentiality may lie in exploring similar parallel variables, for instance by measuring task motivation or accountability for decision-making. This warrants further exploration in the literature.

### *Inappropriate Dependent variables*

The choice of dependent variables has also been at the forefront of debate, although more recently this appears to be less of a concern. Critically, many jury simulation studies fail to ask questions that are indicative of a real-life criminal trial. For example, it is argued that assessing guilt on a continuous Likert scale, rather than using a binary guilty vs not guilty structure, or providing a recommended sentence length, does not parallel real-life outcomes and limits external validity. However, often, many jury decision-making studies ask respondents to first deliver a categorical guilty vs not guilty verdict, before following this up with continuous measures to allow for greater insight into participants' decision-making processes. As an example, incorporating dichotomous verdicts with confidence scales may be a promising approach. Kassin and Wrightson (1983) created an index which involved multiplying jurors' confidence ratings (measured on an 8-point Likert scale) by +1 for those who returned a not guilty verdict and -1 for those returned a guilty verdict. Diamond and Casper (1992) provide evidence of validity for this scale. The researchers found that jurors who expressed uncertainty prior to deliberating were more likely to change their decision following group deliberation. This method supports a greater drive towards achieving external and ecological validity, and it is positive that studies are shifting towards this approach.

## Reliability

Reliability refers to how consistent a measure is in assessing the desired construct, and is considered a prerequisite for validity (Nunnally, 1970).

Given that jury simulation studies are typically developed to achieve the aims and hypotheses of specific research, reliability can be difficult to ascertain, as they are not standardised in the way that psychometric measures are. Therefore, materials across studies are often not consistent with one another, with considerable differences and variation noted between studies (e.g., length, charges, expert evidence, jury instructions etc., Krauss & Lieberman, 2017). One way to overcome this is by replicating pre-existing published mock trial summaries. Replication of materials would allow for findings to be generalised

more widely beyond idiosyncratic trials. Promisingly, in support of this, some journals now advocate for the submission of replication-based research (e.g., *Journal of Personality and Social Psychology, Current Perspectives in Psychological Science*). However, it is important to recognise that findings that are not replicated, or not statistically significant, are often not reported or cited. This 'file-drawer' phenomenon casts doubt over reliability and the publishing of studies with methodological flaws. Nonetheless, future researchers are encouraged to utilise existing methodologies to further establish reliability and validity. The implementation of a set of predefined standards outlining details to include within mock trial summaries may also serve to limit inconsistencies and allow comparisons to take place. This could perhaps be framed based on Lieberman's (2016) findings, suggesting that the use of theory to guide research, and jury instructions, are the most important components of a jury decision-making study, followed by sample and trial format.

## Conclusion

This critique explores ways to enhance the validity and reliability of jury decision-making research by critically exploring the complex relationship between ecological, external, and construct validity. It advocates for a "two-stage" approach. The first stage involves prioritising the maximisation of internal validity, focusing on controlled environments, with less focus on the use of representative samples or stimuli. The second stage moves towards maximising external validity through utilising more representative samples and stimuli to reflect real-life jury settings. In addition, using a multitude of methodologies (i.e., field studies, interviews, archival analyses, simulations) would enable the triangulation of results, thereby overcoming the shortcomings of any single inherent approach.

Importantly, navigating the trade-off between internal and external validity should be informed by the nature of the research question (legal vs psychological) and the intended audience for the dissemination of empirical findings. For example, research exploring cognitive biases may look to prioritise internal validity and experimental control, whereas legal research may seek higher external validity to generalise findings to the real-life courtroom.

Overall, this critique builds directly upon the findings from Chapter One's systematic review, which critically synthesised the current evidence on vulnerable witnesses' experiences of using special measures in the courtroom. The systematic review revealed important themes, including the need for greater intervention to ensure individuals understand questioning during cross-examination, with positive views towards the use of intermediaries and communication. However, the review also highlighted significant limitations in the current literature base. These include sampling bias and methodological shortcomings in the included studies. These barriers limit generalisability and risk recommendations being adopted in theory rather than in practice, e.g., introducing special measures or the intermediary scheme.

Moreover, the broader aims of the thesis focus on improving communication support for autistic and learning-disabled individuals interacting with the criminal justice system. Chapter One detailed how communication barriers can exacerbate individuals' difficulties in engaging with legal processes. Consequently, research that lacks realism, or uses non-representative samples and stimuli, may fail to identify nuanced communication difficulties faced by autistic and learning-disabled individuals. Is it therefore imperative that research undertaken is valid, reliable, and has real-world applicability. Moreover, this present critique contributes to the overarching thesis goals of providing a comprehensive research framework to support individuals with learning disabilities and autism to communicate and engage with the criminal justice system.

## Rationale for Chapter Four

The systematic review contained in Chapter Two highlights a recognised need for greater intervention to support autistic and learning-disabled individuals during cross-examination, emphasising the positive benefits of intermediaries and communication aids in facilitating effective communication.

Chapter Three further builds on this by examining the reliability and validity of existing evidence surrounding jury simulation studies, which form the backbone of much of the literature in this area. However, the review identified key limitations in the current literature base, including sampling bias, methodological shortcomings, and a lack of empirical research.

In response to the gaps identified within the literature, Chapter Four presents an empirical study designed to explore the influence of autism diagnosis disclosure and information, intermediary support, and their combination on jurors' attributions of guilt and leniency towards an autistic male defendant. This study aims to address previous methodological limitations by employing a controlled experimental design and a more representative, diverse sample. Chapter Two's systematic review provides a strong foundation for this exploration. It identified a crucial need for greater intervention to ensure that individuals understand the questioning during cross-examination, highlighting positive attitudes towards the use of intermediaries and communication aids. For this to be effective, criminal justice professionals must be aware of a defendant's autism diagnosis and understand its implications for communication.

Building on these findings, Chapter Four explores the provision of autism diagnosis disclosure and associated information, and the presence of an intermediary, to assess their individual and combined effects on juror perceptions. This empirical approach directly addresses the gaps and unmet needs outlined in the systematic review and aims to inform more inclusive courtroom practices for autistic and learning-disabled defendants.

# Chapter Four

## The Effect of Autism Diagnosis Disclosure, and an Intermediary, on Perceptions of Guilt, Sentence Length, Criminal Intention, Legal Responsibility, and Moral Responsibility of an Autistic Defendant


### Abstract

Existing research indicates that autistic individuals are often perceived negatively due to their presentation of atypical behaviours. This is particularly concerning within the field of jury decision-making, whereby jurors frequently rely on non-verbal cues, and atypical behaviours may be stereotypically perceived as indicators of guilt or deception. Encouragingly, a growing body of empirical research suggests that providing jurors with additional diagnostic and psychiatric information about autism may help to mitigate unfair misconceptions and biases. Although several studies have explored the isolated effects of providing diagnostic and psychiatric information on autism, limited research has examined the influence of intermediaries, with findings remaining mixed. Furthermore, no research to date has examined the combined effect of diagnosis disclosure and the presence of an intermediary on jury decision-making outcomes.

The current study aimed to address this gap by examining whether the provision of an autism diagnosis, the presence of an intermediary, or a combination of both, impacted upon leniency and attributions of guilt towards an autistic male defendant. Secondary aims included exploring the influence of participants' openness, awareness, and level of contact with autism on these attributions. Qualitative responses to participants' decision-making processes were also obtained to allow for a nuanced mixed-methods approach. A total of 223 participants were randomly assigned to one of four experimental conditions: (1) autism diagnosis disclosure and supporting information, (2) presence of an intermediary, (3) both autism diagnosis disclosure and an intermediary, and finally (4) no support. Participants first completed three attitudinal measures assessing openness, awareness, and contact with autistic individuals. They then read a stalking case vignette, followed by a court summary and cross-

examination. The vignette described the defendant as displaying atypical behaviours associated with autism at both the time of the crime and in court. Following this, participants made attributions of guilt, sentence length recommendations, and ratings of criminal intention, legal responsibility, and moral responsibility.

The findings suggest that neither the provision of an autism diagnosis and supporting information, nor the presence of an intermediary, significantly affected whether participants judged the defendant guilty or not. Similarly, isolated judgements of criminal intention, moral responsibility, and legal responsibility were not strongly influenced by these factors; however, when combined, they did affect the overall pattern of participants' attributions. Findings indicate that disclosure of an autism diagnosis and the presence of an intermediary may therefore shape evaluations of a defendant's mental state and responsibility, even if they do not directly reduce guilt or sentencing severity. Furthermore, participants who scored high in their awareness of autism were more likely to return longer sentence length recommendations.

**Keywords:** Autism, Defendant, Expert Evidence, Intermediaries, Guilt, Criminal Intention, Moral Responsibility, Legal Responsibility, Jurors, Court

# Introduction

## Introduction

Autistic individuals encounter many significant communication barriers when interacting with the criminal justice system, and yet these barriers remain poorly understood by criminal justice professionals (Maras et al., 2017; Senate Select Committee on Autism, 2022). These challenges are particularly pertinent during cross-examination, where atypical behaviours commonly exhibited by autistic individuals may negatively bias judgements (Grossman et al., 2019; Sasson & Morrison, 2017). Attribution theories offer a conceptual framework for understanding stigma as the outcome of personal biases and the interpretation of information when attributing explanations to everyday events (Weiner, 1993). Weiner (1993) argues that individuals are more likely to attribute responsibility to actions perceived to be controllable than to those that are uncontrollable.

Kelley's Discounting Principle (1971) further explains that when multiple plausible explanations for behaviour exist, individuals tend to discount personal attributions in favour of situational ones. Within this framework, the perceived importance of any given cause is assessed based upon its significance relative to alternative explanations. This framework is particularly relevant to autism, as it is largely unidentifiable by physical appearance. As such, characteristics, including gaze aversion and fidgeting, are not likely to be expected. Such incongruence between a juror's expectations and a defendant's behaviour (i.e., atypical characteristics of autism that violate social norms), may drive jurors to seek alternative explanations for behaviour, such as interpreting it as indicative of deception or questioning credibility. As a result, autistic defendants may be at an increased risk of unfair treatment, especially when their condition is not recognised, or properly accommodated in court. However, when individuals are informed of a defendant's autism diagnosis, they may be more understanding and view the defendant more favourably, as this provides a reasonable explanation for their atypical behaviours.

Although growing awareness of autism has prompted discussion around courtroom support mechanisms, empirical research in this area remains limited. It is widely recognised that many legal decision-makers are uncertain of the

forensic significance of autism, or how to effectively contextualise diagnostic information to inform their decision-making (Allely & Cooper, 2017; Freckelton, 2013). Consequently, many professionals are unsure how much weight should be given to an autism diagnosis and associated information obtained from psychiatric reports (Berryessa, 2014). It is therefore perhaps not surprising that witnesses and defendants are often avoidant of disclosing information pertaining to their autism, due to concerns surrounding justice professionals' perceived lack of autism knowledge and awareness (e.g., Crane et al., 2016), as well as concerns that their diagnosis may count against them (e.g., Allely & Cooper, 2017). For instance, Crane et al. (2016) found that 36% of autistic individuals in contact with the criminal justice system did not disclose their diagnosis due to fear of victimisation and discrimination. Similarly, Maras et al. (2017) found that 92% of solicitors and barristers interviewed had encountered cases in which an individual's autism diagnosis was not disclosed until trial. This may be further exacerbated by negative media portrayals of autism and criminal behaviour, which can impact stereotypical attitudes towards autistic individuals (Baron-Cohen, 1988; Berryessa, 2014; Brewer et al., 2015).

**Autism Diagnosis Disclosure**

Disclosing an autism diagnosis and providing relevant information can significantly influence perceptions across communication, credibility, and emotional demeanour domains (Maras et al., 2019; Rum et al., 2025). Firstly, providing such disclosure serves as an important contextualising tool, enabling criminal justice professionals to better understand behaviours commonly associated with autism, including cognitive, communication, and sensory difficulties. By clarifying these behaviours, sharing an autism diagnosis and associated information may reduce misunderstandings and lessen doubts related to credibility, evasiveness, dishonesty, or guilt. Secondly, jurors may become more attentive, patient, and accommodating of communication differences (Maras et al., 2019). Disclosure can also enhance perceptions of honesty and self-awareness, positively impacting views of trustworthiness and credibility. However, it is also important to recognise that disclosure can sometimes activate stereotypes or biases, such as assumptions of diminished responsibility, unpredictability, or increased risk of violence (Berryessa, 2014). These biases

risk underestimating an individual's competence and can influence judgements of guilt, competency, and reliability.

**Perceptions of Autism Diagnosis Disclosure**

Sasson and Morrison (2019) found that although first impressions of autistic adults were initially rated less favourably, advising observers of their autism diagnosis resulted in significantly more positive judgements. Similarly, Maras et al. (2019) found that when participants were provided with additional information detailing a defendant's crime and behaviour consistent with autistic traits, the defendant was attributed greater credibility and held less accountable for his actions, resulting in fewer guilty verdicts. This suggests a discounting effect consistent with Kelley's (1971) discounting principle. Interestingly, further follow-up qualitative analysis revealed that those who were informed about the defendant's autism diagnosis were more likely to attribute his inappropriate behaviours to autism. In marked contrast, those who were not given any autism information reported that the defendant's aggressive behaviours, evasive answers, inappropriate language, and lack of remorse exacerbated negative biased judgements of culpability and guilt. Importantly, it is recognised that many participants demonstrated uncertainty in their decision-making.

In support of the above, Sturges and Nuñez (2021) found that a defendant was attributed to be less responsible when he was described with severe autism in contrast to mild autism. However, manipulating the severity of social and intellectual impairments did not significantly impact on judgements of guilt. This therefore suggests that the presence of a diagnostic label alone may be enough to influence juror leniency more than specific impairment information. However, whilst similar findings have also been replicated when providing jurors with generic information about autism in children (Crane et al., 2020), this effect was not replicated in a second autistic child witness who presented with less atypical behaviours. This therefore demonstrates heterogeneity in autistic presentations, highlighting the need for a person-centred, individualised, and tailored approach in communicating how autism affects an individual on an idiosyncratic level.

Furthermore, the influence of autism on jurors' attributions of criminal and moral responsibility remains complex and requires further exploration. Berryessa et al. (2015) revealed that jurors' ratings of legal responsibility and criminality

remained unchanged following disclosure of an autism diagnosis. However, interestingly, views towards intent and moral responsibility, alongside sentencing outcomes, were viewed differently. Following the provision of psychiatric information on autism, many participants viewed the defendant as lacking criminal intent, and believed that mental health treatment, over a custodial prison sentence, was more conducive to the defendant's difficulties. Similarly, Maras et al. (2019) found that a defendant was viewed as less responsible for his crime when information on autism was provided. Similarly, the findings of Sturges and Nuñez (2021) suggest increased juror leniency in relation to criminal responsibility when an autism diagnosis is disclosed. Moreover, the researchers found that as the severity of autism increased from mild to severe, greater leniency towards criminal responsibility ratings was observed.

Finally, it is possible, however, that the positive impacts of diagnosis disclosure vary depending on the dimension being explored. For instance, positive effects have been observed in areas related to honesty, likeability, and blameworthiness. Conversely, negative effects have been reported in domains pertaining to competence and intelligence (Blackhurst et al., 2022; Lim et al., 2022; Maras et al., 2019). This requires further exploration within the current literature.

In summary, these mixed findings underscore the nuanced ways in which disclosing an autism diagnosis can influence juror perceptions, highlighting the need for further empirical research to clarify these effects and to support appropriately informed decision-making.

**Intermediaries**

Intermediaries are impartial, neutral communication specialists who provide support to vulnerable individuals to enable them to participate in court proceedings (Ministry of Justice, 2019). Their role includes conducting an initial assessment to identify the communication needs of the vulnerable person. They then produce a report with recommendations on how best to support them during police interviews and at court appearances. Their attendance at pre-trial

ground rules hearings with the judge and counsel enables the development of communication recommendations to be followed at court (Cooper & Mattison, 2017). They may then be present during the police interview and at court, intervening in instances of inappropriate questioning as determined within communication ground rules, alongside instances whereby an impairment to communication is observed, e.g., when the witness or defendant presents as visibly stressed, anxious, or requires a break etc. (Cooper & Mattison, 2017). Additionally, intermediaries can facilitate pre-trial visits to prepare vulnerable witnesses or defendants (Judicial Studies Board, 2011).

The provision of intermediaries is generally well received by professionals within the Criminal Justice System, as outlined in Chapter Two (Cooper, 2014; Plotnikoff & Woolfson, 2007). However, empirical evidence exploring juror perceptions of the relationship between intermediaries and vulnerable defendants remains limited. Concerns also exist that the presence of intermediaries may unintentionally place vulnerable defendants at an unfair disadvantage (O'Mahoney, 2010), thereby compromising the integrity of trial outcomes. From the perspective of Expectations Violations Theory (Burgoon & Hale, 1988), jurors may expect vulnerable defendants to appear anxious or nervous. However, if jurors observe a composed and calm defendant, without recognising the intermediary's role in facilitating this presentation, they may question the defendant's credibility or reliability. They may further wonder whether the testimony has been "coached," which can undermine trust, and ultimately impact verdict outcomes. Moreover, the presence of an intermediary may also trigger a shift in focus from the content of the testimony to the defendant's disability or vulnerability (Morrison et al., 2021). This may potentially lead to biased credibility judgments based on personal characteristics rather than the evidence presented, leading to unconscious bias. Moreover, an intermediary may serve to exacerbate any stigmatised beliefs that a jury member might hold and may be viewed as invasive compared to other measures, such as pre-recorded evidence (Gous et al., 2024).

Alternatively, expectations may be violated in the opposing direction. Jurors may assume that special measures will reduce a witness's anxiety, stress, or nervousness. However, research indicates that stress remains high even in

supported individuals (e.g., see Landström & Granhag, 2010). This visible stress may be misperceived as indicative of guilt or evasiveness, leading to more punitive outcomes. Furthermore, it is possible that jurors may perceive the presence of an intermediary to be an unfair advantage, which could lead to questioning of authenticity and perceived credibility.

**Perceptions of Intermediaries**

Research on how jurors perceive intermediaries remains inconclusive. Smethurst and Collins (2019) found that the presence of an intermediary led to more favourable perceptions of a 17-year-old vulnerable male defendant, positively influencing views of his anxiety, cooperativeness, coherence and confidence. This was attributed to intermediary support facilitating clearer expression and better comprehension of questions. Similarly, Collins et al. (2017) reported that children who were supported by an intermediary were judged to be more truthful, credible, believable, cooperative, responsive, comfortable, confident, consistent and accurate, while being viewed as less vulnerable and suggestible. Here, the presence of intermediaries helped jurors perceive the child's communication as clearer and more effective, leading to more positive evaluations overall. Conversely, Gous et al. (2024) found no impact of intermediaries on witness competency ratings compared to unsupported witnesses. Similarly, Smith and Golde (2024) found that the presence of an intermediary had no observed effect on perceptions of an adult autistic witness across all verdict and credibility measures. Age may partially explain these discrepancies, as positive effects have primarily been observed in children (e.g., Collins et al., 2017; Smethurst & Collins, 2019), whereas the aforementioned studies utilised adult witnesses. However, this explanation is complicated by Davis (2024), who found that an accused youth (defined as aged between 12-18), was perceived as less credible when they testified with an intermediary. Adding further complexity, Ridley et al. (2015) explored the effects of an intermediary on perceptions of credibility in a child witness. The findings revealed that the presence of an intermediary did not have a positive or negative effect on the perceptions of the child.

These conflicting findings may be understood in terms of methodological differences. Both Smethurst and Collins (2019) and Collins et al. (2017) utilised video recordings, whereas both Davis et al. (2014) and Ridley et al. (2015) employed written transcripts. As acknowledged within Chapter Two's methodological critique, written methodologies may fail to communicate the emotional intensity of live or audio-visual testimony, instead requiring more abstract and systematic processing. Video testimony also provides important non-verbal cues, such as facial expressions, tone of voice, and body language. This is particularly salient when exploring the role of intermediaries, whose presence is inherently visual and interactive. Consequently, the full extent of the impact of intermediaries may be missed within written-based methodologies, and their influence on perceptions of communication and vulnerability may be overlooked. Nonetheless, it is acknowledged that written transcripts do also offer benefits through encouraging greater analytical, systematic, and cognitive processing of evidence. This enables exploration of jury decision making under conditions whereby emotional influences are lessened.

A further explanation for these differences may lie in the frequency with which intermediaries interject during proceedings. Krahenbuhl (2019) identified a tendency towards a guilty verdict when an intermediary was present but refrained from intervening. This may be interpreted in several ways. Firstly, the presence of an intermediary may draw attention to the individual's communication difficulties, which could adversely affect assessments of credibility. Secondly, a lack of intermediary intervention may be misperceived as a sign that the individual does not require assistance, potentially impacting views towards credibility. Thus, it appears that not only the presence, but also the nature and frequency of intermediary involvement, can significantly impact credibility evaluations and consequent verdicts.

Based on these mixed findings, coupled with limited research disentangling the effects of age and interjection and methodological differences, there is a clear need for further research to clarify how intermediaries influence juror perceptions within the criminal justice system.

**The presence of an intermediary during the disclosure of an autism diagnosis**

While an expert witness can share and explain a witness' diagnosis to the jury, they are not permitted to assist the witness in giving evidence and therefore cannot provide support during questioning. This reflects the distinct role of the intermediary, who is specifically trained to facilitate communication and support the witness in navigating complex or potentially suggestive questioning techniques, which may present challenges for this population (Golde et al., 2022; Hepner et al., 2015).

As previously acknowledged, autism is characterised by differences across multiple domains, including communication, social interaction, sensory processing, and behaviour. These differences may manifest in behaviours such as difficulties with maintaining eye contact, atypical facial expressions, or challenges in responding to questions. These behaviours may be misperceived as evasiveness, disinterest, or lack of credibility. Therefore, without appropriate context, such misunderstandings may unfairly influence how a witness's evidence is received. Moreover, the addition of an intermediary can contribute to a more nuanced understanding of the autistic individual's strengths and challenges, helping legal professionals and jurors to recognise the broader context behind the testimony.

Research investigating the combined effects of providing basic diagnostic information alongside the presence of an intermediary for juries remains scarce. To date, only one study examining this interaction is documented. Smith and Golde (2024) found that providing basic autism diagnostic information, together with the presence of an intermediary, did not significantly influence mock jurors' perceptions of an adult autistic witness in terms of verdict and credibility measures. This is a positive and encouraging finding, as it suggests that the presence of an intermediary does not bias against jury outcomes. However, it was noted that jurors perceived the intermediary as improving the accuracy, but not the honesty, of the witness's testimony. The authors proposed that this may stem from general assumptions regarding intermediaries, rather than case-specific factors. This appears plausible considering that no differences in competence ratings between neurotypical and autistic witnesses were found.

Consequently, the researchers identified the need for further exploration to examine these effects in more complex contexts, such as sexual assault cases. Moreover, the findings suggested that the presence of an intermediary reduced perceptions of the witness's confidence. However, whilst this observed effect was small, it does nonetheless underscore the need to develop psychometrically robust measures of credibility within jury settings.

## The Current Study

To the author's knowledge, no research to date has explored the influence of autism diagnosis disclosure and information, intermediary support, and their combination, on jurors' attributions of guilt and leniency towards an autistic male defendant. Whilst a recent study has sought to explore these effects within witnesses, a differential effect may exist for defendants. This is timely to explore, given that vulnerable defendants' access to special measures remains in its infancy yet is steadily becoming recognised by way of ad hoc statutory provisions (live link) and case law (screens and intermediaries).

### *Primary Hypotheses*

Participants who are provided with information about an autism diagnosis, an intermediary, or both, will report lower levels of perceived defendant guilt, recommend shorter sentence lengths, and assign lower ratings of criminal intention, moral responsibility, and legal responsibility, compared to participants who receive no such support information.

### *Secondary Hypotheses*

Additionally, this study will explore the influence of participants' openness, awareness, and level of contact with autism, on jury decision-making. Given the exploratory nature of these analyses, no directional hypotheses are proposed. Finally, the research will also examine participants' qualitative responses regarding their attributions, to gain deeper insight into the decision-making processes within this context.

# Method

## Design

The study followed a 2 (Autism Diagnosis/Information: Yes, No) x 2 (Intermediary: Yes, No) between-participants experimental design, comprising four independent conditions which altered the level of support afforded to the defendant. This method was utilised to avoid potential carry-over effects (Tourangeau et al., 1980), response shift biases (Howard & Daily, 1979), demand characteristics (Orne, 1962) and the Hawthorne bias (Adair, 1984). Participants were randomly allocated to one of four conditions: (1) autism diagnosis/information, (2) intermediary, (3) both autism diagnosis/information and an intermediary, and finally (4) no support. The dependent variables were participants ratings of verdict (*guilty vs not guilty)*, recommended sentence based on the assumption that the defendant was found guilty (*measured in years),* criminal intention *(measured on a 1-6 scale),* legal responsibility *(measured on a 1-6 scale)* and moral responsibility *(measured on a 1-6 scale).*

Whilst the critique in Chapter Three acknowledges limitations concerning the external validity of utilising recommended sentence lengths in jury decision making studies, in the current study, participants were also asked to provide qualitative responses alongside their decisions. This approach was considered important to gain deeper insight into participants' decision-making processes and mitigated concerns surrounding verisimilitude by capturing nuanced reasoning beyond just numerical outcomes. It further allows for comparison with prior research which has extensively used sentence length outcomes, strengthening the overall body of knowledge. Additionally, multiple dependent variables, alongside verdict, were utilised to allow for a more sensitive measure and to provide a nuanced understanding over the use of a dichotomous and binary verdict alone. This created a mixed-methods design with experimental and correlational components. A regression component of the design explored the relationships between attributional measures and sentence length recommendations. Finally, participants' responses to open-ended questions allowed for a mixed-methods approach and qualitative analysis of participants reasoning behind their ratings.

**Participants**

A priori sample size estimations using G*Power 3.1.7 (Faul et al., 2007), indicated that a minimum of 132 participants would be required to detect a medium effect at an alpha level of 0.05, and power 0.80, in a priori power analysis for a one-way MANOVA with four groups and three response variables. An opportunity sample was employed consisting of jury-eligible participants from the general population aged 18 and over. Participants were recruited via the University of Nottingham, UK, online forums and research websites, as well as snowballed acquaintances including family, friends, and work colleagues. Participants were given no incentive to complete the study. Biases were reduced as participants were randomly assigned to conditions via an online data system, ensuring reduced researcher interaction. In total, 233 (N) participants completed the study. This comprised of 149 females, 62 males, 6 who identified as non-binary, and a further 6 who chose not to disclose their gender. Participants were aged 18-75, to fit the eligibility criteria to act as jurors within the United Kingdom, with a mean age of 30 (SD = 11.37).

Analysis of participants openness, awareness, and level of contact with autism across experimental conditions revealed no significant main effects or interactions, all $F$s < 2.26, all $p$s > = 0.39. Similarly, there was no statistically significant difference between age and experimental condition, $F(3,219) = 0.19$, $p$=0.90, or between gender and experimental condition, $F(3,218)= 0.98$, $p$=0.40.

**Materials**

***Demographic Questionnaire***

Participants completed a short four-item demographic questionnaire designed to gather socio-demographic information. These included questions pertaining to participants' age, gender, nationality, and professional and employment status (See Appendix E).

***Autism Openness Scale (Nevill & White, 2011)***

Participants' openness to autism was measured using a vignette adapted by Nevill and White (2011) from Harnum et al. (2007, see Appendix F). This vignette describes a socially withdrawn individual who displays restricted and repetitive behaviours. This is in keeping with his autism diagnosis, although autism itself is not explicitly mentioned within the vignette. Participants respond to seven statements on a 5-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). Example statements include *'I would feel comfortable around this person'* and '*this person is different from me.'* Responses to the seven items are added together to yield a total score from 5 to 35. Higher scores are indicative of greater openness towards individuals who display autism-like characteristics. Internal consistency for this scale has been deemed appropriate (Alpha = 0.77, Nevill & White, 2011). However, Cronbach's alpha in this sample appeared low, 0.47.

***Autism Awareness Survey (AAS, Tipton & Blacher, 2014)***

Participants' awareness of autism was measured using the Autism Awareness Survey (AAS, Tipton & Blacher, 2014, see Appendix G). This questionnaire is an updated version of the original Autism Knowledge Survey (AKS, Stone, 1987) and has been found to be the most widely used assessment of autism knowledge (Harrison et al., 2016). Participants are presented with 14 statements about autism and rate the degree to which they believe the statements to be true on a 0-4 Likert scale, with 0 indicating 'disagree' and 4 indicating 'agree'. Example statements include *'autism runs in families'* and *'all children with autism display poor eye contact.'* Responses are added together to yield a total score ranging from 0-56. Higher scores indicate greater accuracy in knowledge of autism. The AAS has been found to demonstrate adequate internal consistency (ω=0.60, Cage et al., 2017). Cronbach's Alpha in this sample was acceptable, 0.67.

***Level of Contact Report (LCR, Gardiner & Larocci, 2014)***

Participants' experiences of autism were assessed using the Level of Contact Report (LCR, Gardiner & Larocci, 2014, see Appendix H). Originally developed by Holmes et al. (1999) to measure contact with individuals with mental illness, Gardiner and Larocci (2014) adapted this measure to explore the quantity and

intimacy of contact with autistic individuals. Participants respond to 11 items describing various levels of contact they have had with autistic individuals ranging from no contact to indirect contact (e.g., viewing documentaries, movies, or television shows about people with autism), to direct contact (e.g., having a relative who has autism). Each item is weighted depending on the degree of intimacy and contact recorded. The rank of the item indicating the most frequent and intimate contact is used to assign a score. Higher scores indicate greater intimate and frequent levels of exposure. Previous studies have yielded an acceptable alpha level of .64 (Kim, 2021). Cronbach's Alpha in this sample was high, 0.81.

***Case Summary***

Participants were presented with a fictional criminal case summary involving a 30-year-old male defendant who was arrested and appeared in court on a charge of stalking (see Appendix I). This vignette was adapted from Phillips et al. (2004) and describes the male defendant engaging in persistent displays of affection towards a female nurse. He was described as verbally abusive when police attempted to handcuff him. The case summary was 336 words in length.

This study utilised a vignette methodology, one of the most widely utilised tools for exploring attitudes towards vulnerable groups (Swami 2012). The use of vignettes is also in keeping with the methodology used in previous limited research into this area (Berryessa et al., 2016; Maras et al., 2019). The developed vignette portrayed the defendant as an adult, as research to date suggests that much of the available limited literature within the field has explored adults' perceptions of children's testimony (Burrows & Powell, 2014), which could perhaps be viewed very differently from that of adults, given that by virtue of their age, children are automatically considered vulnerable. However, in the cases of vulnerable adults, they must demonstrate that they meet the target criteria of a particular vulnerability category. Indeed, across the limited literature, there appears a substantial lack of research exploring jury decision making towards autistic adults who utilise special measures, which the current research seeks to address.

In addition, a stalking offence was chosen given that the use of physical assaults has been the focus of much previous research exploring mock-crime decision-making regarding autism. Given the heterogeneity within cases, it has therefore been suggested that further research exploring autism in crimes which have an element of social understanding warrants attention (e.g., Devine & Mojtahedi, 2021). Certainly, characteristics of autism including obsessive pursuit of certain interests (stemming from a lack of understanding of the effects of pursuing such behaviour), and misinterpreting interpersonal cues (e.g., signaling that contact with a person is unwanted), alongside social cognitive deficits, may increase vulnerability to stalking behaviours. Similarly, changes to an autistic individual's opportunity to participate in their special interest may also trigger distress and aggression, which may unintentionally result in illegal behaviours (Brewer & Young, 2015).

***Court Summary and cross-examination***

Following the case summary, participants were provided with a court summary and cross-examination (see Appendix J). The court summary contained a short transcript of the prosecutor questioning the defendant in court. The defendant's behaviour, at both the time of the crime and at court, is presented as consistent with traits of autism. This includes impaired social communication, limited eye contact, restricted and repetitive behaviours, as well as off-topic intrusions (American Psychiatric Association, 2013). Focus was directed towards the defendant's social and communication impairments, given that these have been found to be the most prominent symptoms presented during the criminal-legal process (Berryessa, 2017; 2021). In the case of the intermediary conditions, during cross-examinations, an intermediary was present and intervened when the defendant was asked questions that were deemed inappropriate for the defendant's level of functioning. Instructions were presented in line with the Crown Court Bench Book's information on how the judge instructs the jury about the role of the intermediary (Judicial Studies Board, 2011). Therefore, participants were advised that the intermediary was not an expert, was independent, was present to assist with two-way communication, and would only interject if a communication issue arose (Judicial Studies Board, 2011). The questions asked by the barrister included autism-appropriate questions and autism-inappropriate

questions. The selected inappropriate questions included various parts of questioning that often appear challenging for individuals with autism. Within the intermediary present conditions, the intermediary intervened when inappropriate questions were asked with "Excuse me, Your Honour, that question (for example) is too open. Please could counsel rephrase using specific and supportive cues?" During the cross examinations without intermediary, the cross examination was conducted without interruptions. All other content was consistent across conditions.

### *Autism Diagnosis Disclosure*

Following the court summary, participants in the autism disclosure conditions were advised that the defendant had been assessed by a forensic psychiatrist and had received a diagnosis of autism. They were provided with information outlining how the defendant's autism manifests (adapted from Maras et al., 2019). This included idiosyncratic speech and atypical intonation, repetitive, nervous, and 'stimming' behaviours, and inappropriate eye contact. In addition, participants were advised of how the defendant's autism may have specifically impeded his testimony at court. A copy of the autism diagnosis disclosure testimony is contained in Appendix K. Participants in the no support conditions received no information pertaining to the defendant's diagnosis or further information describing how his autism manifests or may have impacted upon his testimony.

### *Attributions of Guilt*

After reading the vignettes, participants were provided with the definition of stalking from the Protection from Harassment Act (1997) and asked to provide a recommended verdict and sentence length. Participants were also instructed to answer a series of forced ranking and multiple-choice questions on the defendant, legal consequences, his criminal intention, and legal and moral responsibility (adapted from Berryessa et al., 2015). Example statements include 'There was criminal intention behind Mr Murphy's actions'. Responses were measured on a 1-6 Likert scale ranging from 1 ('strongly disagree') to 6 ('don't want to respond'). Participants were also asked to provide qualitative responses regarding why they gave their ratings (e.g., Why did you give this rating? Please explain your answer). A copy of these questions can be found in

Appendix L.

**Procedure**

Participants were directed to an online survey tool using Jisc Online Surveys. Participants accessed the online survey through a link provided in the study advert. The study took approximately 30 minutes to complete. After reading the information sheet detailing the aims and procedure of the study (see Appendix M), participants provided informed consent via an electronic consent form (see Appendix N). Participants completed the three attitudinal measures designed to assess openness, awareness, and contact with autistic individuals. These measures were displayed in sequential order on individual pages. Following this, participants were randomly assigned to one of four experimental conditions: (1) Autism diagnosis/information ($n$=44), (2) Intermediary ($n$=50), (3) Both autism diagnosis/information and an intermediary ($n$=47), and finally, (4) No support ($n$=54). Randomisation of conditions minimised the potential for systematic biases within these variables. All participants were asked to read the case vignette, followed by the court summary and cross examination. Participants in the autism diagnosis disclosure and intermediary conditions were also provided with the relevant information. Following this, participants returned judgements of guilt, provided a recommended sentence length, as well as attributions of criminal intention, legal responsibility, and moral responsibility. To conclude, participants were fully debriefed (see Appendix O).

**Ethical Considerations**

Ethical approval for this study was granted by the University of Nottingham's Faculty of Medicine and Health Sciences Research Committee (Ethics Reference Number: FMHS 498-0322, see Appendix P). All participants were required to provide informed consent to participate in the study (see Appendix N). The study had a potential risk of causing psychological harm due to the sensitive topics raised. These included participants being asked to provide some information about autism and being presented with an outline of a fictional non-violent crime, focusing on stalking. To overcome this, there was a warning as part of the participant's information sheet. Participants were strongly recommended not to participate if they believed that the topics raised in this study might cause

distress or anxiety. They were further advised that they could withdraw at any point during the research for any reason, before submitting their answers. Due to the sensitive nature of the topics involved, and to accurately resemble the UK judicial system, all participants were required to be aged 18 and over. Following the study, participants were fully debriefed and presented with the researcher's contact details, as well as websites for further support including victim support and support line (see Appendix O). The General Data Protection Regulations (GPDR) were adhered to throughout. All anonymised data were stored confidentially using password-restricted files and up-to-date virus software.

### Analysis Approach

Quantitative data were analysed using a range of inferential statistical methods. A chi-square test of independence was used to examine the effect of experimental condition on verdict. A one-way analysis of variance (ANOVA) explored sentence length recommendations across conditions. Next, a one-way multivariate analysis of variance (MANOVA) was run to examine the effect of experimental condition on criminal intention, legal responsibility, and moral responsibility ratings, with separate univariate tests conducted on the three dependent variables. A multiple regression was run to predict sentence length from participants' openness, awareness, and level of contact with autism. Finally, qualitative data were analysed using qualitative content analysis. Responses to open-ended questions were explored for commonalities, and categories were developed directly and inductively (Elo & Kyngas, 2008; Zhang & Wildemuth, 2009). This allowed for a more nuanced exploration of participants' rationale for their judgements to extract a richer meaning from the data, thereby providing an advantage over purely quantitative methods.

## Results

For all statistical analyses, IBM SPSS (version 26, IBM Corp, 2011) was utilized with a p-value of 0.05 set as the threshold for statistical significance.

### Primary Analyses

#### Guilty Verdicts

In total 47.7% of participants delivered a guilty verdict, and 52.3% returned a not guilty verdict. A Chi-square test of independence was conducted between experimental conditions and the dichotomous verdict. All expected cell frequencies were greater than five. There was no statistically significant association between experimental conditions and verdict outcomes, $\chi 2(3) = 5.97$, $p = 0.11$. However, participants in the intermediary condition returned a higher proportion of guilty verdicts. The association between variables was small (Cohen, 1988), Cramér's V = 0.16. Figure 4.1 below presents the verdicts across experimental conditions.

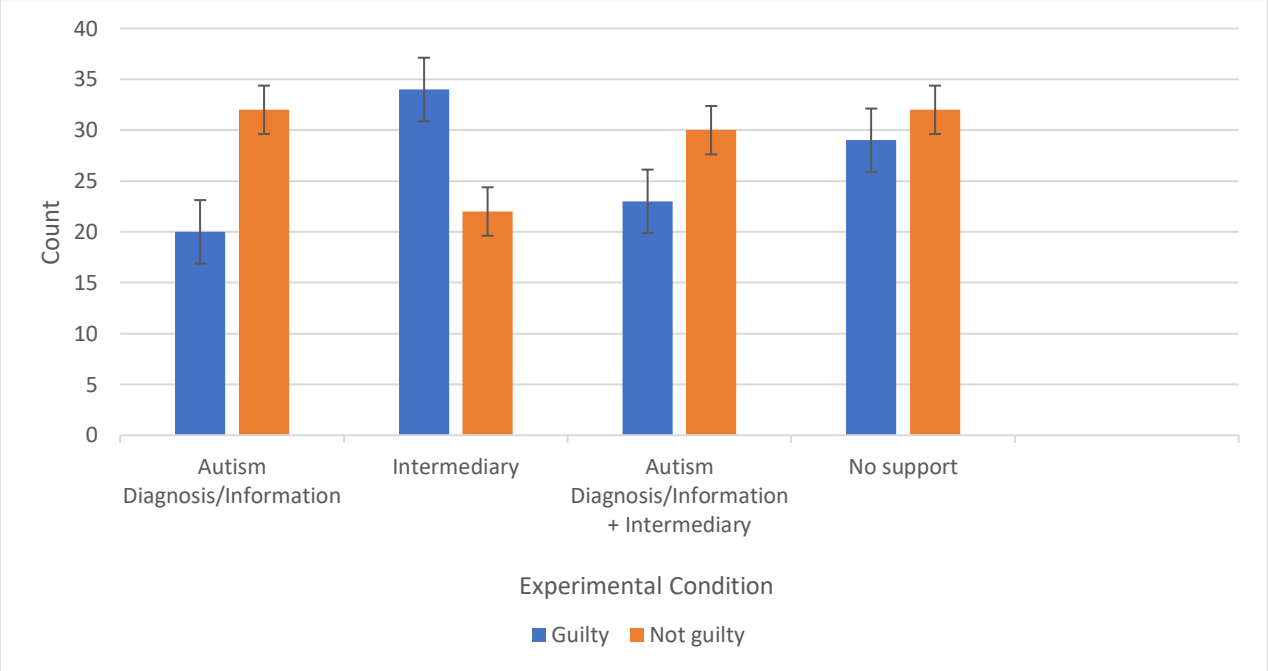



**Figure 4.1**

*Dichotomous Verdicts as a Function of Experimental Condition.*

***Sentence Length***

A one-way ANOVA was conducted to determine if sentence length differed across experimental conditions. Participants were allocated to one of four conditions: autism diagnosis/information ($n = 44$), intermediary ($n = 50$), intermediary and autism diagnosis/information ($n = 47$), and no support ($n = 54$). One outlier was removed, as assessed by a boxplot; data were normally distributed for each group, as assessed by visual inspection of a Normal Q-Q plot, and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = 0.06$). Data are presented as mean ± standard deviation.

Sentence lengths were shortest in the intermediary condition (0.76 ± 1.56), increasing when an autism diagnosis/information was provided (1.39 ± 4.77), followed by both autism diagnosis/information and an intermediary (1.49 ± 2.31), and finally, those in the no support condition returned the longest sentences (1.96 ± 5.12). However, the differences between these groups were not statistically significant, $F(3, 191) = 0.87$, $p = 0.46$. Figure 4.2 below presents these data.

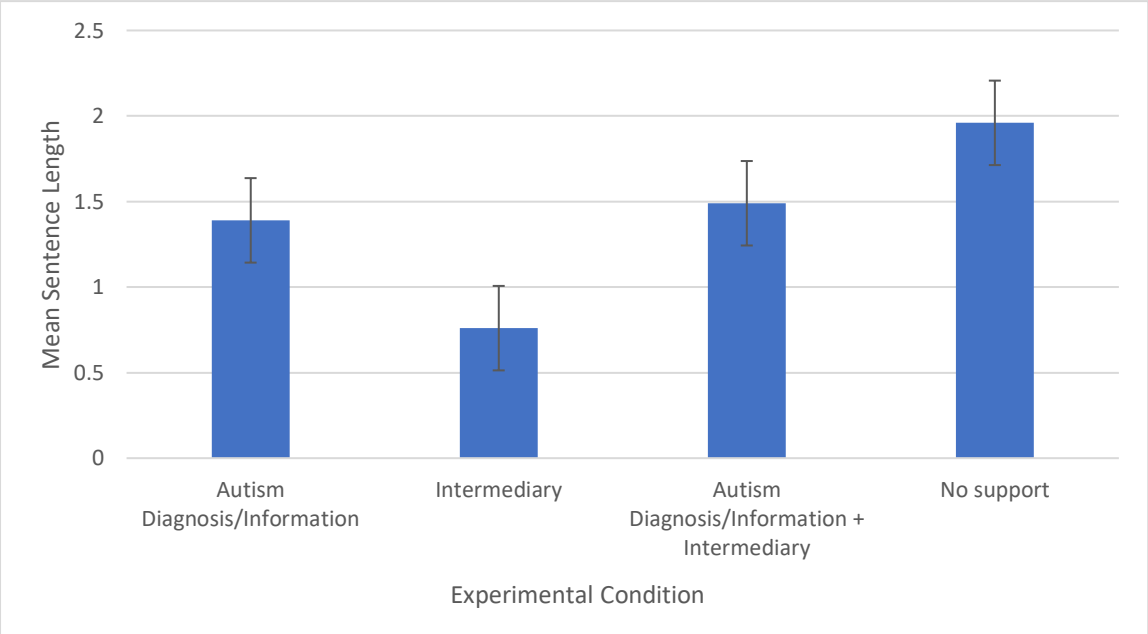



**Figure 4.2**

*Mean Sentence Length Recommendations*

***Criminal Intention, Legal Responsibility, Moral Responsibility***

A One-Way multivariate analysis of variance was conducted to determine the effect of experimental condition on criminal intention and legal and moral responsibility ratings. Three measures of intention and responsibility were used: criminal intention, legal responsibility, and moral responsibility. Data are expressed as mean ± standard deviation. Preliminary assumption checking revealed that data were normally distributed, as assessed by visual inspection of a Normal Q-Q plot; there were no multivariate outliers, as assessed by Mahalanobis distance (no values exceeded 16.2) respectively; there were linear relationships, as assessed by scatterplots; no multicollinearity; and there was

homogeneity of variance-covariance matrices, as assessed by Box's M test ($p$ = 0.91). The differences between conditions on the combined dependent variables were statistically significant, $F(9, 525.84) = 1.93$, $p = 0.04$; Wilks' $\Lambda = 0.92$; partial $\eta^2 = 0.03$. Follow-up univariate ANOVAs found that ratings of criminal intention ($p = 0.64$), legal responsibility ($p = 0.21$), and moral responsibility ($p = 0.12$) were not statistically significantly different between conditions. Figure 4.3 below presents these data.

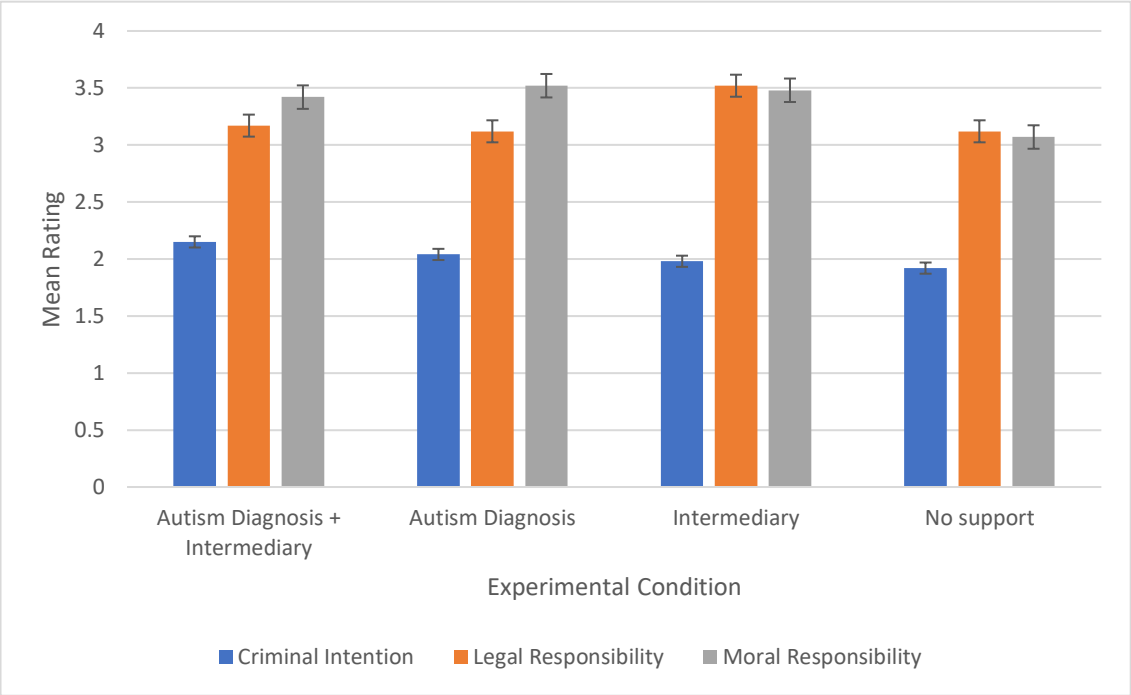



**Figure 4.3**
*Mean Criminal Intention, Legal Responsibility, and Moral Responsibility Ratings as a Function of Experimental Condition.*

## Secondary Analyses

### *Regression Analyses*

A multiple regression was run to predict sentence length from participants' openness, awareness, and level of contact with autism. There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 0.70. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by

tolerance values greater than 0.1. There were no studentized deleted residuals greater than ±3 standard deviations, and no leverage values greater than 0.2. One case for Cook's distance was above 1 and was therefore removed. The assumption of normality was met, as assessed by a Q-Q Plot.

The multiple regression model statistically significantly predicted sentence length recommendations with the combined predictors explaining 5.2% of the sample variance in sentence length, $F(3, 190) = 4.04$, $p = 0.01$. All three variables contributed statistically significantly to the model, $p = 0.01$, although the measure of association was small ($d = 0.04$), in accordance with Cohen (1988). Results suggest that participants who scored higher in their awareness of autism were more likely to return longer sentence length recommendations. However, participants' openness and contact with autism did not significantly correlate with sentence length recommendations. Regression coefficients and standard errors can be found in Table 4.1 below.

**Table 4.1**

*Multiple Regression Between Participants Awareness, Openness, and Contact with Autism on Sentence Length Recommendations.*

| Predictors | Unstandardized Coefficients | Standardized Coefficients | Beta | t | Sig. |
|---|---|---|---|---|---|
| Awareness of autism | 0.12 | 0.04 | 0.22 | 3.13 | .002 |
| Openness towards autism | -0.11 | 0.08 | -0.10 | -1.38 | .168 |
| Contact with autism | -0.04 | 0.07 | -0.04 | -0.53 | .599 |

**Qualitative Content Analysis**

Participant's qualitative responses to open-ended questions were analysed using a content analysis approach to allow for exploratory analysis. This approach was considered important to gain deeper insight into participants' decision-making processes and mitigates concerns regarding verisimilitude, as critiqued in Chapter Three, by capturing nuanced reasoning beyond numerical outcomes alone.

**Verdict**

Participants were asked *'Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? - Why did you give this rating? Please explain your answer*'. These open responses were coded into the following categories: (i) Criminal intent; (ii) Understanding/awareness and finally, (iii), Legality. Table 4.2 provides example responses per category.

***Theme 1: Criminal intent***

Many participants perceived the defendant as lacking criminal intent and motive. Many felt that it was not his intentions to scare or distress the victim, rather his misunderstanding of social interactions, due to his autism, and his misguided attempts at being "friendly." This was mirrored across conditions, regardless of the level of support provided. Even in the condition whereby no expert evidence or an intermediary was present, many still perceived the defendant as lacking criminal intent, and some indicated that they believed the defendant had autism, despite autism not being explicitly stated.

***Theme 2: Understanding/Awareness***

Similarly, across conditions, many felt that the defendant lacked sufficient understanding and awareness of his actions and the consequences of his behaviour. Many felt that he was unaware of the severity of his behaviour, due to his autism diagnosis. Others felt that he did not understand that he was harassing the victim, therefore it was "not his fault." This led to many participants returning a 'not guilty' verdict. This is evidenced in one participant's response "He is not guilty because of the clause, which he knows or ought to know amounts to harassment of the other.'" However, views appeared mixed,

irrespective of the level of support provided. Some respondents returned guilty verdicts, believing that the defendant did take action that "amounted to harassment of another" and that he "ought to know amounts to harassment of another."

***Theme 3: Legality***

Generally, when an intermediary was provided, many participants felt that the defendant legally met the definition of stalking and therefore perceived him as a guilty; however, many viewed his autism as a mitigating factor. As one participant noted, “he was still guilty in the eyes of the law, even if I don't agree he's guilty morally.” However, when no support was provided, a greater number of participants perceived the defendant to be guilty, as one respondent expressed, “factually the defendant did the things outlawed by the statute.”

**Sentence**

Participants were *asked 'Should Mr Murphy receive a prison sentence? Why did you give this rating? Please explain your answer'*, and *'On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? Why did you give this rating? Please explain your answer'*. These open responses were coded into the following categories: (i) Education; (ii) Therapy; (iii) Counselling (iv) Mental Health Treatment; and finally, (v) Community Intervention. Table 7 provides example responses per category.

***Theme 4: Education***

Across all four conditions, education was the most suggested recommendation over that of a custodial prison sentence. Many believed that education should be offered to the defendant, to support him to understand that his behaviour was inappropriate and to help him make more informed decisions in the future. Others identified providing education to avoid escalations in his presentation and behaviour and to support his understanding of other’s perspectives and feelings. One participant shared the idea for education to be tailored specifically to the defendant’s individual needs. Interestingly, within the expert evidence condition, another participant felt that the defendant should be offered education in the

first instance, after which he should be held legally responsible for his actions and face a prison sentence should he commit the same or similar crime.

***Theme 5: Therapy***

In light of the defendant's autism, many felt that he should be offered therapy over that of a custodial prison sentence. Some participants were of the view that prison would be too triggering for the defendant and increase his vulnerabilities, alongside being detrimental to his mental health and well-being. Others felt that prison could be a dangerous place for autistic individuals. One participant recommended group therapy to be a suitable alternative to a custodial sentence, to support the defendant's development and understanding of social interactions, given his autism. Others also indicated that therapy should be provided under strict supervision and monitoring.

***Theme 6: Counselling***

Counselling was also identified by participants. One participant in the no support condition felt that the defendant required counselling to help explain to him that what he did was wrong. Similarly, within the intermediary condition, one respondent believed that the defendant was unaware of the distress he was causing and would therefore likely benefit from counselling.

***Theme 7: Mental Health Treatment***

Some also recommended mental health treatment for the defendant, for instance a specialised facility targeted for those with autism, e.g., an autism inpatient unit. Others felt that he needed to be assessed by a psychologist and perhaps required medication.

***Theme 8: Community Intervention***

Community intervention was also recommended, including probation and assisted living facilities. Although, this was a less commonly cited theme across all four conditions.

**Table 4.2**

*Themes identified from the Qualitative Data, with Example Quotes*

| Theme | Condition | Example Responses |
|---|---|---|
| **Criminal Intent** | Autism Diagnosis/Information and Intermediary | *"There was no criminal intent, and Mr. Murphy was not aware that what he was doing constituted harassment"* |
| | Autism Diagnosis/Information | *"He was not stalking with malicious intent; it was due to his autism that he didn't understand what he was doing was wrong"* |
| | No support | *"Clause B in the stalking statute is key in this case: "which he knows or ought to know amounts to the harassment of the other". I do not believe Mr. Murphy knew, or rationally believed, that he was causing harm with his actions. He has severe autism spectrum disorder and that is an intellectual and developmental disability that can affect his comprehension of guilt in the crime. Because of* |

| | | |
|---|---|---|
| | | *this, I would not say he was guilty of stalking, it is due to the disability and unknowing of boundaries due to it as well"* |
| **Understanding/Awareness** | Expert Evidence and Intermediary | *"He has autism and clearly was not in state to fully understand the consequences of his actions. He should not be held responsible"* |
| | Intermediary | *"I think he was guilty of stalking but probably didn't understand that what he did was wrong/illegal and genuinely didn't pick up on her disinterest"* |
| | No support | *"He did harass someone even if he wasn't fully aware of the consequences of his actions"* |
| **Legality** | Autism Diagnosis/Information | *"Guilty only because he did break the law. However, it seems Mr Murphy is unaware of what stalking means and may not be able to* |

| | | |
|---|---|---|
| | | *comprehend the full extent of how this can affect someone. While he was wrong legally, some leeway must be given"* |
| | No support | *"Just based on looking at his actions and the definition of stalking, it cannot be denied that he did do it. He did stalk her, and he made her feel unsafe in her own environment"* |
| **Education** | No support | *"Given he is not familiar with certain societal concepts, he should receive education tailored to his needs, which will help him understand his actions and will educate him, so similar incidents may never occur again. If Mr. Murphy is charged, then it shows that the prosecution is still unable to recognise basic neurological disorders"* |
| | Autism Diagnosis/Information and Intermediary | *"Mr. Murphy's actions were not his fault. I believe instead of* |

| | | |
|---|---|---|
| | | *sentencing him to prison, he should visit an educational center to learn why his actions were wrong and how he can rectify them in the future"* |
| **Therapy** | Autism Diagnosis Information | *"A prison sentence is suboptimal to his condition. Guided therapy, whilst under strict supervision would be better."* |
| | Intermediary | *"The idea of therapy and education seems more valuable to correct his behaviours than punishment. Unless he is violent or turns into a repeat offender, jail time does not seem as suitable"* |
| **Counselling** | Autism Diagnosis/Information | *"Prison would likely be extremely stressful and detrimental for Mr. Murphy's mental health and wellbeing. He needs access to therapy and resources to help him"* |

| | | |
|---|---|---|
| | Intermediary | *"It appears that Mr Murphy was unaware of the distress he was causing, and that he would likely benefit from therapy/counselling"* |
| | No support | *"He needs education or counselling to help explain to him that what he did was wrong"* |
| | Autism Diagnosis/Information and Intermediary | *" Given the uncertainty regarding Mr. Murphy's intent and understanding of his actions, I believe that a prison sentence may not be the most appropriate course of action. Instead, providing education and therapy may be a more effective way to address the issues related to his behaviour, especially considering his diagnosed condition"* |
| **Psychiatric/Mental Health Input** | Intermediary | *"Rather than sending him to prison, one must send him to a Psychiatrist/Clinical Psychologist"* |

| | | |
|---|---|---|
| | No support | *"There shouldn't be jail time but rather an inpatient stay at a unit that specializes with autism and ongoing help"* |
| **Community Intervention** | Intermediary | *"I really don't think that a prison sentence will do anything to make Mr Murphy understand what he has done wrong, I think other community-based interventions are more appropriate"* |

Table 4.3 below displays the frequency of responses according to themes per condition. Participants could be coded with several subthemes in one answer; therefore, the total scores differ for each theme and across conditions.

Regarding verdict attributions, participants across all conditions generally identified the defendant's lack of understanding and awareness as mitigating factors in attributing guilt. Those in the intermediary condition were most likely to acknowledge the defendant's diminished understanding and awareness, yet they were equally likely to judge that the defendant legally met the criteria for stalking. Interestingly, participants who received both an autism diagnosis disclosure and intermediary support were less likely to consider the defendant legally responsible.

In relation to sentencing recommendations, many participants favoured education and therapy over custodial imprisonment. Recommendations for therapy and education were highest when either an autism diagnosis was disclosed, or an intermediary was present individually; however, these recommendations did not increase when both supports were combined.

Participants in the no-support condition were less likely to recommend therapy or education and tended to cite mental health treatment more frequently. Community intervention was identified more frequently when an autism diagnosis and contextual information were provided.

**Table 4.3**

*Coding Scheme and Frequency*

| Theme | Autism Diagnosis/ Information | Intermediary | Both | No Support | Total |
|---|---|---|---|---|---|
| **Verdict** | | | | | |
| Criminal Intent | 5 | 7 | 5 | 8 | 25 |
| Understanding/Awareness | 12 | 18 | 11 | 13 | 54 |
| Legality | 4 | 22 | 2 | 9 | 37 |
| **Sentence** | | | | | |
| Education | 9 | 10 | 6 | 4 | 29 |
| Therapy | 11 | 11 | 7 | 2 | 31 |
| Counselling | 0 | 2 | 1 | 2 | 5 |
| Mental Health Treatment | 0 | 1 | 3 | 4 | 8 |
| Community Intervention | 4 | 2 | 2 | 0 | 8 |

## Discussion

The present study aimed to explore the provision of an autism diagnosis, an intermediary, and a combination of both, on jury-decision making outcomes involving an autistic defendant. Firstly, the research aimed to investigate whether providing jurors with an autism diagnosis and supporting contextual information, an intermediary, or a combination of both influenced jurors' decisions. Specifically, the study examined defendant guilt, sentence length recommendations, and ratings of criminal intention, moral responsibility, and legal responsibility, compared to a condition in which no special measures were provided. Results indicated that attributions of guilt remained consistent across

conditions. Similarly, sentence length recommendations did not significantly differ; however, descriptive statistics indicated that sentence lengths were shortest in the intermediary condition, and the longest when no special measures were provided. Ratings of criminal intention, legal responsibility, and moral responsibility were not influenced by the presence of an autism diagnosis or intermediary. However, participants who scored highly in their awareness of autism were significantly more likely to return longer sentence length recommendations. Finally, qualitative data indicated that many viewed the defendant's autism as a mitigating factor for judgements of criminal intent and motive, believing that he was unaware of the severity or consequences of his actions. Many believed that the defendant should receive education and therapy rather than a custodial prison sentence.

Together, the findings of the current study suggest that providing an autism diagnosis and supporting information, along with the presence of an intermediary, did not significantly affect whether participants judged the defendant guilty or not. Similarly, the type of evidence or support presented had no meaningful effect on the length of sentences participants recommended. However, a more nuanced picture emerges when examining the combined ratings of criminal intention, legal responsibility, and moral responsibility. A multivariate analysis revealed a significant effect of experimental conditions on these ratings considered together, although follow-up univariate tests found no significant differences on any single variable. This suggests that while an autism diagnosis and the presence of an intermediary did not strongly influence isolated judgments, they did affect the overall pattern of participants' attributions. This highlights the importance of considering these constructs holistically as jurors may integrate multiple aspects of responsibility and intention when forming their judgments. Nonetheless, the relatively small effect size observed suggests that any influence of these factors is likely to be context dependent. Future research with larger sample sizes may clarify these relationships further.

Moreover, it can be argued that disclosing an autism diagnosis and the presence of an intermediary may enhance juror understanding of a defendant's neurodivergence. This in turn may influence how jurors evaluate the defendant's

mental state and accountability, whilst not directly influencing explicit verdict or punishment decisions. This holds important positive implications for encouraging the implementation of the intermediary scheme. Notably, the lack of significant findings regarding the presence of an intermediary on guilt or sentencing outcomes supports the effectiveness of the neutral and impartial role of intermediaries. This suggests that participants attributed improvements in the defendant's communication to the role of the intermediary without biasing their judgements. These results align with Krahenbuhl (2019) who similarly found no effect of intermediary presence on mock juror perceptions of child witnesses. Likewise, Ridley et al. (2015) found that whilst the presence of an intermediary improved perceptions of the interview, there were no effects on perceptions of the child. Collectively, these findings challenge previous concerns suggesting that intermediaries may serve to bias jury perceptions, such as fears that jurors may misinterpret the role of an intermediary (e.g., see O'Mahoney, 2010). It has also been suggested that perhaps more extensive and detailed instructions may be required from the judge regarding the role of intermediaries (Smethurst & Collins, 2019), and that perhaps their presence may be best limited to the pre-trial preparation phase only (Krahenbuhl, 2019). To address this, future research could explore jurors' understanding of why an intermediary is present, helping to ensure they fully appreciate the intermediary's neutral role.

Conversely, the absence of significant effects of experimental conditions on verdict and sentencing attributions is somewhat surprising. These findings directly contrast previous research indicating that autistic offenders tend to be judged more leniently when their autism diagnosis is disclosed (Berryessa, 2016, 2018; Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021). The current findings therefore do not align with Kelley's discounting principles (1971) suggesting that providing an autism label and information offers jurors an alternative explanation for the defendant's criminal behaviour and atypical court behaviours, potentially leading to more favourable judgements. Similarly, the results conflict with expectations violation theory (Burgoon & Hale, 1988), which suggests that if a defendant's behaviour differs from jurors' expectations, they may be judged more harshly. This suggests that other factors may moderate how autism diagnosis and communication support affect jurors' decision making,

and that discounting principles and expectations violations may play a less influential role in this context. It is also possible that jurors relied more on definitions of stalking than on diagnostic or contextual information when forming verdict decisions.

A potential explanation for the lack of significant effects for guilt and sentencing outcomes may lie in the measurement approach used for sentencing. In this study, participants had free choice to recommend a sentence but were not informed of any minimum or maximum sentencing guidelines. This could perhaps be a limitation, as it may have triggered uncertainty in participants' sentencing decisions. On the basis of this, future research should make use of the Sentencing Council's guidelines to provide clearer boundaries. An alternative explanation relates to the influence of empathy and compassion on sentencing judgements. Qualitative responses revealed that many participants indicated that they felt prison would be too triggering for the defendant, increase his vulnerabilities, and risk further deteriorations in his mental health and well-being. Many participants expressed the view that the defendant should receive alternatives to a prison sentence, such as education or therapy. This view aligns with existing research documenting the negative impacts of prison sentences for autistic people, including increased anxiety, stress, and heightened victimisation (Berryessa, 2021; Robertson & Mcgillivray, 2015).

The study also sought to explore the influence of participants' openness, awareness, and level of contact with those with autism on jury decision-making. Results suggest that participants who scored highly in their awareness of autism were more likely to return longer sentence length recommendations. However, in contrast to predictions, participants' openness and contact with autism did not significantly correlate with sentence length recommendations. These unexpected findings may relate to theories of attribution and accountability, where increased awareness leads jurors to perceive the defendant as more responsible for their actions despite their diagnosis (Weiner, 1985). Jurors with a greater awareness of autism may also believe that those with autism do have control over their actions and behaviours, and that not all autistic individuals are dangerous or engage in law-breaking acts. In contrast, those with less knowledge of autism

may have relied more on stereotypical thinking and personal biases to inform their decision making. This interpretation should be treated cautiously given the small amount of variance explained by the model. Moreover, the lack of significant association between openness or contact with autism and sentencing diverges from the contact hypothesis (Allport, 1965). This theory suggests that positive intergroup contact can reduce prejudice and intergroup conflict and improve attitudes. Within the current study, perhaps participants' level of contact with autism was too small to detect a meaningful impact on sentencing outcomes.

Finally, the study also aimed to examine participants' qualitative responses to better understand the decision-making processes in this context. Findings indicated that many participants felt that the defendant lacked criminal intent and motive. Rather than intentions to scare or distress the victim, many interpreted the crime as stemming from the defendant's misunderstandings of social situations, and misguided attempts at being 'friendly.' This is in keeping with the findings of Maras et al. (2019) who similarly found that participants who were made aware of a defendant's diagnosis, and provided with additional information regarding autism, tended to focus more on mitigating factors, such as the lack of intent and the defendant's neurodivergence.

Similarly, across conditions, many felt that the defendant lacked sufficient understanding and awareness of his actions and the consequences of his behaviour. Many felt that he was unaware of the severity of his behaviour, due to his autism diagnosis, and that he did not understand that he was harassing the victim, therefore it was not his fault. This perspective contributed towards higher not guilty verdicts. Importantly, some participants indicated that they believed the defendant had autism even in conditions where autism was not explicitly disclosed. This suggests that general members of the public may hold greater awareness and understanding of autism than previously thought (Maras et al., 2019). This reciprocates the findings of Stronach et al. (2019) who reported a consistent understanding of autism in community populations. This may also indicate the presence of pre-existing stereotypes of atypical behaviour in legal contexts.

Although not a primary aim of the current study, the findings highlight the need for exploration of gender differences. Descriptive statistics indicated that female participants returned greater guilty verdicts when an intermediary was present, alongside longer sentence lengths, especially in conditions involving disclosure of autism or no support. However, due to the uneven distribution of male versus female participants, it was not possible to statistically analyse these differences further. Notably, the sample utilised here was particularly female dominated (64% of respondents were female). Despite this, analysis of participants' gender across experimental conditions revealed no significant main effects or interactions. Nonetheless, this imbalance is important to consider further, considering research suggesting that gender influences attitudes towards autism, with females demonstrating more positive attitudes than males (Kuzminski et al., 2019).

**Limitations and Directions for Future Research**

Limitations of the research are acknowledged and should be critically considered by future researchers within the field. Firstly, a vignette detailing an autistic male stalking case was employed, thereby limiting the wider generalisation of findings to other crimes, disabilities and impairments. Further research exploring the effects of juror leniency in other populations and demographics, including co-morbid mental health difficulties and other developmental diagnoses (e.g., Down syndrome, ADHD) warrants attention. Additionally, while Chapter Three acknowledges the limitations of vignette methodologies, particular attention was paid to the appropriateness of the methods employed in this study. Therefore, concerns regarding student samples and written scenarios were considered. Within the current study, a diverse non-student sample was utilised, making the use of written vignettes less problematic. Nonetheless, future research should investigate whether similar effects are maintained when using alternative formats, e.g., video testimony.

The use of repeated measures designs is also worth considering to more accurately resemble the UK judicial system. This is important, given that the prosecution presents before that of the defence, therefore an autism diagnosis is not presented until later in the trial, during which time the jury may have

already formed initial judgements and stereotypes on the defendant. It would also be timely to utilise more naturalistic methodologies, for instance live video testimony to increase ecological validity, given that vignette methodologies are the most widely used within the field at present (Berryessa et al., 2016; Maras et al., 2019) and may be limited in terms of their ability to denote the idiosyncratic aspects of speech found in real life and video testimony. Future work may also benefit from examining how deliberation processes interact with diagnostic disclosure.

Finally, questionnaire measures were used to explore participants' openness, awareness, and level of contact with autism, and these were administered prior to engaging in the jury simulation exercise. This may have inadvertently introduced demand characteristics or priming effects, potentially biasing their responses. This may have heightened participants' focus on autism. Future research may seek to overcome this through counterbalancing the order of measures, or alternatively, including control groups or piloting. Furthermore, it is important to note that such measures may not accurately reflect implicit attitudes held by participants and may be subject to the effects of social desirability bias. Additionally, research reveals that explicit attitudes towards those with autism are more positive compared to implicit attitudes (Dickter et al., 2020). Greater exploration of implicit and explicit attitudes, and the differences and similarities between them, are therefore strongly encouraged. Future studies may benefit from incorporating implicit association measures to capture unconscious bias.

Building on the findings presented in Chapter Two's systematic review, future research should examine other support measures shown to have potential benefits, such as the use of video links or pre-trial visits, to determine whether similar effects emerge when these measures are tested both independently and in combination. Future research should also seek to explore dependent measures beyond guilt and sentencing outcomes, particularly considering concerns surrounding ecological validity. In the present study, participants were first asked to deliver a categorical guilty vs not guilty verdict, before following this up with continuous measures to allow for greater insight into participants' decision-

making processes. Building on this, further studies may benefit from utilising assessments of defendant credibility or reliability. To achieve this, as identified by Smith and Golde (2024), there is a need to develop psychometrically robust measures of credibility within jury settings. This would also allow for greater standardisation across studies and improve the comparability of findings.

Greater exploration into the role and impact of intermediaries is also warranted. The findings from the current study suggest that the presence of an intermediary, who actively intervened, did not directly influence guilt attributions or sentence recommendations. In contrast, Krahenbuhl (2019) found a tendency towards a guilty verdict when an intermediary was present but refrained from intervening. Moreover, Henderson (2015) conducted interviews with judges, advocates, and intermediaries to explore the merits of the intermediary scheme. The findings revealed contrasting views: some expressed concerns that intermediaries might be too intrusive and disrupt a fair trial or disrupt counsel's rapport with the witness. Alternatively, others reported occasional problems with intermediaries intervening too little, where non-intervention could be perceived as an unnecessary appointment. These conflicting perspectives highlight an important area for future research, specifically examining the effects of intermediary presence when they intervene, compared to when they do not.

Finally, future research should also further consider the role that culture plays within jury-decision making outcomes. This was not possible to explore within the current study, due to limited diversity within the sample population. However, this is critically important to consider in future research, considering the overrepresentation of Black, Asian, and minority ethnic individuals (BAME) at every stage of the criminal justice system in England and Wales. Concernedly, there is a notable substantial lack of attention directed towards exploring BAME individuals' experiences with sentencing and courts, which requires our utmost urgent attention (Robertson & Wainwright, 2020). Addressing this gap would also improve the external validity of jury simulation research more broadly.

**Conclusions**

Taken together, these findings suggest that while disclosing an autism diagnosis and the presence of an intermediary may not directly reduce guilt attributions or sentence recommendations, they may serve to influence evaluations of a defendant's mental state and responsibility. This novel research offers practical advice for criminal justice professionals, highlighting the potential value of encouraging the disclosure of an autism diagnosis and the use of intermediaries to enhance juror understanding of neurodivergence. This may ultimately serve to reduce discrimination and promote fair access to trial and equal justice for all neurodiverse defendants.

## Rationale for Chapter Five

Chapter Two highlights the need for improved support for autistic and learning-disabled individuals during cross-examination, emphasising the benefits of intermediaries and communication aids. Chapter Three builds on this further by reviewing the reliability and validity of jury simulation studies, however, it identifies key issues relating to 'verisimilitude', particularly surrounding sampling bias, trial stimuli, and dependent variables, alongside methodological shortcomings. To address these gaps, Chapter Four presents an empirical research study exploring how disclosure of an autism diagnosis, intermediary support, and their combination, influence jurors' guilt and leniency judgements towards an autistic defendant. Utilising a controlled experimental design, and a diverse, representative sample, this research aims to inform more inclusive courtroom practices for autistic and learning-disabled defendants.

Building on the empirical concerns raised in Chapters One through to Four, Chapter Five offers a real-world case study describing the practical application of two communication tools – mood cards and a positive behavioural support intervention for a female forensic inpatient diagnosed with a learning disability. This chapter further complements the need to encourage the use of communication tools in autistic and learning-disabled populations, such as through the provision of intermediaries or providing information on diagnoses, as explored within Chapters Two and Four. However, critically, it highlights the importance of adopting an individualised, tailored, needs-led and holistic approach to support the diverse presenting needs of autistic and learning-disabled individuals.

# Chapter Five:

# Positive Behavioural Support and Mood Cards for a Female Forensic Inpatient with a Learning Disability: A Case Study

## Abstract

This case study is a factual account of a psychology assessment, formulation, and intervention for a client detained under the Mental Health Act, 1983 (as amended in 2007) in a Medium Secure Hospital within a London NHS Trust. The assessment was conducted as part of the client's recommended treatment pathway and was also used for the purposes of this case study, to fulfil the requirements for the Doctorate in Forensic Psychology course. Ms Z was referred to psychology services due to the risk she posed to herself and others through her self-harming behaviours and aggression towards staff when they attempted to intervene. Driven by referral, assessment, and formulation, Ms Z engaged in individual psychology sessions designed to create a Positive Behavioural Support Plan (PBS), and bespoke mood cards to support communication. Effectiveness was evaluated using a range of approaches, including outcome measures, incident reports, and behavioural observations. Overall, results suggest that the introduction of bespoke mood cards and a PBS plan were effective in reducing the frequency and severity of aggression and self-harming behaviour, with no return to baseline levels up to eight months following intervention. Positive improvements in overall psychological well-being, as measured by the CORE-10, were maintained between one- and two-month follow-up periods. Findings from this exploratory case study highlight how visual communication tools can enhance the effectiveness of behavioural interventions, demonstrating the core role communication plays particularly in learning disability populations. Implications for clinical practice and directions for future research are discussed.
[2]

[2] *Note: All names used in the report have been changed to preserve confidentiality. Client consent was sought and obtained. The client was deemed to have capacity and understood that taking part in the study did not affect services received. The assessment, formulation and intervention were supervised by a Forensic Psychologist and was discussed with the client's multi-disciplinary team (MDT) and responsible clinician (RC).*

## Introduction

This report summarises the assessment, formulation, and intervention of Ms Z, a 31-year-old female forensic inpatient with a diagnosis of Emotionally Unstable Personality Disorder and intellectual disability. Ms Z has been detained under Section 3 of the Mental Health Act since April 2013.

## Referral and Assessment

### *Referral Process*

Ms Z was referred to psychology services by the MDT during her ward round for assessment, formulation, and intervention due to the risk she posed to herself and others through her actions of self-harm and aggression towards staff when they attempted to intervene.

### *Assessment*

Ms Z's assessment involved observation and history taking through a series of clinical interviews. This followed a semi-structured CBT format, adapted to support Ms Z's learning and cognitive needs. Considering research suggesting that sequencing of historical events can be difficult in individuals with a learning disability (Bakker, 1970), a timeline was used to support Ms Z to focus on understanding the order of significant life events whilst reducing verbal demands. The use of a timeline also served to support Ms Z's understanding of the development of her areas of difficulty and mental health problems over time from childhood, adolescence, and early adulthood. Visual pictorial cards were used to support Ms Z to explore her thoughts, feelings, and behaviours at the time of the events, and when thinking about events in the present moment. This allowed for connections between past and present experiences. Traffic light images were used to support Ms Z to reflect on the intensity of emotions experienced. These approaches were taken alongside a review of Ms Z's case records, an update of her HCR-20 risk assessment (Historical Clinical Risk-20 Version 3; HCR-20V3, Douglas et al., 2014), and psychometric measures, to obtain an accurate timeline of her experiences and to assist the MDT in understanding and managing Ms Z's risks.

***Background history and development of the problems***

Ms Z experienced significant maladjustment in early life. In childhood, Ms Z was physically and emotionally abused, which led to her being taken into care at the age of two. She subsequently spent most of her childhood in the care system, living in a range of foster homes and children's homes, often moving on earlier than planned due to placements breaking down because of her violence and self-harm. Whilst in institutional care, Ms Z was sexually abused by a member of staff. Following this, Ms Z began hearing the voice of her abuser telling her to harm and kill herself. This led to significant and frequent ongoing suicide attempts. Reports also state that Ms Z disclosed that she was sexually abused by her father, although she later retracted this allegation. Following her father's death, Ms Z continued to experience significant grief and sadness in relation to his passing and at times of distress, expressed that she wanted to die so she could be with her father. It is further reported that Ms Z's mother experienced significant mental health problems, and often spent periods admitted as an inpatient, likely significantly impacting on her parenting capabilities.

***Education and Employment***

Ms Z had identified learning and behavioural difficulties as a child. She attended mainstream schooling for two years, before her transfer to a special education needs (SEN) school and college. Ms Z is not known to have engaged in any formal employment. However, during her time on the ward, she began working in the hospital café. This appeared to positively reinforce her sense of self and improve her relationships with others.

***Relationship History***

Ms Z's intimate relationship history remains limited. She was in an intimate relationship at the age of 18. The two lived together for a period until she was hospitalised due to a deterioration of her mental health. Although hospitalised, it appears that this relationship lasted for several years. The end of the relationship resulted in a further deterioration of her mental health including increased self-harm and challenging behaviour. No further details on the quality of this relationship, or the reason for the breakdown, are known.

During assessment, Ms Z had some form of support from her mother, sister, nieces and nephews who remained in frequent contact, and she reported one

close friend. She was also observed developing strong connections with staff and peers on the ward. Nonetheless, staff and peers moving on were significantly destabilising for her and coincided with an increase in self-harming behaviour.

***Mental Health***

At age 14, Ms Z was diagnosed with obsessive-compulsive disorder, social phobia, and high anxiety. Ms Z also received a formal diagnosis of Emotionally Unstable Personality Disorder. Evidence for this diagnosis related to her tendency to engage in impulsive behaviour, placing herself and or others at risk of harm, and showing a lack of regard for consequences. It was observed that her mood was very unpredictable, and could change quickly without any obvious antecedent, and that she could often display sudden outbursts of emotion which she had difficulty controlling.

***Self-Harm/Suicidal Ideation***

Ms Z has an extensive history of impulsive acts of self-harm, notably including tying ligatures, attempting to swallow dangerous objects or cause choking, running in traffic, headbanging, and biting or scratching herself. This occurred to varying degrees both in the community and while an inpatient; at the most severe, Ms Z required frequent restraints to prevent serious injury or death. These self-harming behaviours typically occurred in the context of emotional distress, ruminating on negative past experiences, and experiencing command hallucinations in the form of voices telling her to harm herself.

***Violence History***

Ms Z spent most of her adult life in learning disability hospitals due to her presentation of violence and self-harming behaviour. She has a long history of aggression towards professionals, particularly when they are intervening to prevent an act of self-harm. These behaviours started in childhood and adolescence, when she was violent towards staff in her care home, resulting in police involvement. While an inpatient, she bit, scratched, and punched staff members. There were numerous incidents of aggression during the case study period, both physical and verbal. Reports suggested that Ms Z's challenging presentation was longstanding and behavioural in nature and was compounded by her chronic EUPD and learning disability.

## Psychometric Measures

Ms Z completed the following psychometric measures to inform the assessment and formulation and to identify areas of strengths and weaknesses.

### *Rosenberg Self-Esteem Scale (Rosenberg, 1965)*

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be unidimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree,to strongly disagree. Scores range between 0-30, with higher scores indicating higher self-esteem. Scores below 15 indicate low self-esteem, 15-25 lie within the normal range, and above 25 is indicative of high self-esteem. This measure was completed with Ms Z considering her presentation of low sense of self and confidence, which often precipitated incidents of self-harming and aggression. Ms Z scored 14/30 on this measure, which falls just below the threshold of the normal range and suggests a borderline low level of self-esteem. Ms Z strongly agreed with items stating she felt useless at times and wished that she could have more respect for herself. When completing the scale, she reported feeling negative about herself but was unable to articulate why.

In critiquing the reliability and validity of the Rosenberg Self-Esteem Scale applied to learning disability populations, findings appear promising. Davis et al. (2009) reported moderate internal reliability of the scale in a sample of learning-disabled adults and adolescents. Similarly, Park and Park (2019) identified the scale to be a useful tool for measuring self-esteem in learning-disabled adolescents and adults, alongside measuring the effectiveness of self-esteem interventions. Considering this, whilst the Rosenberg Self-Esteem Scale was used here only for the purposes of assessment, on reflection, it perhaps would have been advantageous to also administer this measure post-intervention to evaluate changes to Ms Z's self-esteem.

## Cognitive Assessment

Subtests from the Wechsler Memory Scale (WMS-IV, Wechsler, 2008) and Wechsler Adult Intelligence Scale IV (WAIS-IV, Wechsler, 2014) were administered with Ms Z for memory assessment, as well as the Delis-Kaplan

Executive Function System (D-KEFS, Delis et al., 2001) to screen executive functioning. This was in response to observations regarding Ms Z's distractibility and difficulty paying attention, impulsive behaviour, and hyperactivity. Overall, the findings of the assessment suggest that Ms Z's perceptual reasoning and working memory were within the below average range. She also presented with deficits in cognitive flexibility (the ability to switch between thinking about two different concepts or to think about multiple concepts simultaneously) and verbal inhibition (the ability to inhibit or control impulsive automatic responses). Her strengths included processing speed, visual scanning, and number sequencing abilities. Recommendations involved briefing staff (including spaces such as ward rounds, Care Programme Approach (CPA) meetings) that Ms Z would likely benefit from new information being presented several times, and in a concrete fashion, so that she could rehearse and practice. This was encouraged to support Ms Z to encode information and prevent details from being forgotten. Regular recaps to check her understanding and retention were also advised, alongside frequent breaks to maximise Ms Z's attention and concentration. It was also advised to avoid overloading Ms Z with lots of information at once/at the same time, to ask her one question at a time, to keep questions relatively short and straightforward, and to allow her plenty of time to process the information and respond accordingly.

## Formulation

The "Five P's" framework (Weerasekera, 1996) was used to formulate Ms Z's difficulties. This model was chosen as it provides a clear, comprehensive, and systematic approach to considering historical and current factors which contribute towards an individual's presenting difficulties. This model also goes beyond focusing on internal experiences and considers the influence of wider systemic factors. Moreover, pragmatically grounded formulations, including the 'Five P's framework', have been suggested to be better suited to the risk assessment of violence (Johnstone, 2013). This type of formulation also allows it to be shared diagrammatically with both MDTs and service users in a simple and coherent way. This diagrammatical version was shared with Ms Z and the written

version with the wider MDT to ensure accuracy and completeness, and to facilitate collaboration (see Appendix T).

**Presenting Problems**

Ms Z's presenting problems include difficulties in accessing, recognising, and managing her emotions. Her presentation is further characterised by low self-esteem, self-harm, and suicidal ideation. She further experiences fluctuating mood states characterised by high levels of anxiety, low mood, and self-criticism, particularly when faced with psychosocial stressors.

**Predisposing Factors**

Ms Z experienced significant attachment trauma from a young age, including entering the care system at the age of two, her mother being emotionally unavailable during periods of depression, and sexual abuse by a professional caregiver and possibly also a parent. The environment in which she grew up was therefore likely not one which supported the development of attachments that would enable a stable sense of self, and an expectation of relationships with others as being physically or emotionally safe or supportive. Her sense of vulnerability and inadequacy likely caused her to develop an anxious insecure attachment style and likely negatively impacted her ability to form healthy adult relationships (Fonagy et al., 2003). The absence of a consistent and emotionally attuned caregiver likely limited Ms Z's opportunity to develop adaptive emotion regulation strategies and to mentalise about the internal states and intentions of others (Gambin et al., 2021). This was likely further challenged by Ms Z's learning needs (including poor concentration, slower processing speed, and memory). These experiences and beliefs likely elicited intense feelings of fear, anger, and anxiety, leading Ms Z to become hypervigilant to perceived maltreatment and rejection. Consequently, Ms Z started self-harming to manage intolerable feelings of sadness and distress.

In addition, those with developmental disorders often have difficulties with theory of mind (i.e., beliefs, intentions, desires, emotions, knowledge etc.), thereby compromising their understanding of another's mind and their ability to understand that these may be different to their own. Within this framework, Ms Z may be more vulnerable to aggressive and violent outbursts when interpreting

ambiguous social cues and moderating her own behaviour, thereby reinforcing her attachment difficulties.

Moreover, adolescence is a period of profound biological, cognitive and emotional maturation, and a period whereby young people begin to define themselves as separate and independent from their primary caregivers. During this stage, insecure attachment patterns can become reversed or entrenched; however, for them to be reversed, there needs to be a 'secure base' and something positive to attach to (Craissati, 2011). During adolescence, Ms Z frequently moved between care homes due to her challenging behaviour, and therefore was unable to maintain a secure attachment to her caregivers or peers. There appears to have been an absence of something positive to attach to, and therefore Ms Z's insecure attachment pattern likely became entrenched.

**Precipitating Factors**

Precipitating factors for Ms Z's use of actual, threatened, and imagined violence towards self and others include feelings of abandonment, rejection, and loss, particularly when individuals she has formed a strong connection to (e.g., peers/staff) move on. She frequently finds it difficult to manage strong emotions, and her own self-criticalness, which often becomes overwhelming.

In addition, Ms Z also presents evidence for a hostile attribution bias (Epps & Kendall, 1995; Wilkowski & Robinson, 2010), i.e., a propensity to interpret the actions of others as being hostile even when the behaviour is ambiguous or benign. This is likely further exacerbated by her underdeveloped theory of mind and reinforced by early trauma and victimisation.

**Perpetuating Factors**

Ms Z's use of violence towards self and others can be conceptualised as a maladaptive emotion regulation strategy, which is maintained by ruminating about experiences of abuse and/or perceived abandonment (Gratz & Roemer, 2004). Her presentation is further complicated by her diagnosis of Emotionally Unstable Personality Disorder and low frustration tolerance. Boredom and social isolation, caused by ongoing institutional care, maintain this as a coping strategy. This reinforces a negative sense of self. Rumination increases Ms Z's fears that "other people will leave me". To escape these "intolerable" emotions,

Ms Z continues to maintain maladaptive coping strategies to sustain safety and manage difficult emotions (self-harm, violence, avoidance) in the absence of adaptive coping strategies. Her self-harm also appears maintained by its sensory reinforcement and can be understood in the context of attempting to gain control, conflict resolution, and to cope with feelings of low self-worth. A lack of positive and supportive social networks also maintains this. This contributes to her rumination and negative self-concept. This, alongside empathy deficits, and difficulties with accessing education and employment, appears to feed into feelings of low self-worth and contributes towards her violent and aggressive outbursts.

### Protective Factors

Ms Z evidences protective factors associated with reduced violence risk (de Vries Robbé et al., 2012). She is willing to seek emotional and practical support from the team when she is struggling practically and emotionally. She has engaged well with aspects of her care, including medication compliance, occupational therapy activities and art therapy, to build more structure to her leisure time. She holds positive views of psychology, and this is reflected in her motivation and commitment to attending both individual and group psychology sessions. Furthermore, Ms Z demonstrates good insight into her difficulties, acknowledging that her self-harm and impulsivity are problematic for her and is keen to engage in ongoing treatment to address these issues. This suggests a motivation to engage in activities to learn more skills to manage her emotional experiences. Evidence of motivation has been identified as a predictor of therapeutic engagement in forensic settings (Hiller et al., 2002). Moreover, Ms Z further reports a desire to secure leave and was keen to work towards discharge, demonstrating a willingness to progress.

## Intervention

### Rationale for Intervention and Links to Formulation

Based on assessment and formulation, the MDT identified Ms Z's self-harm, critical self-thoughts, and difficulties managing and regulating her emotion, as

being the most significant factors related to her risk of violence and aggression towards self and others. Cognitive assessment findings further revealed Ms Z's difficulties with verbal inhibition, working memory, and emotional regulation, suggesting that Ms Z may struggle to express her feelings clearly and control impulsive reactions, especially when upset. Given her challenges in processing conversations when emotionally aroused, the team considered interventions that simplify communication and provide clear, non-verbal ways to express mood and needs to be the most supportive approach.

The development of bespoke communication cards was discussed within the MDT and was deemed a practical tool to enable Ms Z to quickly and easily convey her feelings visually, especially during periods of difficulty with verbal processing. It was further felt that communication mood cards would also serve to support Ms Z's working memory and verbal inhibition challenges by reducing verbal demands placed on her, as well as aiding the management of impulsive responses during times of emotional distress.

Additionally, a positive behavioural support plan specific to Ms Z's triggers, including self-critical thoughts and emotional overwhelm, was identified during MDT team discussions as a visual communication tool to reduce incidents of challenging behaviour by promoting alternative ways to communicate her needs. A positive behavioural support plan was also considered to support Ms Z's emotion regulation by providing adaptive coping skills, structure, and clear and consistent responses to her presentation of behaviours that challenge.

Together, both communication mood cards, and a positive behavioural support plan, were identified as clinically suitable interventions to directly address the cognitive and emotional difficulties identified in Ms. Z's assessment and formulation. The aims of these were to improve Ms Z's ability to manage her emotions and communicate her needs more effectively, utilising an individualised, tailored, needs-led, and holistic approach.

**Theoretical Foundations and Empirical Evidence - Communication Mood Cards**

The use of communication mood cards aligns closely with theories of cognitive and emotional processing outlined in Chapter One of this thesis, as well as

approaches identified as being tailored to support individuals with executive function difficulties. According to Cognitive Load Theory (Sweller, 1988), working memory has a limited capacity to hold information at any given time. However, visual aids, such as mood cards, can reduce the demand of verbal working memory, particularly when emotional arousal impairs verbal processing, thereby allowing for clearer expression of emotions and needs.

Furthermore, Executive Functioning Theory (Diamond, 2013) emphasises the important role of executive functions, including inhibitory control and cognitive flexibility, in managing emotions and behaviours. Communication mood cards serve as a concrete visual tool that can help to counterbalance deficits in mental flexibility by reducing working memory load and providing a structured way to communicate emotions without the immediate need for verbalisation.

Supporting this framework, Thornton et al. (2017) designed and piloted a mindfulness-based group intervention for young people with learning disabilities. The study utilised mood cards depicting written feeling states alongside pictorial facial expressions. Participants were encouraged to present a card at the beginning of the session, and again following each mindfulness practice, to explore any changes in feelings and encourage discussion of emotional states. Qualitative findings revealed that group members found the cards beneficial in supporting them to think, express, and reflect more openly about their feelings.

Similarly, Oktantri et al. (2025) investigated the use of expression cards in supporting emotional recognition in learning disabled adolescents. Over a 6-week intervention period, participants engaged in activities utilising the expression cards, including the identification of emotions, matching exercises, role-play, and peer discussion. The results revealed that the use of expression cards significantly improved emotion recognition skills in late adolescents with mild to moderate intellectual disabilities. The researchers concluded that providing visual scaffolding aids comprehension and communication of emotional states.

Collectively, these findings therefore suggest that bespoke, person-centred visual aids like communication mood cards hold considerable promise in enhancing emotional awareness and expression in learning disability populations.

## Theoretical Foundations and Empirical Evidence - Positive Behaviour Support

Positive behaviour support (PBS; Carr et al., 1999) is a person-centred, values-led, holistic framework designed to understand and address behaviours that challenge (Department of Health, 2014). Rooted primarily in behavioural principles, particularly 'operant conditioning', PBS conceptualises aggression as a reinforced, learned maladaptive response. Through this lens, behaviours can be modified via systematic application of antecedents and consequences.

PBS incorporates principles of Applied Behavioural Analysis (ABA, Baer et al., 1968), which utilises learning theory to understand and modify behaviour. By identifying what maintains behaviour, interventions can be developed to replace maladaptive behaviours with more adaptive alternatives. This process involves the identification of antecedents to predict when a behaviour is likely to occur, and the consequences that reinforce and maintain the behaviour (O'Neil et al., 2014).

Alongside behaviourist principles, PBS integrates Ecological Systems Theories (Bronfenbrenner, 1974). This theory considers the wider systemic context in which behaviours occur, including social relationships, environmental supports, and cultural influences at multiple levels - individual, environment, and system. This approach emphasises collaborative multidisciplinary assessment and intervention planning that operates at a system-level, rather than being solely individual-focused.

Additionally, consistent with social learning theories (Bandura, 1971), PBS involves modelling appropriate behaviours supported by practice and reinforcement, acknowledging the role of observational learning.

Positive behavioural support has been identified as an effective approach for working with people with learning disabilities and behaviours that challenge (Department of Health 2014; Royal College of Psychiatrists, British Psychological Society & Royal College of Speech and Language Therapists, 2007). Current UK policy advocates for the use of positive behavioural support within secure forensic settings as part of the model of care for managing behaviours that challenge (Department of Health, 2014).

However, evaluation of PBS within forensic settings remains limited (Tolisano et al., 2017). Davies et al. (2019) reported that the introduction of PBS in a medium secure forensic mental health service significantly reduced the frequency, management difficulty, and severity of aggression and other behaviours that challenge. These reductions were maintained at six months and one-year post-implementation. Similarly, Bullard and Ellis (2021) described a single case study design involving a man residing in a low secure forensic inpatient setting. A PBS plan was developed involving a formulation, functional assessment of behaviour, and implementation of proactive and reactive strategies. The intervention led to a reduction in challenging behaviours and the use of PRN medication, alongside improvements in quality of life.

Despite these positive outcomes, several barriers to effectively implementing PBS within forensic settings are recognised. These include difficulties sustaining collaborative work, inconsistent practice, and limited access to resources (Collins et al., 2021). The importance of robust staff training and ongoing support for teams is also emphasised (Bullard & Ellis, 2021).

Overall, both communication mood cards and positive behavioural support are grounded in established theoretical frameworks and supported by empirical evidence, making them well-suited interventions. The development of bespoke mood cards accommodates Ms Z's cognitive and executive functioning difficulties by reducing verbal load and enabling communication of emotions and needs. To complement this, PBS offers a powerful, person-centred, values-driven, and holistic approach to understanding and responding to behaviour that challenges. Together, these interventions provide a comprehensive framework to support Ms Z's emotion regulation difficulties, enabling her to communicate her needs more clearly and effectively, enhancing coping strategies and reducing overall risk, whilst taking into account her cognitive difficulties.

## Design and Development

### Communication Mood Cards

Ms Z participated in a series of individual psychology sessions to develop bespoke mood cards aimed at supporting both her and the staff in establishing a

shared language for recognising and expressing emotions. These cards were particularly useful during periods of emotional arousal and urges to self-harm. To make abstract concepts more concrete and accessible, emotion expression pictures depicting basic emotions, based on Ekman's (1989) work, were utilised. These cards were designed to be applicable across settings (Gross, 2004), both within and outside the hospital. Initial examples included cards representing fundamental emotions such as happiness, sadness, and anger. Ms Z was also encouraged to notice feeling states, events, or experiences not represented by basic emotions, but which were important and significant to her. Consequently, additional cards were developed to represent self-harm, suicide, hearing voices, hurting others, feeling sorry, 'wobbly' (a term coined by Ms Z to signify emotional distress), and experiencing nightmares. On the backs of these cards, Ms Z was guided to reflect on potential causes of her feelings and encouraged to engage in her identified self-soothing strategies (e.g., practising a mindfulness technique, listening to music, walking in the garden etc.). Ms Z's favourite positive affirmations were also included to support emotional resilience.

Staff were encouraged to complement the use of the cards by paying careful attention to words, tone of voice, facial expressions, and body language, to help ground and contain Ms Z during times of emotional distress. This approach aligns with literature advocating for the use of more thorough therapeutic conversations in providing personalised and inclusive care for those with intellectual disabilities in forensic settings (Quinn et al., 2022).

Ms Z was encouraged to present a mood card at the beginning of every individual psychology session and was again asked at the end to select a card. This process aimed to support Ms Z in recognising that emotional states are temporary and can change. Choosing a picture card further provided a concrete visual tool to support Ms Z to reflect on her feeling states and to develop her emotional vocabulary gradually. This is particularly important in the context of psychological intervention, which can often elicit intense emotional responses in patients. These responses may be further complicated by the abstract nature of therapeutic discourse which those with cognitive difficulties like Ms Z may find difficult to understand.

Please note: A sample of Ms Z's bespoke mood cards are contained in Appendix v.

**Positive Behavioural Support**

The process of developing Ms Z's PBS plan involved the following:

- MDT trauma-informed case discussion and formulation
- Functional assessment of challenging behaviours
- Identification of proactive and reactive strategies
- Development of post-incident support plan
- MDT review and refinement

***Trauma-Informed Case Discussion and Formulation***

The MDT met for a trauma-informed case discussion focusing on Ms Z's early life experiences and trauma history. This approach ensured a comprehensive and holistic understanding of Ms Z, aligning with trauma-informed care principles. This is essential considering research indicating that many individuals with learning disabilities who offend have experienced significant adverse childhood experiences (Lindsay et al., 2010).

During discussions, the MDT explored how Ms Z's past traumatic experiences (physical, emotional and sexual abuse; problematic family and intimate relationships) likely impacted her ability to build secure attachments and trust others. Her recent transfer to the current ward likely disrupted the positive relationships she had formed at her previous hospital, potentially triggering feelings of vulnerability, inadequacy, loss, and abandonment. Moreover, her moves between different hospitals may have also reminded Ms Z of her childhood, when she frequently moved between different foster and children's homes, thereby reinforcing heightened anxiety and a sense of instability. It is likely that she experienced a profound loss of control following her admission. Consequently, she may have used self-harm and aggression as maladaptive strategies to regain a sense of control when feeling overwhelmed and powerless.

***Functional Assessment of Behaviour***

In line with research suggesting that PBS interventions grounded in functional assessment are the most effective (Carr et al., 1999), the MDT collaboratively worked with Ms Z to identify triggers for both her self-harming and aggressive behaviours and hypothesised possible functions (see Table 5.1 below). To support Ms Z's understanding and engagement, colourful images and diagrams were used in developing the plan. These images were chosen by Ms Z so that they were personally meaningful.

**Table 5.1**

*Functional Assessment of Ms Z's Behaviours*

| Antecedents | Behaviours | Function of Behaviour |
|---|---|---|
| **Significant Anniversaries (e.g., father's death) or dates (e.g., Birthday, Christmas).** | *Self-Harm*: Tying ligatures, attempting to swallow dangerous objects or cause choking, head-banging, and biting or scratching herself<br><br>*Verbal Aggression:* Aggressive/abusive language, swearing, threats to harm self/others<br><br>*Physical Aggression*: Bites, Scratches, Punches, Kicks | Behaviour is considered to occur as a way of managing distress, expressing anxiety and frustration, and to elicit care from others to avoid feelings of loneliness and rejection. |
| **Staff interrupting and trying to keep her safe from self-harm** | *Physical Aggression*: Bites, Scratches, Punches, Kicks | Behaviour is considered to occur in response to her experiencing severe emotional distress, and |

| | | |
|---|---|---|
| | | her inability to cope with how she is feeling. Therefore, violence has a function of expressing her feelings when she is overwhelmed and/or distressed, as well as being a method that she uses as a problem-solving strategy. |
| **Transitions in Care** | *Self-Harm*:<br>Tying ligatures, attempting to swallow dangerous objects or cause choking, head-banging, and biting or scratching herself<br><br>*Verbal Aggression:*<br>Aggressive/abusive language, swearing, threats to harm self/others<br><br>*Physical Aggression*:<br>Bites, Scratches, Punches, Kicks | Behaviour is considered to occur in response to her<br>feeling abandoned and unsafe and to elicit care and contact from staff to manage fears of rejection and inadequacy and feel valued. |
| **Lack of structured activity (resulting in boredom)** | *Self-Harm:*<br>Tying ligatures, attempting to swallow dangerous objects or cause choking, head- | Behaviour is considered to occur to manage and communicate distress when feeling anxious, frustrated, or angry, and |

| | | |
|---|---|---|
| | banging, and biting or scratching herself. | to elicit care and attention from staff to manage fears of loneliness. |
| **Absence of favourite staff** | *Self-Harm:* Tying ligatures, attempting to swallow dangerous objects or cause choking, head-banging, and biting or scratching herself | Behaviour is considered to occur as a way of eliciting care and attention from staff to manage fears of rejection and abandonment and to feel valued and loved. This could also be in response to fear that those she trusts are not there to protect her from abuse. |
| **Feeling confused following professional meetings (i.e., Ward Round's, CPA's).** | *Self-Harm:* Tying ligatures, attempting to swallow dangerous objects or cause choking, head-banging, and biting or scratching herself | Behaviour is considered to occur as a way of managing and communicating distress when feeling confused or uncertain, or in disagreement with the team's views. |
| **Lack of sleep/nightmares** | *Self-Harm*: Tying ligatures, attempting to swallow dangerous objects or cause choking, head-banging, and biting or scratching herself | Behaviour is considered to occur in response to her experiencing severe emotional distress, and her inability to cope with how she is feeling. |

| | | |
|---|---|---|
| | *Verbal Aggression:* Aggressive/abusive language, swearing, threats to harm self/others | |
| **Dissatisfaction with treatment plan/lack of progression** | *Self-Harm*: Tying ligatures, attempting to swallow dangerous objects or cause choking, head-banging, and biting or scratching herself | Behaviour is considered to occur to manage and communicate distress when feeling anxious, frustrated, or angry and to achieve a change of decision to ensure her needs are met. |
| **Escalation from verbal aggression** | *Physical Aggression:* Bites, Scratches, Punches, Kicks | Behaviour is considered to occur to establish control and to express anger and frustration, to punish others, or to test boundaries. |

### *Identification of Proactive and Reactive Strategies and Post-Incident Support*

The PBS process involves three stages of intervention including: primary proactive strategies (avoidance of antecedent events to promote functionally alternative skills to challenging behaviour); secondary strategies (responding to early warning signs that challenging behaviours are imminent); and tertiary/reactive strategies (strategies to respond in crisis situations).

Identification of proactive, reactive, and post-incident support strategies was developed collaboratively between the MDT and Ms Z to maintain a holistic and person-centred approach. Collective service user involvement in care planning

and risk management has been found to be effective in reducing aggression (Thomas et al., 2005) and self-harm (Fish et al., 2012). This was also hoped to support Ms Z's insight and awareness of triggers and reinforcers of her own behaviour. Her lack of insight was considered by the team as a further identified treatment target linked to her increased risk of violence.

Alongside each of these strategies, Ms Z developed an image to symbolise the behaviour. This is in keeping with the literature which has found that visual learning aids (e.g., pictures, graphs, charts, videos, photos etc.) are important tools in supporting learning processes in those with learning and communication disabilities (Rao & Gagie, 2006).

The MDT considered that many of Ms Z's challenging behaviours occurred as a way of managing distress, expressing anxiety and frustration, and to elicit care from others to avoid feelings of loneliness and rejection. Primary proactive strategies were designed to meet Ms Z's needs without having to rely on challenging behaviour and to improve overall quality of life. These focused on personal growth, regular interaction with staff and peers, and learning new skills and consistency. Proactive strategies therefore involved reassuring Ms Z that she was cared for and supported by the team.

Ms Z's challenging behaviours also appeared to occur following feelings of confusion or uncertainty after professional meetings, when plans were cancelled or changed at the last minute, and when she was feeling hopeless about her lack of progression towards discharge. Therefore, the MDT felt it appropriate to provide regular consistency and structure, alongside written appointment reminders and summaries of professional meetings in a clear, simple bullet-point format. The team also identified positive reinforcements for good behaviour, including an increase in community leave, to support Ms Z's progress towards discharge.

Secondary preventative strategies were used to intervene before escalation of challenging behaviour. This involved de-escalation using distraction to contain and ground Ms Z, encouragement to utilise self-soothing strategies, validating Ms Z's feelings, and reinforcing boundaries.

Tertiary/reactive Strategies were used to describe how to respond to challenging behaviour, and to manage behaviour as safely and quickly as possible, keeping Ms Z and other people safe. This included avoiding overcrowding and shouting at Ms Z, in addition to being mindful of the use of triggering language, including mentioning seclusion and/or removal of belongings.

Finally, post-incident support strategies were used when the incident of challenging behaviour was over, and Ms Z was starting to recover and was presenting as calm and settled again. This included offering Ms Z a space to speak about how she was feeling, allowing her to apologise for her behaviour, in addition to providing reassurance and acknowledging and validating what she did well.

Please note: A copy of Ms Z's PBS plan is contained in Appendix U.

## Results

### Clinical Outcomes in Routine Evaluation 10 Measure (CORE-10; Barkham et al., 2013).

The CORE-10 was administered pre- and post-implementation of the PBS plan and mood cards, as a measure of psychological distress. Given that the primary aim of PBS is to improve quality of life (Dunlap & Carr, 2007), psychological distress was deemed an appropriate proxy measure.

The CORE-10 is a 10-item self-report questionnaire which assesses psychological distress. It is designed to administer pre and post therapy to measure reduction in distress over the treatment period. Individuals rate the items based on how they have felt over the last week, using a 5-point Likert-type scale, with 0 indicating 'not at all' and 4 indicating 'most or all of the time'. Scores are summed to provide a total clinical score ranging from 0-40, with higher scores indicating greater levels of distress. Barkham et al. (2013) validated the CORE-10 in primary care patients, as well as the general population, reporting an internal reliability (Cronbach's alpha) of 0.9. This measure was subsequently chosen due to its good psychometric properties and because it is practical to use with people presenting with common mental health problems in primary care

settings (Barkham et al., 2013), as well as psychosis samples (Chadwick et al., 2000; Durrant et al., 2007).

Attempts were made to complete the CORE-10 during assessment prior to intervention. However, upon hearing the question 'I have thought of hurting myself' Ms Z engaged in an incident of self-harm and the session was suspended. This was consistent with Ms Z's current presentation at the time, feedback from the MDT, and self-reports that she had been unsettled in her mental state with fluctuating mood and challenging behaviours, as well as attempts to self-harm.

The CORE-10 was administered approximately one month following the introduction of Ms Z's PBS plan and mood cards. Ms Z's scores indicated that she was experiencing a 'low' level of distress post-intervention. However, given that no overall pre-intervention score could be obtained, a clinically significant change in relation to the standard deviation from the norm (Jacobson & Truax, 1991) could not be established.

To explore whether effects were maintained at follow-up, the CORE-10 was again administered two months following intervention. Scores on the CORE-10 decreased at a two-month follow-up, compared to one-month post-intervention, suggesting a further reduction in distress. This remains within the 'low' range. Ms Z's negative change score of -1 demonstrates improvement in mental health difficulties and distress, although this did not reach reliable or clinically significant change (movement of 5 points or more). Scores are contained in Table 5.2 below.

**Table 5.2**

*Post-group CORE-10 scores*

| | **Raw Score** | **Mean Score** | **Interpretation** |
|---|---|---|---|
| **1-month post-intervention** | 9 | 0.9 | Low |

| | | | | |
|---|---|---|---|---|
| **2-month post-intervention** | 8 | 0.8 | Low | |

**Incidences of Challenging Behaviour**

Incidences of challenging behaviour were measured by comparing risk events pre and post intervention. In the five months prior to the implementation of Ms Z's PBS plan and mood cards, there were 13 incidences of challenging behaviour. These included verbal aggression, physical aggression, property damage, self-harm, suicidal threats, and a combination of behaviours that challenge. After the implementation of the mood cards, there was one incident of self-harming behaviour. Following the introduction of a PBS plan three months later, alongside the use of mood cards, incidences of challenging behaviour reduced to zero. This was maintained for eight months post-intervention. Risk events per month through baseline, intervention, and follow-up are contained in Figure 5.1 below.

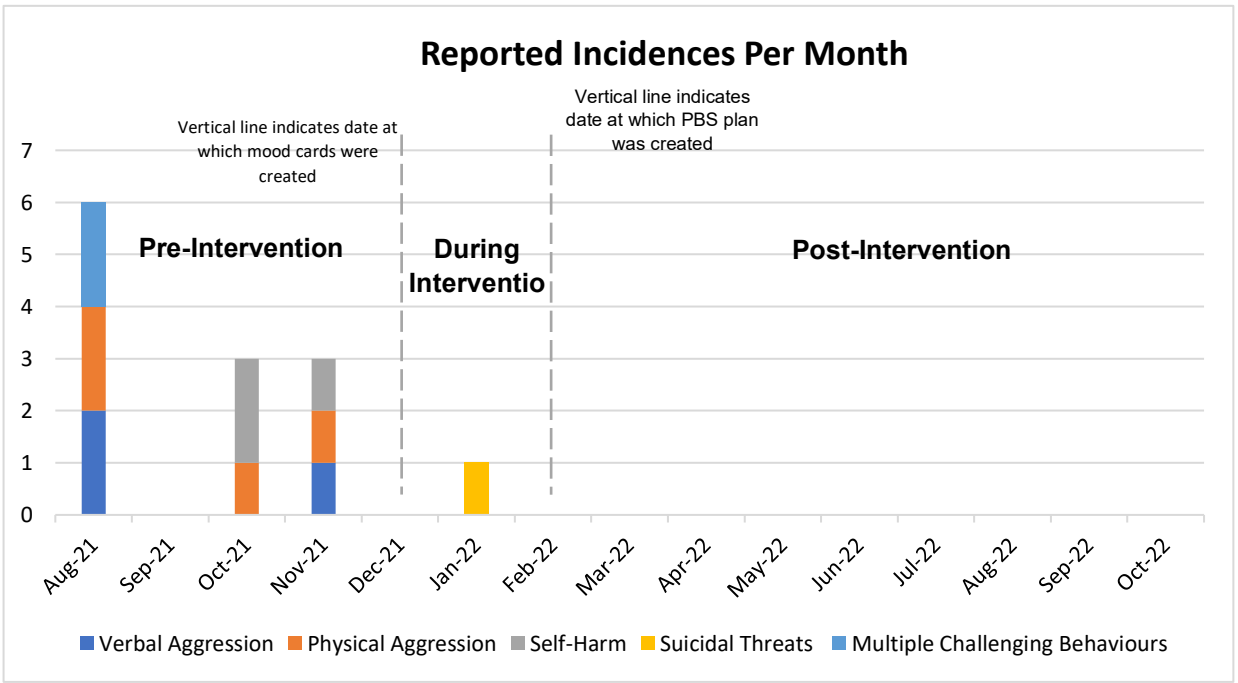


**Figure 5.1**

*Risk Events Per Month Through Baseline, Intervention, and Follow-up.*

### Behavioural Observations/Client Feedback

Following the introduction of the PBS plan and mood cards, Ms Z demonstrated increasing insight and awareness of triggers and reinforcers of her own behaviour, including rumination on past negative experiences (particularly surrounding the death of her father and abuse in hospital), as well as feeling hopeless about her lack of progression and discharge into the community. Moreover, there was a marked increase in Ms Z's self-reported use of mindfulness exercises and her willingness to openly speak to staff when feeling anxious and low in mood. Her increased interactions with peers on the ward were also noted.

## Discussion

Ms Z was referred to psychology services due to the risk she posed to herself and others through her actions of aggression and self-harm. Comparison of risk events pre and post intervention, and findings on outcome measures, suggest that the introduction of bespoke mood cards and a PBS plan were effective in reducing the frequency and severity of aggression and self-harming behaviour. Significant reductions in challenging behaviour were found after the mood cards were introduced and following the implementation of a PBS plan three months later. There was no return to baseline levels up to eight months following implementation. Positive improvements in overall psychological well-being, as measured by the CORE-10, were maintained between one- and two-month follow-up periods. Behaviourally, Ms Z appeared motivated to engage in sessions and demonstrated good insight into how her responses to her emotions were problematic and affected her daily functioning, as well as awareness of triggers and reinforcers of her own behaviour. Her ability to utilise positive coping strategies, most notably mindfulness, and speaking to staff and peers, also increased.

The integration of mood cards within the Positive Behaviour Support (PBS) for Ms Z represents a comprehensive, person-centred approach that addresses both communication and behavioural needs holistically. While positive behaviour support offers an evidence-based framework for understanding and managing behaviour that challenges, its effectiveness is significantly influenced by the extent to which individuals' communication needs are supported. Within this case study, the mood cards served as a vital tool in offering Ms Z a concrete and accessible means of expressing her emotions that may have otherwise been too difficult to communicate verbally. The PBS plan built on this further by providing a structured framework to identify emotional shifts early and deliver timely, tailored interventions to prevent escalation.

Enhancing communication using mood cards enabled a more robust and collaborative PBS plan to be developed. Ms Z was supported through the use of mood cards to actively engage and contribute towards her personalised plan. This was hoped to enable a greater sense of control and empowerment in her recovery, and a feeling of being listened to and understood, which was identified as important within Ms Z formulation and functional analysis. Furthermore, supporting Ms Z's communication needs using cards also helped to minimise the likelihood of misinterpretation of her behaviours and allowed for greater understanding of her triggers and emotional states. This helped to reduce the risk of inappropriate or less tailored interventions, thereby enhancing the overall effectiveness of PBS. Furthermore, the use of mood cards also enabled early detection and allowed for the ability to identify early warning signs with less risk of escalation or reliance on secondary preventative strategies. Future research should seek to explore the role of communication aids within PBS more systematically, as communication support may be a critical enabler for PBS to be effective. However, it is also important to acknowledge that communication support and PBS may be inherently intertwined, which can make it difficult to fully isolate effects.

The findings of this case study add to the limited literature suggesting that PBS, and communication mood cards, can be implemented within a medium secure setting with an individual with a learning disability. These findings are comparable to the work of Davis et al. (2019) who similarly implemented PBS in

a medium secure forensic mental health service. The researchers found significant reductions in the frequency and severity of challenging behaviour immediately after implementation of PBS, and these effects were still maintained at a six-month follow-up. Interestingly, improvements for the intervention group described in Davis et al.'s study were not seen in every domain, for instance some deterioration in the frequency of other behaviours that challenge and management difficulty were evident. However, the opposite was found in this case study, in that Ms Z demonstrated a significant reduction in the frequency of all challenging behaviours (verbal aggression, physical aggression, self-harm, suicidal threats, and multiple challenging behaviours). A possible explanation for these contrasting findings may lie in the differences in the measurement tools used to assess the frequency of challenging behaviour (i.e., risk events vs more direct measures such as The Checklist of Challenging Behaviour, CBC; Harris et al., 1994). Having said this, the use of behavioural risk events as used within this case study does overcome difficulties in individuals' ability to self-monitor their mood and emotions, which is particularly important in learning disability populations. Nonetheless, further research is warranted using a range of approaches and methods, perhaps via combining both behavioural and self-monitoring measures. Moreover, this case study utilised visual communication aids in the form of bespoke mood cards, alongside implementation of a PBS plan. Therefore, comparisons are difficult to analyse when treatment is varied, and a range of additional treatments are also offered (e.g., medication, group therapy, occupational therapy etc.). The individualised person-centred nature of PBS also makes cross-comparisons difficult, and perhaps quality assessments could be considered within future research, given the degree of variability evident amongst different PBS plans.

Positively, to inform intervention, staff attended a trauma-informed case discussion and formulation session on Ms Z. This is in keeping with the findings of Tolisano et al. (2017) who advocate for the need for comprehensive functional assessment of problematic behaviours, formulation, and understanding of traumatic experiences. Indeed, there is a drive within the literature for nurses to take the lead in the formulation of PBS plans and their delivery, given they often hold the position of primary carers for individuals (Savarimuthu, 2023). Nonetheless, greater staff awareness and training are urgently warranted to

support treatment efficacy. This is considering feedback from nursing staff that they at times 'forgot' to encourage Ms Z to use her mood cards during interactions. Similarly, Ms Z at times reported that at times she was given little support by nurses to use these, which resulted in her feeling embarrassed and reluctant to do so. On reflection, perhaps these cards could have been modelled within Ms Z's ward round to support techniques to become embedded and disseminated amongst the wider team, as well as in her interactions with her family. This is particularly important given that research suggests that carer involvement influences treatment engagement and outcomes for those with a learning disability (Idusohan-Moizer et al., 2015), alongside the significance of practicing skills between sessions (Lindsay et al., 2013).

To the author's knowledge, this is the first study to explore the use of PBS and mood cards in a female forensic patient, given that past PBS research has focused on male patients (e.g., Bullard et al., 2021; Davis et al., 2019). Nonetheless, Davis et al. (2019) calls for further exploration of the efficacy of PBS within female forensic mental health populations. This is particularly pertinent, considering research suggesting that the gender gap for incidences of violence is thought to be narrowed within institutional settings (e.g., Greig, 2014; Strand & Belfrage, 2001) and in the community (Holmes et al., 2010). Similarly, females have also been found to engage in greater inpatient violence (de Vogel et al., 2016; Nicholls et al., 2009), and to engage in internalising behaviours, including self-harm (Muller & Kempes, 2016). It would therefore be timely for future research to explore this further.

A further interesting finding is the self-reported feedback from Ms Z which indicated an increase in mindfulness practice outside of sessions, and in the absence of staff encouragement. This extends the findings of Thornton et al. (2017) who found mindfulness-based interventions were beneficial for children and young people with learning disabilities who struggled with high anxiety, suggesting similar interventions may prove helpful for learning disabled adults. Future research should seek to explore this further.

Looking ahead, whilst this case study describes the implementation of communication mood cards on an individual basis, the effectiveness of mood cards is also worth considering within group therapy settings in future research.

This is important, given that navigating the pace and complexity of verbal communication, alongside intense emotional responses, are likely to be exacerbated within a group therapeutic environment. Research exploring the application of mood cards in other domains is also warranted, for instance individuals with learning disability could be encouraged to carry with them and have access to cards in certain stressful situations, for instance attending important professional meetings, interviewing for a job, being questioned by the police, attending court etc.

**Limitations**

There are some limitations to this study. No baseline measure for psychological distress could be obtained during assessment. This weakens the conclusions that can be drawn. Moreover, quality of life was measured via administering the Clinical Outcomes in Routine Evaluation (CORE-10; Barkham et al., 2013). However, more targeted outcomes, such as the Quality-of-Life Scale (Flanagan, 1978), which has been found to be a valid instrument for measuring quality of life across patient groups and cultures (Burckhardt & Anderson, 2003), could have perhaps been utilised. In hindsight, additional constructs could have also been measured. Whilst the Rosenberg Self-Esteem Scale was administered during assessment, suggesting Ms Z held low self-esteem, it would have been helpful to re-administer this again following intervention to explore any changes. Similarly, administering psychometric measures on a more frequent basis (e.g., weekly/monthly), may also be useful in future research to detect subtle shifts in functioning (Andreu et al., 2008). Moreover, a limitation of the CORE is its lack of validation within learning disability populations. This is problematic given notable differences in the life experiences of this group compared to the general population. As such, the Clinical Outcome in Routine Evaluation-Learning Disabilities version (CORE-LD, Brooks et al., 2013), a valid and established tool for measuring anxiety, depression, and self-esteem in LD populations, may have been a more appropriate and sensitive measure to use. This is particularly important to consider within future research, given that the full measure appeared to trigger Ms Z's self-harming behaviour. In support of this, the CORE-10 has been shown to hold moderate test-retest reliability and concurrent validity (Briscoe et al., 2019).

In addition, it is important to acknowledge the influence of wider systemic and organisational factors that may have contributed to a decrease in Ms Z's challenging behaviours outside of the intervention. Ms Z was engaging with several other therapeutic interventions concurrently including occupational therapy, as well as changes to her medication, increased access to leave, and positive relationships with peers. This would have been unethical to restrict; therefore, the positive effects described here cannot be reliably inferred from the use of PBS and mood cards alone, and possible confounding variables could have contributed towards the positive findings. Nonetheless, it is possible that the development of a secure relationship during the assessment and intervention phases may have contributed towards Ms Z's increased engagement in other areas, in a similar way that infants learn that the caregiver is dependable, which creates a secure base for the child to then explore the world (Ainsworth, 1978).

## Conclusions

To the authors' knowledge, this is the first case study examining the effectiveness of the Positive Behaviour Support (PBS) model in conjunction with bespoke communication mood cards for a female forensic inpatient with a learning disability. The findings suggest that while PBS offers a robust theoretical framework and outlines key strategies for managing behaviour that challenges, the integration of tailored communication tools significantly enhances both its development and real-world applicability. This highlights how visual communication tools can enhance the effectiveness of behavioural interventions, demonstrating the core role communication plays particularly in learning disability populations. These results support current policy guidance encouraging greater person-centred, proactive, and preventative approaches to managing behaviour that challenges for vulnerable populations, and highlights the importance of personalised, formulation-driven, approaches to care. Nonetheless, it is recommended that the efficacy of positive behavioural support and the use of visual communication, including mood cards, be further explored through research utilising more targeted outcome measures, larger-scale samples, and across a greater range of contexts and settings. Furthermore, the role of communication aids within PBS warrants more systematic exploration, as

communication support may be a critical enabler for the intervention's overall effectiveness. It is also important to recognise that the findings are drawn from a single case study design, which limits generalisability.

# Chapter Six

# Discussion

## Thesis Aims

This thesis offered a unique investigation into the use of special measures and bespoke communication tools to support autistic and learning-disabled individuals in communicating and engaging with the criminal justice system. A systematic review, a methodological critique, original empirical research, and a case study were conducted to strengthen the evidence base. Findings highlight the need for wider implementation of person-centred, holistic, and needs-led communication support, including intermediaries and visual aids, to promote fairness and reduce discrimination. This is crucial to ensure equal access to justice for autistic and learning-disabled individuals throughout the criminal justice pathway.

## Summary of Findings

### *Chapter Two*

Chapter Two presented a systematic review synthesising the current evidence on vulnerable witnesses' experiences of using special measures at court. After screening 153 titles and abstracts, 16 were fully considered, of which 14 papers met the inclusion criteria and were quality assessed. However, the findings should be interpreted with some caution due to heterogeneity in study designs and the inclusion of mixed witness samples, which may limit the generalisability of conclusions. The review highlighted that special measures have a positive impact and are widely appreciated by witnesses, provided they are appropriately implemented. Difficulties in understanding complex and unfamiliar language, alongside comprehension, and the style of questioning were noted. The need for greater intervention to ensure individuals understand questioning during cross-examination, with positive views towards the use of intermediaries and communication aids, was recognised. In addition, it is tentatively suggested that pre-trial visits may hold greater value for vulnerable third-party witnesses, however in the case of vulnerable witnesses who are also victims, there appears to be a greater preference for measures designed to shield the witness from the

accused, such as screens, video-links, or pre-recorded evidence. Nonetheless, this review demonstrates the importance of utilising a needs-led, person-centred approach to supporting individuals at court, recognising cognitive, emotional, and communicative needs, alongside the legal role (i.e., whether the individual is a victim or witness).

***Chapter Three***

To account for methodological limitations in research exploring jury decision making in vulnerable individuals, Chapter Three presented a critique of jury simulation studies in providing valid and reliable results. This methodology was appraised across internal, external, ecological, and construct validity, as well as reliability. Various advantages of jury simulation methodology are recognised, including the ability to explore both outcomes and processes of decision making, as well as accommodating systematic variation of multiple research variables. Disadvantages are also acknowledged, including limits to the extent to which findings can be generalised to the behaviour and decision-making processes of real-life jurors. It is concluded that a more nuanced relationship between ecological, external, and construct validity could be achievable through utilising more comprehensive and engaging stimuli, greater diversity in participant samples, increasing stimuli sampling and replicating previous stimuli, whilst also paying careful attention to preserving internal validity. In addition, considering the nature of the research question (legal vs psychological), and the intended audience for the dissemination of empirical findings is important. This could determine the extent to which internal validity is balanced, or superseded, by the verisimilitude of sample, stimuli, and outcomes.

***Chapter Four***

Chapter Four detailed a mixed methods empirical study exploring the impact of autism diagnosis disclosure, the presence of an intermediary, and the interaction of both variables, on jury-decision making outcomes in an autistic defendant. Primary hypotheses predicted that participants who were provided with information about an autism diagnosis, an intermediary, or both, would return lower levels of perceived defendant guilt, recommend shorter sentence lengths, and assign lower ratings of criminal intention, moral responsibility, and legal

responsibility, compared to participants who received no such support. Additionally, the study explored the influence of participants' openness, awareness, and level of contact with autism, on jury decision-making. Finally, the research also examined participants' qualitative responses regarding their attributions, to gain deeper insight into the decision-making processes within this context. The findings suggest that neither the provision of an autism diagnosis and supporting information, nor the presence of an intermediary, significantly affected whether participants judged the defendant guilty or not. Similarly, isolated judgements of criminal intention, moral responsibility, and legal responsibility were not strongly influenced by these factors. However, combined, they did affect the overall pattern of participants' attributions. Findings indicate that disclosure of an autism diagnosis and the presence of an intermediary may therefore shape evaluations of a defendant's mental state and responsibility, even if they do not directly reduce guilt or sentencing severity.

***Chapter Five***

Chapter Five further explored the importance of supporting communication in learning disabled forensic settings through the presentation of a clinical case study. This case study explored the effectiveness of positive behavioural support and communication mood cards in a female forensic inpatient with a learning disability who presented with significant self-harming and challenging behaviours. The research to date supports the use of the PBS framework as an effective method for working with people with learning disability and behaviours that challenge (Department of Health 2014; Royal College of Psychiatrists, British Psychological Society & Royal College of Speech and Language Therapists, 2007). Similarly, research reveals positive outcomes of the use of mood cards in encouraging open discussions on feelings in those with a learning disability (Thornton et al., 2017). However, no research to date has explored the effectiveness of both interventions implemented together. Overall, the results suggested that the introduction of bespoke mood cards and a PBS plan were effective in reducing the frequency and severity of Ms Z's aggression and self-harming behaviours, as measured by the examination of risk events. Encouragingly, there was no return to baseline levels up to eight months post-intervention. Positive improvements in overall psychological well-being, as

measured by the CORE-10, were maintained between one to two-month follow-up periods. In addition, observationally, and through discussions during ward rounds and multi-disciplinary meetings, Ms Z evidenced increasing insight and awareness into triggers and reinforcers of her self-harming and challenging behaviours. Her increased use of mindfulness exercises, and openness in her interactions with staff and peers on the ward, were also noted. The findings suggest that while PBS offers a robust theoretical framework and outlines key strategies for managing behaviour that challenges, the integration of tailored communication tools significantly enhances both its development and real-world applicability. The findings highlight how visual communication tools can enhance the effectiveness of behavioural interventions, demonstrating the core role communication plays particularly in learning disability populations.

## Implications for Practice

Taken together, the research presented within this thesis contributes towards increased understanding and awareness of adaptations available to support autistic and learning-disabled individuals in contact with the criminal justice system. Practical implications are explored in turn below.

Firstly, results from the systematic review presented in Chapter Two highlight difficulties vulnerable witnesses often face in understanding complex and unfamiliar language, alongside comprehension, and style of questioning during cross-examination (Beckene et al., 2020; Hunter et al., 2013; Plotnikoff & Woolfson, 2009). Positive views towards the use of intermediaries are recognised as a practical way of navigating these difficulties (e.g., McLeod et al., 2010; Hamlyn et al., 2004). Results from the empirical research study presented in Chapter Four similarly align with these findings, thus highlighting the positive benefits in encouraging and expanding the provision of the intermediary scheme. Intermediaries represent an important tool; they assess vulnerable people's communication needs and provide support within court to enable individuals to communicate effectively with criminal justice professionals. Intermediaries have also been found to support witnesses to cope with the stress of giving evidence (Plotnikoff & Woolfson, 2004).

Despite predictions, results from the research study found that the provision of an autism diagnosis, the presence of an intermediary, or a combination of both, did not significantly influenced jurors' decisions of guilt, sentence length or attributions of criminal intention, legal responsibility, or moral responsibility. This surprising finding does not align with Kelley's discounting principles (1971), suggesting that the provision of an autism label and information provides jurors with an alternative explanation for the criminal behaviour and atypical court behaviours, thereby resulting in more favourable outcomes. However, this is a wholly positive outcome. The lack of significant effect of the presence of an intermediary on guilt ratings protects the neutrality and impartial nature of the role of intermediaries. This is encouraging, suggesting that the role is achieving its intended purpose. These findings therefore challenge previous concerns that intermediaries may bias jury perceptions (e.g., see O'Mahoney, 2010).

Findings also make a powerful and compelling argument for the intermediary scheme, and other special measures, to be afforded to vulnerable defendants, given that their access to adaptations remains far more limited compared to that of vulnerable witnesses. Currently, vulnerable defendants are only supported by way of ad hoc statutory provisions (live link) and case law (screens and intermediaries). However, these unequal provisions continue to act as a barrier to effective participation and increase the risks of miscarriages of justice (Fairclough & Greenwood, 2023). Indeed, Jacobson and Talbot (2009) argue that defendants often present with comorbid vulnerabilities including mental illness and learning difficulties. Therefore, enabling vulnerable defendants to access special measures is paramount and urgently called upon.  This could also be achieved through communication aids such as the mood cards described in Chapter Five.

However, the findings of this thesis reveal that there are limitations to how well intermediaries are understood. Limited awareness of the role of intermediaries was identified within the systematic review (Beckene et al., 2020). Therefore, whilst it is important that the intermediary scheme continues to be actively encouraged and advocated for, given that it is still in its infancy, (particularly

when applied to vulnerable defendants), greater awareness of the role and purpose of intermediaries is urgently required, for both professionals and the wider public. This could perhaps be achieved through the development and implementation of targeted awareness training packages offered to all criminal justice professionals, as well as regular refresher or booster sessions. As an example, Intermediaries for Justice (2024) offer a range of training events and online support to enable attendees to widen their understanding of the communication needs associated with autism and mental health needs in the criminal justice system. Similarly, The Advocates Gateway Toolkits (2012-2025) provides access to practical, evidence-based, guidance on communicating with vulnerable witnesses and defendants. Alternatively, real-life exposure to intermediaries, for instance the opportunity for criminal justice professionals to shadow or observe intermediaries in action, may also contribute towards positive outcomes. Similarly, education should also be offered to vulnerable witnesses and defendants, to allow them to make an informed decision regarding whether they choose to accept the support of an intermediary. Increasing public awareness of the role of intermediaries could be one way to achieve this, whilst also simultaneously upskilling wider systemic networks including friends, family members, and carers, so that they too can offer support and guidance around their use. Increasing public awareness would also be helpful in the event that individuals from the general public are summoned for jury service.

Another practical implication that can be drawn from the systematic review is the tailoring of special measures in a more nuanced way. The review suggests consideration towards viewing third-party witnesses, and those witnesses who are also victims, separately, when supporting them to communicate and engage at court. As of yet, there appears to be little research distinguishing between these different subgroups. However, it is tentatively suggested that pre-trial visits may hold greater value for vulnerable witnesses, however in the case of vulnerable witnesses who are also victims, there may be a greater preference towards measures designed to shield the witness from the accused, such as screens, video-link, or pre-recorded evidence. This is an interesting finding, the implications of which highlight the need for special measures to be considered holistically, rather than a ‘one size fits all’ approach, as cautioned against by Hall

(2007). This aligns well with the theme of 'choice', also identified with the review. Across multiple studies, it was found that many witnesses would have preferred greater awareness and discussion of the measures available to them (Hayes et al., 2011). In cases where special measures were offered, some indicated that they would have preferred alternative methods (Hayes et al., 2011; Wood et al., 2015), or the opportunity to reverse measures (Criminal Justice Inspection Northern Ireland, 2012). This is important for criminal justice professionals to be aware of, the consequences of which could result in misplaced encouragement towards unfavoured, and therefore perhaps ineffective, measures.

Moreover, results from the case study in Chapter Five demonstrated the effectiveness of bespoke mood cards, and positive behavioural support, in supporting the communication needs of an inpatient with a learning disability. Findings yielded positive effects, including a notable increase in overall psychological well-being, reductions in aggression and self-harm, and greater communication with staff and peers, particularly during periods of distress. These findings also create a link with the systematic review, in that the positive benefits of communication aids, including electro-larynx or alphabet board, were found helpful by 72% of witnesses (Franklyn, 2012). Consideration could therefore be directed towards applying similar tools to other forensic settings, such as during initial arrest, court, or within prison, to support individuals to communicate effectively in proceedings. As an example, the use of mood cards could form part of the special measures package offered to vulnerable individuals in court to support them in navigating the pace and complexity of verbal communication. Certainly, the use of mood cards is easily accessible to use by all professionals across all levels of expertise. This could also extend beyond that of 'Autism Alert Cards' offered by many autism charities (e.g., the UK's National Autistic Society) to support individuals to voice their vulnerability to professionals and ensure they receive the appropriate response and informed care. Accompanying diagnostic information would also be benefical to use alongside autism alert and mood cards, to negate any possible negative impressions or pre-existing biases (Logos et al., 2021).

Intervention work with Ms Z was also informed by the findings of Chapter Two's systematic review, in relation to the theme of 'choice', highlighting the importance of this in any modality of intervention work. Choice is extremely important in supporting individuals to feel empowered and that their opinions matter (Thomson & Johnson, 2017). However, this can be difficult to achieve within the constraints of a forensic environment, whereby engagement in psychological services is often mandated to progress. Nonetheless, it is well established that therapy is less effective when engagement is motivated by external factors (Flinn et al., 2013; Lord et al., 2015; Mason & Adler, 2012; Parhar et al., 2008). Therefore, to support choice and to encourage independence and collaboration, a long period of rapport and engagement building was facilitated. Within this, Ms Z was supported to reflect on her personal goals for therapy and how these goals aligned with treatment targets identified by the team. In this way, this piece of work took a motivational interviewing approach (Miller & Rollnick, 1991; Rollnick & Miller, 1995), alongside principles of positive psychology (Seligman & Csikszentmihalyi, 2000), to support Ms Z to feel empowered and develop agency in her decision-making. This is in keeping with the work of Kaliski and de Clercq (2012) who contend that, even in the most secure environments, individuals can be actively involved in decision-making processes involved with psychological therapy.

Moreover, during sessions, Ms Z was encouraged to select the part of the positive behaviour plan and mood card that she wanted to focus on during that session. She also selected the images, colours, and named the cards accordingly, to ensure that they were personally relevant and meaningful to her. Sessions were facilitated flexibly, including timings and durations, to support Ms Z's cognitive needs, with the use of regular pausing, repetition, summarising and reflections. Regular breaks and mindfulness-based grounding exercises were also utilised to avoid cognitively overloading Ms Z, alongside follow-up support outside of sessions. Similar themes were also identified in the systematic review, in relation to use of frequent breaks, less formality, and post-trial support (Hayes et al., 2011). Again, these are instrumental for criminal justice professionals to be aware of across all forensic settings, including the police, courts, prisons, secure hospitals, and the community.

## Implications for Research

The critique of jury simulation methods presented in Chapter Three highlights ways to improve the validity and reliability of research within the field. In researching and constructing this critique, it became apparent to the author that a more nuanced relationship between ecological, external, and construct validity could be achievable through utilising more comprehensive and engaging stimuli, greater diversity in participant samples, increasing stimulus sampling and replication of existing stimuli, whilst also paying careful attention to preserving internal validity.

In hindsight, the materials used within the empirical study described in Chapter Four of this thesis were not piloted in advance. Moreover, given that jury simulation studies are typically developed to achieve the aims and hypotheses of specific research, reliability can be difficult to ascertain, as they are not standardised in the way that psychometric measures are. One way to overcome this is by replicating pre-existing published mock trial summaries. Whilst the court and crime summaries within the empirical research were informed by pre-existing materials, they were constructed independently. However, if the author were to replicate the research, then the application of pre-existing materials and piloting would be followed. This would serve to strengthen both internal validity and reliability.

However, considering the nature of the research question (psychological over legal), and the intended audience for the dissemination of empirical findings, i.e., this research thesis was constructed with a view towards publication, the author felt it more appropriate to focus on strengthening internal validity. Indeed, many journals place greater emphasis on studies with high internal validity (Krauss & Lieberman, 2017). This is further supported by Lieberman et al. (2014) who found that 59% of scholars interviewed favoured internal validity over that of ecological validity. Conversely, if the current thesis was pitched for a legal audience, then greater focus on investigating the operational components of the jury system, and therefore favouring external validity, would have been followed.

## Theoretical Contributions

This thesis makes several significant theoretical contributions to improving support for autistic and learning-disabled individuals within the criminal justice system. Firstly, the systematic review in Chapter Two contributes to existing theories of procedural justice (Tyler, 1990; 2006), by highlighting the importance of a person-centred, needs-led, and individualised approach to supporting autistic and learning-disabled individuals at court. It highlights the need for measures to be tailored, not only to individuals' specific cognitive, emotional and communicative needs, but also to their legal role (i.e., whether the individual is a victim or a witness).

Secondly, the findings of the systematic review contribute towards methodological frameworks in both psychology and law. The analysis highlights how methodological choices should align with the nature of the research question (whether legal versus psychological), as well as the intended audience (e.g., academic, applied, or policy makers etc.).

The empirical study outlined in Chapter Four contributes to our understanding of attribution theory (Weiner, 1993). While the disclosure of an autism diagnosis and supporting contextual information, and the presence of an intermediary, did not significantly affect verdicts or sentencing independently, they shaped participants' wider attributions of mental state, responsibility, and intent. These findings align with dual-process models of decision-making (Chaiken & Trope, 1999; Tversky & Kahneman, 1983), suggesting that individuals engage in both rational (systematic) and heuristic (intuitive) processes when evaluating complex information.

Finally, Chapter Five contributes to communication theory by integrating bespoke mood cards into a Positive Behaviour Support (PBS) framework. It highlights how visual communication tools can enhance the effectiveness of behavioural interventions, demonstrating the core role communication plays particularly in learning disability populations.

Taken as a whole, this thesis contributes to Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1974). The research illustrates how micro-level interventions (e.g., intermediaries, autism diagnosis disclosure, mood cards, positive behavioural support) interact with meso and exo level systems (e.g., courtroom procedures, juror perceptions) to shape outcomes for vulnerable individuals. The research supports a systemic approach to embedding a holistic, individualised, and evidence-informed model of care throughout the criminal justice process to inform future research, policy, and practice.

## Recommendations and Future Research Directions

Informed by the findings of this thesis, several important directions for future research and recommendations are identified to continue to enhance our understanding within the field. First, the systematic review highlights the need for future research to compare third-party witnesses and victim-witnesses to better understand how psychological, procedural, and legal differences influence testimony and engagement with the justice system. Additionally, research should examine high and low trauma sexual offence victim groups to determine the extent to which trauma-related differences systematically affect outcomes.

Additionally, greater exploration of the experiences of vulnerable defendants who use special measures is warranted, as this area remains under-researched. Critically, vulnerable defendants represent a marginalised population who are not afforded the same procedural support as vulnerable witnesses. This is concerning and warrants urgent attention.

Consideration should also be directed towards individual differences within witness types, specifically through separating both third-party witnesses and victim-witnesses. It would also be timely to explore the experiences of witnesses who use multiple measures simultaneously, and whether the effectiveness of this combination supersedes the use of stand-alone measures. This would be an interesting piece of work, in light of the findings of the empirical research study whereby limited benefits of the provision of both intermediaries and expert evidence combined were observed.

In addition, whilst many evidence-based intermediary training and awareness programmes have been developed, the author notes a paucity in the literature exploring outcomes of training on attitudes and practice, which warrants further attention. This is particularly important in light of research indicating the need for ongoing support or skills building sessions post-training (Bennett et al., 2007; Miller & Moyers, 2003; Miller & Rollnick, 2013), alongside awareness that often training alone is not enough to alter practice (Clancy & Taylor, 2016). Nonetheless, it is crucial that all criminal justice professionals are offered the opportunity to partake in training packages, to ensure they have a full understanding of the scope of special measures available. Similarly, development of comprehensive post-court debrief packages could also be considered for vulnerable individuals, including both witnesses and defendants, considering the recognised need for greater post-trial support (Hayes et al., 2011). This could lead to the reformation of services to ensure such needs are met.

Findings from the empirical research study also offer many exciting directions for future researchers. The vignette described that of a stalking case perpetrated by an autistic male. However, consideration should be directed towards exploring the effects of juror leniency in wider demographics and areas, for instance females, those with other developmental diagnoses (e.g., ADHD, cerebral palsy, hearing loss, vision impairment etc.), and different crimes. As an example, it would be interesting to explore crimes less researched within the current literature, but associated with features of autism, such as cybercrime, hacking, or radicalisation (Higham et al., 2021; Payne et al., 2019; Walter et al., 2021). Future researchers are also encouraged to explore the role that culture plays within jury-decision making outcomes. This is paramount, in light of the racial disparities that appear across the criminal legal system (Martinez et al., 2023). This is also an area that systematic reviews should seek to explore, to inform areas for future development, and ensure tailored targeted intervention. A greater understanding of why those from minority backgrounds may struggle with communication within the criminal justice system in the first place would be

helpful to inform this, ideally utilising a combination of both qualitative and quantitative methodological approaches.

Findings from the case study similarly highlights the need for greater investigation into gender differences in supporting vulnerable individuals' communication needs. The case study was novel in that it explored the experiences of a female learning disability patient. However, as urged by Davis et al. (2019), further exploration of the efficacy of positive behaviour support within female forensic mental health populations is warranted. This could also be extended to other areas explored within this thesis, such as the systematic review or empirical research study, to explore whether similar outcomes are replicated when examining female experiences. Critically, the experiences of female defendants appear lacking in the literature at present and would be timely to consider further, particularly in light of research indicating that the gender gap for incidences of violence is thought to be narrowed within institutional settings in the criminal justice system (e.g., Greig, 2014; Strand & Belfrage, 2001). The use of positive behaviour support outside of hospital settings, such as prisons, also appears unknown, and would be intriguing to explore further.

## Limitations and Ethical Considerations

It is equally important to acknowledge the limitations of each of the chapters presented within this thesis in the hope that these limitations are critically addressed and overcome within future research.

Chapter Two acknowledges several constraints, including its exclusive focus on third-party witnesses and exclusion of victim-witnesses, which limits ecological validity and generalisability. The exclusion of sexual offence victims and the inclusion of mixed samples, alongside deviations from the original protocol, introduces heterogeneity and potential bias. However, these decisions were driven by the limited availability of eligible studies that met the inclusion criteria. Consequently, inclusion criteria were broadened to incorporate mixed samples to maintain appropriate statistical power and ecological validity. Overall, this

reflects inconsistencies in the evidence base and highlights the need for clearer criteria in future reviews.

Moreover, caution is given in relation to the generalisation and application of findings from the systematic review, given that the final number of included studies was small. Nonetheless, this limitation does evidence a dearth of evaluated research into this area. In addition, the systematic review acknowledges inconsistencies in the types of samples used, with many researchers often reporting on combined outcomes for witnesses and victim-witnesses. This therefore prevented a reliable comparison and raises concerns regarding heterogeneity. Nonetheless, this review does offer a novel piece of research for future researchers, whilst promoting caution that variables need to be clearly defined to ensure clarity and robustness. Moreover, potential bias in relation to the types of papers retrieved were also critically noted. All the studies obtained were government-produced or organisational reports. Whilst these types of reports can offer us new insights, an ability to capture larger sample sizes, and addresses some of the difficulties often seen within empirical research, e.g., publication bias, it is important to recognise drawbacks of this methodology. Dawes and Helbig (2015) identify substantial risks concerning validity, relevance, and trustworthiness of analysis of results in their evaluation of the value and limits of government research. In addition, these reports are not peer-reviewed, which raises concerns regarding researchers and interpreter biases. A complement of both governments produced and or organizational reports, alongside peer-reviewed empirical research, would go some way in overcoming these challenges.

The empirical research presented in Chapter Four recognises some of the drawbacks of jury simulation methods, as critically discussed in Chapter Three. It also acknowledges potential bias in the use of self-report questionnaires by way of social desirability bias and is limited further in that one of the measures demonstrated extremely low internal consistency (the Autism Openness Scale). However, it is noted that the Autism Openness Scale has demonstrated acceptable internal consistency within other research (i.e., Nevill & White, 2011), therefore suggesting that perhaps a more homogenous sample was employed

within the current research. In addition, despite social-desirability concerns, a meta-analysis conducted by Gnambs and Kaspar (2015) revealed that internet-based research appears to evoke significantly more reporting of socially undesirable behaviours compared to that of paper studies. Therefore, online survey methods may offer advantages when assessing sensitive topics, such as exploration of autism attitudes as investigated here. This leads on well to the consideration of ethics when exploring emotive topics, including autism and the use of a stalking offence as captured within the empirical research. This may elicit difficult responses for some individuals. Every effort was therefore made across the thesis to ensure that participants were not exposed to unnecessary harm or distress. This included obtaining full ethical approval from the author's university establishment, alongside adherence to the British Psychological Society 's (2021) Code of Human Research Ethics, including the provision of follow-up support services available.

Similarly, psychometric limitations are critically recognised within the case study in Chapter Five. Importantly, there appears to be a notable shortfall in standardised measures adapted for neurodiverse populations. This is crucial to allow for sensitive changes to be captured. Finally, a greater follow-up period to allow for assessment of longevity of outcomes would have also been fruitful within the case study. However, regrettably, this was not possible due to time constraints but should be cautiously considered within future research.

## Conclusions

The present thesis offers a comprehensive and powerful exploration of the use of special measures and bespoke communication tools to support autistic and learning-disabled individuals in effectively engaging with the criminal justice system. The systematic review is the first to explore vulnerable witnesses' personal experiences of using special measures at court and underscores the importance of adopting an individualised, needs-led approach. It highlights the necessity for greater intervention to ensure comprehension of cross-examination questioning, alongside positive views towards intermediaries and communication aids. The empirical research study further corroborates these findings, providing practical recommendations for criminal justice professionals to encourage the

disclosure of autism diagnoses and the provision of intermediaries. The critique of jury simulation methods identifies best practices for achieving valid and reliable outcomes, while emphasising the importance of aligning research design with the nature of the research question and intended audience. Finally, the case study illustrates the effectiveness of person-centred, individualised intervention in the form of positive behaviour support and bespoke mood cards, for supporting communication in a forensic learning disability client. This demonstrates the pivotal role visual communication tools play in enhancing the effectiveness of behavioural interventions, particularly in learning disability populations. Collectively, this thesis advocates for the adoption of a broader, holistic, and multidisciplinary approach to addressing the communication needs of autistic and learning-disabled individuals throughout their care and treatment within the criminal justice system. The findings also present a compelling case for ensuring that vulnerable defendants receive equitable access to communication supports and special measures, thereby safeguarding their right to engage fully and fairly with the justice process without discrimination.

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# Appendices

## Appendix A

## Example Search Syntax

*PsycINFO (OVID) (Completed on 08/03/2023)*

| # | Search terms | Results |
|---|---|---|
| 1 | exp Witnesses/ | 5967 |
| 2 | (witness* adj3 (vulnerable or intimidat*)).mp. | 90 |
| 3 | (vulnerable or intimidat*).mp. | 48735 |
| 4 | 1 and 3 | 159 |
| 5 | 2 or 4 | 192 |
| 6 | exp adjudication/ | 17022 |
| 7 | exp criminal justice/ | 14941 |
| 8 | exp cross examination/ | 220 |
| 9 | (court* or "cross examin*" or "legal evidenc*").mp. | 42384 |
| 10 | 6 or 7 or 8 or 9 | 58330 |
| 11 | 5 and 10 | 105 |
| 12 | (support* or "special measure*" or adapt* or intermediar* or "live link*" or screen* or aid or aids).mp. | 11840<br>41 |
| 13 | 11 and 12 | 38 |
| 14 | limit 13 to yr="1999 -Current" | Total: 37 |

## Appendix B

## Relevant Studies Excluded (*n*=2)

| Study | Reason for Exclusion |
|---|---|
| Ministry of Justice (2010) | Data/outcomes not reported |
| Fairclough (2020) | Literature Review paper |

**Appendix C**

**Quality Assessment Form- Critical Appraisal Skills Programme (2018).**

**CASP Qualitative Checklist**

Source Database:
Full Reference:

| Question | Score<br>Y (2) P (1) N (0) U |
|---|---|
| 1. Was there a clearstatement of the aims of the research? | |
| 2. Is a qualitative methodology appropriate? | |
| 3. Was the research design appropriate to address the aims of the research? | |
| 4. Was the recruitment strategy appropriate to the aims of the research? | |
| 5. Was the data collected in a way that addressed the research issue? | |
| 6. Has the relationship between researcher and participants been adequately considered? | |
| 7. Have ethical issues been taken into consideration? | |
| 8. Was the data analysis sufficiently rigorous? | |
| 9. Is there a clear statement of findings? | |
| 10. How valuable is the research? | |

*Studies were scored as follows in relation to each question:*
*0 = Condition not met*
*1 = Condition partially met*
*2 = Condition fully met*
*U = Unclear/insufficient information provided*

## Appendix D

## Data Extraction form

Source Database:
Full Reference:

---

Reference

Sample

Method

Outcome(s)

Quality Assessment Score

Quality of Reporting Score

---

## Appendix E

## Demographic Questionnaire

This part of the study asks for some general information about you, with questions on a
range of topics which we will ask all participants to complete. Remember it cannot be
used to identify you as all data is anonymous.

1) Are you:
    - Male
    - Female
    - Prefer not to say

2) What is your age?

3) What is your nationality?

4) What is your religious preference?

## Appendix F

## Autism Openness Scale

(Nevill & White, 2011)

Jamie is a new resident in your apartment building. Jamie does not spend time with, or talk with, neighbors and finds it hard to make friends. Jamie is mostly very quiet. When Jamie speaks or does things, they are usually done over and over again. For example, when telling you a joke, Jamie may repeat the punch line over and over again. Jamie does not usually show signs of happiness, sadness, or fear and sometimes has a confused facial expression when walking around campus or talking to people. When in Jamie's room, Jamie usually spends a great deal of time sitting in a chair and rocking back and forth. Jamie also likes to always have a book in-hand and occasionally reads it while walking. Jamie is a good person and is quite generous with time and possessions. Jamie is always willing to help others out with their work when they ask for it.

Based on the above vignette, please answer the below statements on a 5-point Likert-type with *(1) indicating strongly disagree and (5) indicating strongly agree.*

1. This person makes me feel afraid.

2. This person is probably as smart as I am.

3. I would not mind Jamie living in my hallway or apartment building.

4. I would hang out with Jamie in my free time.

5. I would feel comfortable around this person.

6. This person is different from me.

7. Overall, I think I would like Jamie as a person.

## Appendix G

## Autism Awareness Survey

(AAS, Tipton & Blacher, 2014)

Please rate the truthiness of the following items on a 0-4 scale with 0 indicating disagree and 4 indicating agree.

1. Autism is an emotional disorder.
2. Vaccines are causing an increase in autism.
3. There is a cure for autism.
4. Autism runs in families.
5. All children with autism display poor eye contact.
6. Autism is diagnosed more frequently in males than in females.
7. Changing a child's diet will lessen the severity of autism symptoms.
8. There is one intervention that works for all children with autism.
9. Children with autism can grow up to live independently.
10. Autism is a developmental disorder.
11. Autism can be diagnosed as early as 18 months.
12. Children with autism are smarter than standardized tests demonstrate.
13. It is important that all children with autism receive special education services.
14. With the proper treatment, most children with autism will eventually outgrow it.

## Appendix H

## Level of Contact Report (LCR, Gardiner & Larocci, 2014)

ASD is a neurodevelopmental disorder characterised by impairments in social communication and interaction, and restricted and repetitive behaviours and interests (American Psychiatric Association, 2013).

Please keep this definition in mind as you respond to the following questions. Please read each of the following statements carefully and select yes or no for each statement that is true for you.

1. I have watched a movie or television show in which a character depicted a person with autism.
2. My job involves providing services/treatment for persons with autism.
3. I have observed, in passing, a person I believe may have had autism.
4. I have observed persons with autism on a frequent basis.
5. I have autism.
6. I have worked with a person who had autism at my place of employment.
7. I have never observed a person that I was aware had autism.
8. A friend of the family has autism.
9. I have a relative who has autism.
10. I have watched a documentary on the television about autism.
11. I live with a person who has autism.

# Appendix I

## Case Summary

Case Summary

The following is a summary of a criminal trial about the alleged criminal stalking of Ms Smith by the defendant, Mr Murphy. It is alleged that Mr Murphy stalked Ms Smith during a period of 9 months beginning February 2021 and ending November 2021. The circumstances are as follows:

Mr Murphy was watching an emergency services programme when a woman, Ms Smith, was interviewed about her experiences working as a nurse. Mr Murphy found Ms Smith to very attractive and was interested in pursuing a relationship with her. Mr Smith found her contact details online and called Ms Smith on the telephone, however she declined his requests to meet. Since then, Mr Murphy has phoned Ms Smith on several occasions. He has also sent her flowers and chocolates to her hospital alongside personal letters insisting they should meet. On one occasion, Ms Smith's supervisor advised her that a concerned young man 'claiming to be her boyfriend' inquired about her after noticing her car was not in the carpark for several days. She said her anxiety escalated when she noticed Mr Murphy was waiting in the carpark at her doctor's surgery, and a week later, at her local supermarket and insisted that they needed to talk. Ms Smith reports that Mr Murphy's behavior had caused her serious concern for her safety and as a result, she had trouble sleeping and has recently applied to transfer to work in a different hospital outside of the area.

When officers arrived on the scene to arrest Mr. Murphy, he presented as highly agitated and severely distressed. He was observed to cover his ears and rock back and forth.
They tried to restrain him using handcuffs, however he became verbally aggressive towards police officers. He kept trying to pull away and attempted to hit one of the police officers. In the custody suite, he continued to appear distressed. He was sweating, rocking back and forth, and pacing up and down. His appeared visibly anxious and spoke in a monotone flat voice.

## Appendix J

## Court Summary and cross-examination

The following is a summary of the court trial involving the alleged criminal stalking of Ms Smith by the defendant, Mr Murphy.
Dr Matthews is an Intermediary. Dr Matthews is a Forensic Psychologist with fourteen years' worth of experience working with adults with ASD. Her role is to support communication during evidence. This includes taking notes and simplifying language. Dr Matthews recommended that Mr Murphy was provided with a notepad to aid in his understanding. She further recommended that prior to the trial, Mr Murphy attends the court building for a 'familiarisation visit' to the building and court room. The judge accepted these recommendations.

Court Summary

In court, Mr Murphy sat next to his lawyers at the defense table with a smile on his face and
showed little remorse for his actions. He avoided eye contact with the judge and jury and presented with unusual and limited facial expressions. During questioning, he spoke in a loud and high-pitched tone and was observed to be rocking back and forth, as well as flicking his fingers and doodling in his notepad. On the stand, he often made irrelevant and off-topic intrusions and spoke with little emotion.

Examination-in-Chief

Defence barrister: Mr Murphy, please tell me about the day you first met Ms Smith

Mr Murphy: I met a very pretty girl

Defence Barrister: What happened next?

Mr Murphy: I sent her flowers. I like flowers, my favourite flowers are –

Defence Barrister: *Interrupting* We do not need to hear about your favourite flowers Mr Murphy. When you gave Ms Smith the flowers, what did she say? Did she ask you to leave? Was security called? Were you removed from the building?

*Dr Matthews: Excuse me your honour, that question is too open, please could counsel*
*Rephrase to one question at a time?*

Mr Murphy: No *Smiles *

Defence Barrister: What happened when you spoke to Ms Smith?

Mr Murphy: *places hands on ears* I can't remember. *Begins to start rocking back and forth with glazed eyes*

*Dr Matthews: Excuse me your honour, Mr appears tired and loosing focus. Please may I request a short break?*
Cross Examination
Prosecution Barrister: Even though Ms Smith did not explicitly ask you to leave, did she walk away?

Mr Murphy: Yes

Prosecution Barrister: So, could she have not wanted to speak?

Mr Murphy: No *Starts doodling in notepad*

Prosecution Barrister: You continued to approach her even though she was not interested, didn't you? You followed her to her doctors? Her supermarket?

*Dr Matthews: Excuse me your honour, that question is too open, please could counsel*
*Rephrase to one question at a time?*

Mr Murphy: I don't remember. *Looks at clock* Shit, its 1'o'clock, I need my lunch.

Prosecution Barrister: Please just answer the question Mr Murphy, and please do not use that language. Now would it be right to say that you continued to approach Ms Smith? You knew she was disinterested, but carried on, regardless didn't you?

*Dr Matthews: Excuse me your honour, please could counsel Rephrase to break the question up into more than one question and say it in a simpler way?*

Mr Murphy: I don't remember. I didn't mean it *continues doodling*

Lawyer: So, you accept that you followed Ms Smith on many occasions even when she told you she was not interested?

Mr Murphy: I didn't mean to. She was pretty and she smelled nice. I wanted to be her to be my girlfriend.

## Appendix K
## Autism Diagnosis Disclosure Testimony

Instructions:

You will now be presented with additional information on the case for which you are on the jury.

Testimony

Dr Jones, a Forensic Psychiatrist, gave expert testimony during the trial. She advised that Mr Murphy has Autism Spectrum Disorder (ASD) and his condition likely influenced the events on trial. She explained that ASD is a developmental condition that affects how a person communicates with, and relates to, other people. They often present difficulties in understanding social interactions, other's emotions, empathy and speak with limited emotion. Nonetheless, individuals with ASD present with normal intelligence.

Dr Jones continued to explain that people with this condition often struggle to communicate with others appropriately and can present with unusual or limited facial expressions, as well as unusual eye contact or avoid making eye contact altogether. They may display restrictive and repetitive behaviours such as rocking back and forth, pacing, finger flicking and hand or foot tapping, particularly in stressful situations. They may find it difficult maintaining two-way conversation and can be less responsive to cues for turn-taking. These individuals may exhibit a rigid adherence to routines and can present extremely anxious if unable to follow this. Those with autism may experience hypersensitivity to bright lights, sounds, smells, textures, and tastes. This can result in sensory avoidance – trying to get away from stimuli that most people can easily tune out. They may also present difficulties in establishing and maintaining friendships with peers with few long-lasting relationships.

Dr Jones explained that Mr Murphy's condition likely affected his view of the situation. Mr Murphy is likely to have had difficulties interpretating Ms Smith's non-verbal communication, including her body language, facial expressions and tone of voice as being not interested. His hypersensitive to touch likely explains his verbal and physical aggression towards police officers when they attempted

to handcuff him. Sensory avoidance likely played a role in him pulling away from their physical touch, as well as covering his hears to avoid the loud and unpredictable sound of the sirens. It is likely that he misunderstood the police officers' intentions as aggressive and threatening and felt as though he needed to protect himself.

Dr Jones also advised that Mr Murphy's condition likely explained his behaviour during trial, including limited facial expressions and eye contact, little emotion, and remorse, as well as appearing disinterested, smiling, and doodling in his notepad. He further advised that Mr Murphy struggles to respond to open, unsupportive questions and in these instances often makes irrelevant and off-topic intrusions which appear incoherent.

## Appendix L

## Attributions of Guilt

Stalking is illegal in England and Wales. The Protection from Harassment Act 1997 defines the crime in the following manner:

A person must not pursue a course of conduct—
(a) which amounts to harassment of another, and
(b) which he knows or ought to know amounts to harassment of the other.

Note:

- A 'course of conduct' must involve conduct on at least two occasions. So, two or more separate incidents are required. However, these incidents do not have to bear any similarity to each other.
- 'Conduct' includes speech.
- Harassing a person includes alarming the person or causing the person distress.
- The person whose course of conduct is in question ought to know that it amounts to harassment of another if any reasonable person in possession of the same information would be expected to think the same.
- Any persistent, unwanted behavior can be counted as harassment

As members of the jury, it is important you should approach the evidence fairly and discard any personal beliefs and assumptions. Assess your judgements purely on the
basis of the way in which stalking is described in the legal definition above. Please be diligent in making your decisions. Remember, to be 'stalking', the case must fulfil all the criteria set down in the law (i.e., both a and b)

1) a) Based upon the definition provided above, do you believe that the defendant is guilty?

   b) Why did you give this rating? Please explain your answer.

*2)* a) To what extent do you believe the defendant is responsible for the crime?
*(1 = "not at all" to 5= "extremely")*

b) Why did you give this rating? Please explain your answer.

3) a) To what extent do you believe the defendant is credible?
*(1 = "not at all" to 5= "extremely")*

b) Why did you give this rating? Please explain your answer.

[PAGE BREAK]

4) a) On the assumption that the defendant is found guilty, please indicate a recommended sentence length *(measured in 6-month intervals).*

b) Why did you give this rating? Please explain your answer.

## Appendix M

## Information Form

**Information Form**

**Study Title: Attitudes Influencing Jury Decision Making**

**Research Team:** Dr Michelle Mattison, Associate Professor and Kirsty Osborn Trainee Forensic Psychologist**,** Centre for Forensic and Family Psychology, School of Medicine, University of Nottingham

**Faculty of Medicine & Health Sciences Research Ethics Ref: FMHS 498-0322**

This study is investigating attitudes influencing jury decision making. Research highlights that the process by which jurors come to determine judgements of guilt are heavily influenced by personal biases. This study aims to explore this further.

Thank you for your interest. You are invited to take part because you are aged between 18-75 years. Please read through this information before agreeing to participate. You can ask any questions before deciding by contacting the researchers (details below). Participation is entirely voluntary.

**What will I be asked to do?**

If you consent to take part, you will be asked to provide some basic demographic information (i.e., age, sex, race). At this point you will be offered the opportunity to be entered into a prize draw to receive a £30 Amazon gift card as a thank you/asked to create your own ID code. You will then be presented with a crime vignette, as well as a summary of the case in court, followed by a series of questionnaires to widen our understanding of this underreported area. The whole task will take approximately 35 minutes to complete. No background knowledge is required.

**Please note: You will participate in a mock jury setting and will be presented with a case of stalking. Due to the nature of this study, you may only participate if you are aged between 18-75, not lacking capacity within the meaning of the Mental Capacity Act (Department of Health 2005) and not recently serving a criminal conviction. It is**

**strongly recommended not to participate if you been a victim or witness to any form of stalking or believe that participation may cause you distress or anxiety.**

You are encouraged to answer all questions as honestly and completely as possible however you may omit any questions that you did not wish to answer.

This study is not expected to involve any physical risks; however, there is a slight risk of distress or anxiety. You can withdraw at any point during the research for any reason, before submitting your answers by clicking the Exit button/closing the browser. The data will only be uploaded on completion of the questionnaire by clicking the SUBMIT button on the final page. At this point it will not be possible to withdraw your answers. Your participation is completely voluntary and does not involve payment; however, you can opt to be entered into a prize draw as detailed above. All data will be kept in electronic format and stored on a password-accessed computer. The results of this study may be published or reported; however, your name will not be associated in any way with any published results.

To maintain confidentiality of records, you will be asked to invent a personal code. To conclude, you will be presented with a Debrief page providing you with detailed information about the research topic and details of where you can seek support if you have been affected by the issues raised in the study.

**What are the disadvantages of taking part?**

You will participate in a mock jury setting and will be presented with a case of stalking. Due to the nature of this study, you may only participate if you are aged 18 or over and it is strongly recommended not to participate if you been a victim or witness to any form of stalking or believe that participation may cause you distress or anxiety. It is possible that you may find the issues raised in the study upsetting or make you feel uncomfortable. Please take time to think carefully about whether it might be an upsetting or sensitive topic for you at present.

**What are the advantages of taking part?**

Your contribution, together with others, will help the researchers to understand more about attitudes towards jury decision making and how to ensure fair access to trial.

**Who will know I have taken part in the study?**

Participation is completely confidential. You will not be asked for your name or any other personal ID during this questionnaire. Your IP address will not be visible to or stored by the research team because an online survey platform is being used which receives and stores an IP address but enables this detail to be filtered out before it is transferred to the research team. As with any online related activity, the risk of breach is possible, but this risk is being minimized by using a platform that sits on an encrypted webpage. For further information about the online survey tool security please see https://www.onlinesurveys.ac.uk/security/

**What will happen to your data?**

When you have clicked the submit button at the end of the questionnaire, your data will be uploaded onto a password protected database with a code number. The research team will not be able to see who it is from and for this reason it will not be possible to withdraw your data at this point. Your data (research data) will be stored in a password-protected folder sitting on a restricted access server at the University under the terms of its data protection policy. Data is kept for a minimum of 7 years.

This research is for a Doctorate project and the answers received from all participants will be combined in a password protected database ready for analysis. The results will be written up as a dissertation and may be used in academic publications and presentations. The overall anonymised data from this study may be shared for use in future research and teaching (with research ethics approval).

The only personal data we will receive is your e-mail if you contact us to ask further questions or need support and/or take up the opportunity of being entered into a draw to receive a £30 Amazon gift card. This will be received and handled separately from your completed questionnaire and it will not be possible to link the sets of data. Your e-mail address will only be kept as long as needed

to resolve your query and/or for the prize draw to take place. It will then be destroyed. For further information about how the university processes personal data please see: https://www.nottingham.ac.uk/utilities/privacy.aspx/

**Who will have access to your data?**

The University of Nottingham is the data controller (legally responsible for data security) and the Supervisor of this study (named above) is the data custodian (manages access to the data) and as such will determine how your data is used in the study. Your research and personal data will be used for the purposes of the research only. Research is a task that we perform in the public interest.

Responsible members of the University of Nottingham may be given access to data for monitoring and/or audit of the study to ensure it is being carried out correctly.

If you have any questions or concerns about this project, please contact:

Kirsty Osborn E-mail kirsty.osborn@nottingham.ac.uk)

or if you have any concerns about any aspect of this study please contact the Research Supervisor: Dr Michelle Mattison Email michelle.mattisn@nottingham.ac.uk).

If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator E-mail: FMHS-ResearchEthics@nottingham.ac.uk

**Declaration:** I have read and understood the above information and consent form, I confirm that I am 18 years old or older and by clicking the NEXT button to begin the online questionnaire, I indicate my willingness to voluntarily take part in the study.

If you are happy to proceed, please click the 'NEXT' button below.

NEXT – I consent to take part EXIT - I do not give consent

## Appendix N
## Consent Form

**Consent Form**

**Study Title: Jury Decision Making in a Stalking Case**

**Research Team:** Dr Michelle Mattison, Associate Professor and Kirsty Osborn Trainee Forensic Psychologist**,** Centre for Forensic and Family Psychology, School of Medicine, University of Nottingham

**Faculty of Medicine & Health Sciences Research Ethics Ref: FMHS 498-0322**

Thank you for agreeing to take part in this research. To continue with the study please read and confirm the following:

- ○ I confirm that I have read and understood the information on the previous page
- ○ I am aged between 18-75
- ○ I am NOT currently serving a criminal conviction
- ○ I am NOT currently lacking capacity as defined within the meaning of the Mental Capacity Act (Department of Health 2005)
- ○ I understand that my participation is voluntary, and I can end the study at any time and withdraw my data while the study is being conducted by clicking the EXIT button.
- ○ I understand that my answers are anonymous and personal details will be kept confidential.
- ○ I understand the overall anonymized data from this study may be used in the future for research and teaching purposes (with research ethics approval).
- ○ I understand that data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group, and regulatory authorities where it is relevant to my taking part in this study.
- ○ I agree to take part in the study.

## Appendix O

## Debrief Form

**Debrief Form**

**Study Title: Attitudes Influencing Jury Decision Making**

**Research Team:** Dr Michelle Mattison, Associate Professor and Kirsty Osborn Trainee Forensic Psychologist**,** Centre for Forensic and Family Psychology, School of Medicine, University of Nottingham

**Faculty of Medicine & Health Sciences Research Ethics Ref: FMHS 498-0322**

**Thank you very much for taking the time to participate in this study.**

The research you have just participated in is being used to examine the effects of providing expert psychiatric testimony about a defendant's Autism Spectrum Disorder (ASD), as well as provision of a Registered Intermediary, on jury decision making in cases of stalking and attributions of credibility and responsibility.

You were asked to participate in a mock jury setting being presented with a crime of stalking. You were instructed to read the case summary and court summary and complete a series of questionnaires to widen our understanding of this underreported area.

Research highlights that the process by which jurors come to determine judgements of guilt are heavily influenced by personal biases. Yet whilst the influence of psychotic disorders and mental illness have received much attention in legal contexts (Mossière & Maeder, 2016), little research has sought to examine the impact of developmental disabilities in this area. In particular, the influence of autism spectrum disorder (ASD) on jury-decision making, lacks substantial exploration. Of the little research that has sought to investigate this, findings are conflicting with some studies suggesting that ASD is an aggravating factor (Freckleton, 2013) and others indicating that ASD is a mitigating factor of responsibility and guilt (Maras et al., 2019). Within the current limited literature,

studies have primarily focused on the disclosure of a defendant's ASD, or providing generic information as well as severity of ASD symptoms, however as highlighted by Sturges et al. (2021), further research is needed to examine the impact of specific impairment information in greater detail to provide conclusive evidence on whether this information should be emphasized in testimony. In addition, most research exploring the impact of special measures on the experiences of individuals in contact with the Criminal Justice System (CJS) has focused primarily on vulnerable witnesses. As such there is limited empirical evidence exploring the impact of special measures with vulnerable defendants with ASD, including the use of Registered Intermediaries.

If you are concerned about any of the issues raised in the survey, you may find the following web resources helpful:

Stalking and harassment (supportline.org.uk)

Stalking and harassment - Victim Support

If you have any further questions about the study or wish to be informed of the outcomes once all data has been analysed, please contact the researcher by emailing msxko6@nottingham.ac.uk.

The University of Nottingham is the data controller (legally responsible for data security) and the Supervisor of this study (named above) is the data custodian (manages access to the data) and as such will determine how your data is used in the study. Your research and personal data will be used for the purposes of the research only.  Research is a task that we perform in the public interest.

Responsible members of the University of Nottingham may be given access to data for monitoring and/or audit of the study to ensure it is being carried out correctly.

Please pass this study on to as many people including friends, family and work colleagues as possible (e.g. through emails, social networking etc), ensuring they are adults between the age of 18-75.

**Once again, a big thank you for taking the time to participate in this research.**

If you have any questions or concerns about this project, please contact:

Kirsty Osborn E-mail kirsty.osborn@nottingham.ac.uk)

or if you have any concerns about any aspect of this study please contact the Research Supervisor: Dr Michelle Mattison Email michelle.mattisn@nottingham.ac.uk).

If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator E-mail: FMHS-ResearchEthics@nottingham.ac.uk

# Appendix P

## Ethical Approval Confirmation Letter

University of Nottingham
UK | CHINA | MALAYSIA

**Faculty of Medicine & Health Sciences**
**Research Ethics Committee**
Faculty Hub
Room E41, E Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH
Email: FMHS-ResearchEthics@nottingham.ac.uk

29 April 2022

**Kirsty Osborn**
Doctorate in Forensic Psychology student
Forensic and Family Psychology
AU1 Mental Health and Clinical Neurosciences
School of Medicine
Yang Fujia Building
University of Nottingham Jubilee Campus
Wollaton Road, Nottingham
NG5 1BB

Dear Ms Osborn

| | |
|---|---|
| **Ethics Reference No:** FMHS 498-0322 **– please always quote** | |
| **Study Title**: Jury decision making in cases with autistic defendants: The impact of expert psychiatric testimony and intermediaries on perceptions of credibility and responsibility | |
| **Chief Investigator/Supervisor:** Michelle Mattison, Associate Professor, Forensic and Family Psychology, Mental Health and Neurosciences, School of Medicine | |
| **Lead Investigators/student**: Kirsty Osborn, Doctorate in Forensic Psychology student, School of Medicine | |
| **Proposed Start Date:** 01/04/2022 | **Proposed End Date:** 31/03/2023 |

Thank you for submitting this application which was considered by a subcommittee on 12 April 2022. The following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 21.03.2022

These have been reviewed and are satisfactory and the project is given a favourable ethics opinion.

A favourable ethics opinion is given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

pp

**Dr John Williams, Associate Professor in Anaesthesia and Pain Medicine**
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

# Appendix Q

## SPSS Output

A. Chi-square test of independence examining the effect of experimental condition on verdict.

**To continue, please select the colour red below * Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: Crosstabulation**

| | | | Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: | | |
|---|---|---|---|---|---|
| | | | Guilty | Not Guilty | Total |
| To continue, please select the colour red below | Red | Count | 23 | 30 | 53 |
| | | Expected Count | 25.3 | 27.7 | 53.0 |
| | | % within To continue, please select the colour red below | 43.4% | 56.6% | 100.0% |
| | | % within Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: | 21.7% | 25.9% | 23.9% |
| | | % of Total | 10.4% | 13.5% | 23.9% |
| | Yellow | Count | 20 | 32 | 52 |
| | | Expected Count | 24.8 | 27.2 | 52.0 |
| | | % within To continue, please select the colour red below | 38.5% | 61.5% | 100.0% |
| | | % within Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: | 18.9% | 27.6% | 23.4% |
| | | % of Total | 9.0% | 14.4% | 23.4% |
| | Blue | Count | 29 | 32 | 61 |
| | | Expected Count | 29.1 | 31.9 | 61.0 |
| | | % within To continue, please select the colour red below | 47.5% | 52.5% | 100.0% |
| | | % within Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: | 27.4% | 27.6% | 27.5% |

| | | | | | |
|---|---|---|---|---|---|
| | | % of Total | 13.1% | 14.4% | 27.5% |
| | Purple | Count | 34 | 22 | 56 |
| | | Expected Count | 26.7 | 29.3 | 56.0 |
| | | % within To continue, please select the colour red below | 60.7% | 39.3% | 100.0% |
| | | % within Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: | 32.1% | 19.0% | 25.2% |
| | | % of Total | 15.3% | 9.9% | 25.2% |
| Total | | Count | 106 | 116 | 222 |
| | | Expected Count | 106.0 | 116.0 | 222.0 |
| | | % within To continue, please select the colour red below | 47.7% | 52.3% | 100.0% |
| | | % within Should Mr Murphy receive a 'guilty' or 'not guilty' verdict? Please choose from the below options: | 100.0% | 100.0% | 100.0% |
| | | % of Total | 47.7% | 52.3% | 100.0% |

**Chi-Square Tests**

| | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 5.974[a] | 3 | .113 |
| Likelihood Ratio | 6.010 | 3 | .111 |
| Linear-by-Linear Association | 4.075 | 1 | .044 |
| N of Valid Cases | 222 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.83.

**Symmetric Measures**

| | | Value | Approximate Significance |
|---|---|---|---|
| Nominal by Nominal | Phi | .164 | .113 |
| | Cramer's V | .164 | .113 |
| N of Valid Cases | | 222 | |

B. One-way analysis of variance (ANOVA) exploring sentence length recommendations across conditions

## Oneway

### Descriptives

On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| Red | 47 | 1.49 | 2.306 | .336 | .82 | 2.17 | 0 | 12 |
| Yellow | 44 | 1.39 | 4.768 | .719 | -.06 | 2.84 | 0 | 25 |
| Blue | 54 | 1.96 | 5.121 | .697 | .56 | 3.36 | 0 | 26 |
| Purple | 50 | .76 | 1.564 | .221 | .32 | 1.21 | 0 | 8 |
| Total | 195 | 1.41 | 3.778 | .271 | .88 | 1.95 | 0 | 26 |

### Test of Homogeneity of Variances

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | Based on Mean | 2.578 | 3 | 191 | .055 |
| | Based on Median | .891 | 3 | 191 | .447 |
| | Based on Median and with adjusted df | .891 | 3 | 118.656 | .448 |
| | Based on trimmed mean | 1.204 | 3 | 191 | .310 |

### ANOVA

On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 37.514 | 3 | 12.505 | .874 | .455 |
| Within Groups | 2731.964 | 191 | 14.303 | | |
| Total | 2769.478 | 194 | | | |

### Robust Tests of Equality of Means

On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

| | Statistic[a] | df1 | df2 | Sig. |
|---|---|---|---|---|
| Welch | 1.756 | 3 | 96.165 | .161 |

a. Asymptotically F distributed.

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

| | (I) To continue, please select the colour red below | (J) To continue, please select the colour red below | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|---|
| | | | | | | Lower Bound | Upper Bound |
| Tukey HSD | Red | Yellow | .101 | .793 | .999 | -1.96 | 2.16 |
| | | Blue | -.465 | .754 | .927 | -2.42 | 1.49 |
| | | Purple | .731 | .768 | .777 | -1.26 | 2.72 |
| | Yellow | Red | -.101 | .793 | .999 | -2.16 | 1.96 |
| | | Blue | -.565 | .768 | .882 | -2.56 | 1.43 |
| | | Purple | .630 | .782 | .852 | -1.40 | 2.66 |
| | Blue | Red | .465 | .754 | .927 | -1.49 | 2.42 |
| | | Yellow | .565 | .768 | .882 | -1.43 | 2.56 |
| | | Purple | 1.195 | .742 | .375 | -.73 | 3.12 |
| | Purple | Red | -.731 | .768 | .777 | -2.72 | 1.26 |
| | | Yellow | -.630 | .782 | .852 | -2.66 | 1.40 |
| | | Blue | -1.195 | .742 | .375 | -3.12 | .73 |
| Games-Howell | Red | Yellow | .101 | .794 | .999 | -2.00 | 2.20 |
| | | Blue | -.465 | .774 | .932 | -2.50 | 1.57 |
| | | Purple | .731 | .403 | .274 | -.33 | 1.79 |
| | Yellow | Red | -.101 | .794 | .999 | -2.20 | 2.00 |
| | | Blue | -.565 | 1.001 | .942 | -3.18 | 2.05 |
| | | Purple | .630 | .752 | .836 | -1.37 | 2.63 |
| | Blue | Red | .465 | .774 | .932 | -1.57 | 2.50 |

C. One-way multivariate analysis of variance (MANOVA) exploring the effect of experimental condition on criminal intention, legal responsibility, and moral responsibility ratings with follow-up post-hoc tests.

## Regression

### Variables Entered/Removed[a]

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Moral_Responsibility, Criminal_Intention, Legal_Responsibility[b] | . | Enter |

a. Dependent Variable: To continue, please select the colour red below

b. All requested variables entered.

### Model Summary[b]

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .189[a] | .036 | .023 | 1.099 |

a. Predictors: (Constant), Moral_Responsibility, Criminal_Intention, Legal_Responsibility

b. Dependent Variable: To continue, please select the colour red below

### ANOVA[a]

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 9.772 | 3 | 3.257 | 2.696 | .047[b] |
| | Residual | 263.363 | 218 | 1.208 | | |
| | Total | 273.135 | 221 | | | |

a. Dependent Variable: To continue, please select the colour red below

b. Predictors: (Constant), Moral_Responsibility, Criminal_Intention, Legal_Responsibility

**Coefficients[a]**

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 2.416 | .287 | | 8.417 | .000 |
| | Criminal_Intention | -.116 | .076 | -.108 | -1.537 | .126 |
| | Legal_Responsibility | .206 | .078 | .201 | 2.647 | .009 |
| | Moral_Responsibility | -.095 | .077 | -.092 | -1.235 | .218 |

a. Dependent Variable: To continue, please select the colour red below

**Residuals Statistics[a]**

| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | 1.92 | 3.03 | 2.54 | .210 | 222 |
| Std. Predicted Value | -2.972 | 2.325 | .000 | 1.000 | 222 |
| Standard Error of Predicted Value | .079 | .307 | .140 | .047 | 222 |
| Adjusted Predicted Value | 1.77 | 3.08 | 2.54 | .214 | 222 |
| Residual | -1.972 | 2.079 | .000 | 1.092 | 222 |
| Std. Residual | -1.794 | 1.892 | .000 | .993 | 222 |
| Stud. Residual | -1.843 | 1.959 | .000 | 1.002 | 222 |
| Deleted Residual | -2.079 | 2.229 | .000 | 1.112 | 222 |
| Stud. Deleted Residual | -1.853 | 1.972 | .000 | 1.004 | 222 |
| Mahal. Distance | .138 | 16.197 | 2.986 | 2.947 | 222 |
| Cook's Distance | .000 | .069 | .005 | .007 | 222 |
| Centered Leverage Value | .001 | .073 | .014 | .013 | 222 |

a. Dependent Variable: To continue, please select the colour red below

# General Linear Model

## Between-Subjects Factors

| | | Value Label | N |
|---|---|---|---|
| To continue, please select the colour red below | 1 | Red | 53 |
| | 2 | Yellow | 52 |
| | 3 | Blue | 61 |
| | 4 | Purple | 56 |

## Descriptive Statistics

| | To continue, please select the colour red below | Mean | Std. Deviation | N |
|---|---|---|---|---|
| Legal_Responsibility | Red | 3.17 | 1.069 | 53 |
| | Yellow | 3.12 | 1.060 | 52 |
| | Blue | 3.33 | 1.091 | 61 |
| | Purple | 3.52 | 1.095 | 56 |
| | Total | 3.29 | 1.084 | 222 |
| Criminal_Intention | Red | 2.15 | 1.183 | 53 |
| | Yellow | 2.04 | .928 | 52 |
| | Blue | 1.92 | 1.021 | 61 |
| | Purple | 1.98 | .981 | 56 |
| | Total | 2.02 | 1.029 | 222 |
| Moral_Responsibility | Red | 3.42 | .989 | 53 |
| | Yellow | 3.52 | 1.093 | 52 |
| | Blue | 3.07 | 1.167 | 61 |
| | Purple | 3.48 | .991 | 56 |
| | Total | 3.36 | 1.075 | 222 |

**Box's Test of Equality of Covariance Matrices[a]**

| | |
|---|---|
| Box's M | 10.853 |
| F | .588 |
| df1 | 18 |
| df2 | 163004.957 |
| Sig. | .911 |

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Q10

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| Intercept | Pillai's Trace | .935 | 1030.700[b] | 3.000 | 216.000 | .000 | .935 |
| | Wilks' Lambda | .065 | 1030.700[b] | 3.000 | 216.000 | .000 | .935 |
| | Hotelling's Trace | 14.315 | 1030.700[b] | 3.000 | 216.000 | .000 | .935 |
| | Roy's Largest Root | 14.315 | 1030.700[b] | 3.000 | 216.000 | .000 | .935 |
| Q10 | Pillai's Trace | .077 | 1.918 | 9.000 | 654.000 | .047 | .026 |
| | Wilks' Lambda | .924 | 1.928 | 9.000 | 525.838 | .046 | .026 |
| | Hotelling's Trace | .081 | 1.932 | 9.000 | 644.000 | .045 | .026 |
| | Roy's Largest Root | .062 | 4.480[c] | 3.000 | 218.000 | .004 | .058 |

a. Design: Intercept + Q10

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

**Levene's Test of Equality of Error Variances[a]**

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Legal_Responsibility | Based on Mean | .160 | 3 | 218 | .923 |
| | Based on Median | .204 | 3 | 218 | .894 |
| | Based on Median and with adjusted df | .204 | 3 | 193.216 | .894 |
| | Based on trimmed mean | .149 | 3 | 218 | .930 |
| Criminal_Intention | Based on Mean | 1.985 | 3 | 218 | .117 |
| | Based on Median | 1.508 | 3 | 218 | .213 |
| | Based on Median and with adjusted df | 1.508 | 3 | 209.412 | .214 |
| | Based on trimmed mean | 1.862 | 3 | 218 | .137 |
| Moral_Responsibility | Based on Mean | .358 | 3 | 218 | .783 |
| | Based on Median | .729 | 3 | 218 | .536 |
| | Based on Median and with adjusted df | .729 | 3 | 212.378 | .536 |
| | Based on trimmed mean | .487 | 3 | 218 | .692 |

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Q10

**Tests of Between-Subjects Effects**

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| Corrected Model | Legal_Responsibility | 5.345[a] | 3 | 1.782 | 1.528 | .208 | .021 |
| | Criminal_Intention | 1.640[b] | 3 | .547 | .513 | .674 | .007 |
| | Moral_Responsibility | 7.603[c] | 3 | 2.534 | 2.232 | .085 | .030 |
| Intercept | Legal_Responsibility | 2383.177 | 1 | 2383.177 | 2043.761 | .000 | .904 |
| | Criminal_Intention | 904.519 | 1 | 904.519 | 848.883 | .000 | .796 |
| | Moral_Responsibility | 2512.333 | 1 | 2512.333 | 2212.270 | .000 | .910 |
| Q10 | Legal_Responsibility | 5.345 | 3 | 1.782 | 1.528 | .208 | .021 |
| | Criminal_Intention | 1.640 | 3 | .547 | .513 | .674 | .007 |

**Tests of Between-Subjects Effects**

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| Corrected Model | Legal_Responsibility | 5.345[a] | 3 | 1.782 | 1.528 | .208 | .021 |
| | Criminal_Intention | 1.640[b] | 3 | .547 | .513 | .674 | .007 |
| | Moral_Responsibility | 7.603[c] | 3 | 2.534 | 2.232 | .085 | .030 |
| Intercept | Legal_Responsibility | 2383.177 | 1 | 2383.177 | 2043.761 | .000 | .904 |
| | Criminal_Intention | 904.519 | 1 | 904.519 | 848.883 | .000 | .796 |
| | Moral_Responsibility | 2512.333 | 1 | 2512.333 | 2212.270 | .000 | .910 |
| Q10 | Legal_Responsibility | 5.345 | 3 | 1.782 | 1.528 | .208 | .021 |
| | Criminal_Intention | 1.640 | 3 | .547 | .513 | .674 | .007 |
| | Moral_Responsibility | 7.603 | 3 | 2.534 | 2.232 | .085 | .030 |
| Error | Legal_Responsibility | 254.204 | 218 | 1.166 | | | |
| | Criminal_Intention | 232.288 | 218 | 1.066 | | | |
| | Moral_Responsibility | 247.569 | 218 | 1.136 | | | |
| Total | Legal_Responsibility | 2660.000 | 222 | | | | |
| | Criminal_Intention | 1138.000 | 222 | | | | |
| | Moral_Responsibility | 2762.000 | 222 | | | | |
| Corrected Total | Legal_Responsibility | 259.550 | 221 | | | | |
| | Criminal_Intention | 233.928 | 221 | | | | |
| | Moral_Responsibility | 255.171 | 221 | | | | |

a. R Squared = .021 (Adjusted R Squared = .007)

b. R Squared = .007 (Adjusted R Squared = -.007)

c. R Squared = .030 (Adjusted R Squared = .016)

## Post Hoc Tests

## To continue, please select the colour red below

**Multiple Comparisons**

Tukey HSD

| Dependent Variable | (I) To continue, please select the colour red below | (J) To continue, please select the colour red below | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval Lower Bound | 95% Confidence Interval Upper Bound |
|---|---|---|---|---|---|---|---|
| Legal_Responsibility | Red | Yellow | .05 | .211 | .994 | -.49 | .60 |
| | | Blue | -.16 | .203 | .864 | -.68 | .37 |
| | | Purple | -.35 | .207 | .336 | -.88 | .19 |
| | Yellow | Red | -.05 | .211 | .994 | -.60 | .49 |
| | | Blue | -.21 | .204 | .725 | -.74 | .32 |
| | | Purple | -.40 | .208 | .216 | -.94 | .14 |
| | Blue | Red | .16 | .203 | .864 | -.37 | .68 |
| | | Yellow | .21 | .204 | .725 | -.32 | .74 |
| | | Purple | -.19 | .200 | .777 | -.71 | .33 |
| | Purple | Red | .35 | .207 | .336 | -.19 | .88 |
| | | Yellow | .40 | .208 | .216 | -.14 | .94 |
| | | Blue | .19 | .200 | .777 | -.33 | .71 |
| Criminal_Intention | Red | Yellow | .11 | .201 | .944 | -.41 | .63 |
| | | Blue | .23 | .194 | .626 | -.27 | .73 |
| | | Purple | .17 | .198 | .829 | -.34 | .68 |
| | Yellow | Red | -.11 | .201 | .944 | -.63 | .41 |
| | | Blue | .12 | .195 | .926 | -.38 | .62 |
| | | Purple | .06 | .199 | .992 | -.46 | .57 |
| | Blue | Red | -.23 | .194 | .626 | -.73 | .27 |
| | | Yellow | -.12 | .195 | .926 | -.62 | .38 |
| | | Purple | -.06 | .191 | .987 | -.56 | .43 |
| | Purple | Red | -.17 | .198 | .829 | -.68 | .34 |
| | | Yellow | -.06 | .199 | .992 | -.57 | .46 |
| | | Blue | .06 | .191 | .987 | -.43 | .56 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Yellow | -.12 | .195 | .926 | -.62 | .38 |
| | | Purple | -.06 | .191 | .987 | -.56 | .43 |
| | Purple | Red | -.17 | .198 | .829 | -.68 | .34 |
| | | Yellow | -.06 | .199 | .992 | -.57 | .46 |
| | | Blue | .06 | .191 | .987 | -.43 | .56 |
| Moral_Responsibility | Red | Yellow | -.10 | .208 | .959 | -.64 | .43 |
| | | Blue | .35 | .200 | .302 | -.17 | .87 |
| | | Purple | -.07 | .204 | .988 | -.60 | .46 |
| | Yellow | Red | .10 | .208 | .959 | -.43 | .64 |
| | | Blue | .45 | .201 | .112 | -.07 | .97 |
| | | Purple | .04 | .205 | .998 | -.49 | .57 |
| | Blue | Red | -.35 | .200 | .302 | -.87 | .17 |
| | | Yellow | -.45 | .201 | .112 | -.97 | .07 |
| | | Purple | -.42 | .197 | .152 | -.93 | .09 |
| | Purple | Red | .07 | .204 | .988 | -.46 | .60 |
| | | Yellow | -.04 | .205 | .998 | -.57 | .49 |
| | | Blue | .42 | .197 | .152 | -.09 | .93 |

Based on observed means.
The error term is Mean Square(Error) = 1.136.

## Homogeneous Subsets

**Legal_Responsibility**

Tukey HSD[a,b,c]

| To continue, please select the colour red below | N | Subset 1 |
|---|---|---|
| Yellow | 52 | 3.12 |
| Red | 53 | 3.17 |
| Blue | 61 | 3.33 |
| Purple | 56 | 3.52 |
| Sig. | | .207 |

Means for groups in homogeneous subsets are displayed.
Based on observed means.
The error term is Mean Square(Error) =

**Criminal_Intention**

Tukey HSD[a,b,c]

| To continue, please select the colour red below | N | Subset 1 |
|---|---|---|
| Blue | 61 | 1.92 |
| Purple | 56 | 1.98 |
| Yellow | 52 | 2.04 |
| Red | 53 | 2.15 |
| Sig. | | .636 |

Means for groups in homogeneous subsets are displayed.
Based on observed means.
The error term is Mean Square(Error) = 1.066.

a. Uses Harmonic Mean Sample Size = 55.287.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

**Moral_Responsibility**

Tukey HSD[a,b,c]

| To continue, please select the colour red below | N | Subset 1 |
|---|---|---|
| Blue | 61 | 3.07 |
| Red | 53 | 3.42 |
| Purple | 56 | 3.48 |
| Yellow | 52 | 3.52 |
| Sig. | | .116 |

Means for groups in homogeneous subsets are displayed.
Based on observed means.
The error term is Mean Square(Error) = 1.136.

D. Multiple Regression to predict sentence length from participants openness, awareness, and level of contact with autism

## Regression

### Descriptive Statistics

| | Mean | Std. Deviation | N |
|---|---|---|---|
| On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | 1.29 | 3.384 | 194 |
| Openness_Total | 23.2474 | 2.98886 | 194 |
| Contact_Total | 7.6856 | 3.27640 | 194 |
| Awareness_Total | 26.0825 | 6.33466 | 194 |

### Correlations

| | | On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | Openness_Total | Contact_Total | Awareness_Total |
|---|---|---|---|---|---|
| Pearson Correlation | On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | 1.000 | -.090 | -.064 | .220 |
| | Openness_Total | -.090 | 1.000 | .070 | .047 |
| | Contact_Total | -.064 | .070 | 1.000 | -.090 |
| | Awareness_Total | .220 | .047 | -.090 | 1.000 |
| Sig. (1-tailed) | On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | . | .106 | .188 | .001 |
| | Openness_Total | .106 | . | .165 | .260 |

| | | | | | |
|---|---|---|---|---|---|
| | Openness_Total | .106 | . | .165 | .260 |
| | Contact_Total | .188 | .165 | . | .107 |
| | Awareness_Total | .001 | .260 | .107 | . |
| N | On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | 194 | 194 | 194 | 194 |
| | Openness_Total | 194 | 194 | 194 | 194 |
| | Contact_Total | 194 | 194 | 194 | 194 |
| | Awareness_Total | 194 | 194 | 194 | 194 |

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Awareness_Total, Openness_Total, Contact_Total[b] | . | Enter |

a. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

b. All requested variables entered.

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .245[a] | .060 | .045 | 3.307 | .702 |

a. Predictors: (Constant), Awareness_Total, Openness_Total, Contact_Total

b. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 132.619 | 3 | 44.206 | 4.043 | .008[b] |
| | Residual | 2077.660 | 190 | 10.935 | | |
| | Total | 2210.279 | 193 | | | |

a. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

b. Predictors: (Constant), Awareness_Total, Openness_Total, Contact_Total

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| 1 | (Constant) | 1.071 | 2.133 | | .502 | .616 | -3.136 | 5.279 | | | | | |
| | Openness_Total | -.111 | .080 | -.098 | -1.383 | .168 | -.268 | .047 | -.090 | -.100 | -.097 | .992 | 1.008 |
| | Contact_Total | -.039 | .073 | -.037 | -.527 | .599 | -.183 | .106 | -.064 | -.038 | -.037 | .986 | 1.014 |
| | Awareness_Total | .118 | .038 | .222 | 3.133 | .002 | .044 | .193 | .220 | .222 | .220 | .989 | 1.011 |

a. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

**Collinearity Diagnostics[a]**

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | | |
|---|---|---|---|---|---|---|---|
| | | | | (Constant) | Openness_Total | Contact_Total | Awareness_Total |
| 1 | 1 | 3.827 | 1.000 | .00 | .00 | .01 | .00 |
| | 2 | .129 | 5.440 | .00 | .00 | .86 | .08 |
| | 3 | .036 | 10.297 | .04 | .13 | .12 | .84 |
| | 4 | .008 | 22.491 | .95 | .86 | .01 | .08 |

a. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

**Casewise Diagnostics[a]**

| Case Number | Std. Residual | On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to? | Predicted Value | Residual |
|---|---|---|---|---|
| 3 | 6.961 | 25 | 1.98 | 23.018 |
| 4 | 5.794 | 20 | .84 | 19.158 |
| 6 | 7.518 | 26 | 1.14 | 24.860 |

a. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

**Residuals Statistics[a]**

| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | -.54 | 4.37 | 1.29 | .829 | 194 |
| Std. Predicted Value | -2.204 | 3.719 | .000 | 1.000 | 194 |
| Standard Error of Predicted Value | .242 | 1.358 | .445 | .167 | 194 |
| Adjusted Predicted Value | -.62 | 4.28 | 1.28 | .813 | 194 |
| Residual | -2.764 | 24.860 | .000 | 3.281 | 194 |
| Std. Residual | -.836 | 7.518 | .000 | .992 | 194 |
| Stud. Residual | -.854 | 7.541 | .002 | 1.004 | 194 |
| Deleted Residual | -2.883 | 25.013 | .012 | 3.359 | 194 |
| Stud. Deleted Residual | -.853 | 8.985 | .019 | 1.122 | 194 |
| Mahal. Distance | .042 | 31.573 | 2.985 | 3.934 | 194 |
| Cook's Distance | .000 | .356 | .006 | .033 | 194 |
| Centered Leverage Value | .000 | .164 | .015 | .020 | 194 |

a. Dependent Variable: On the assumption that Mr Murphy is found guilty, how many years should he be sentenced to?

# Appendix R

## IMH Research Conference Poster

# Jury Decision Making in Cases with Autistic Defendants: The Impact of Expert Psychiatric Testimony and Intermediaries on Perceptions of Credibility and Responsibility

**Kirsty Osborn**
Research Supervisor: Dr Simon Duff

University of Nottingham
UK | CHINA | MALAYSIA

### INTRODUCTION

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder characterised by impairments in social communication and interaction, and restricted and repetitive behaviours and interests (American Psychiatric Association, 2013).

Deficits in social functioning may place individuals with ASD at an increased risk of contact with the Criminal Justice System (CJS) as a suspect, witness, or victim to crime (Farley et al., 2018).

Legal decision-makers appear unsure of the forensic significance of ASD, or how to effectively utilise diagnostic information to inform their decision making (Allely & Cooper, 2017; Berryessa, 2021).

Several support measures, broadly referred to as 'special measures' are available under Part II of the Youth and Criminal Justice Evidence Act (YCEA, 1999) in England and Wales. However, there is a lack of provision for defendants.

### HYPOTHESES

This study aims to explore whether the presence of an intermediary, and expert psychiatric testimony, influences jury decision making and attributions of credibility and responsibility within a stalking case.

**Hypothesis 1:** Providing expert evidence on ASD will result in lower levels of defendant guilt, sentence length, and attributions of criminal intent, moral responsibility, and legal responsibility.

**Hypothesis 2-** The presence of an Intermediary will result in diminished attributions of guilt, sentence length, and criminal intent, moral responsibility, and legal responsibility.

**Hypothesis 3-** Greater openness, awareness, and level of contact with those with autism will result in lower levels of defendant guilt and sentence lengths.

### METHODOLOGY

This study utilised an opportunity sample consisting of jury-eligible participants from the general population aged 18 and over. Participants were asked to complete an online survey. Participants first completed three attitudinal measures:

**Autism Openness Scale** (Nevill & White, 2011)
**Autism Awareness Survey** (AAS, Tipton & Blacher, 2014)
**Level of Contact Report** (LCR, Gardiner & Larocci, 2014)

Participants were quasi-randomised to one of four experimental conditions: (1) Expert Evidence and Intermediary present, (2) Expert Evidence and no Intermediary present, (3) No Expert Evidence or Intermediary present and finally, (4) No expert Evidence but intermediary present. Respondents then read a stalking case vignette, court-summary and cross examination. Participants returned judgements of guilt and attributions on the defendant, his condition, dangerousness, legal consequences, and legal and moral responsibility.

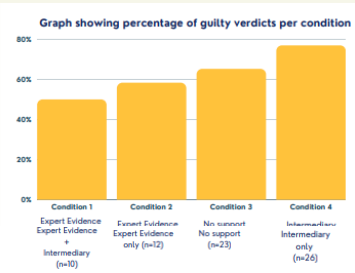
### PRELIMINARY ANALYSES

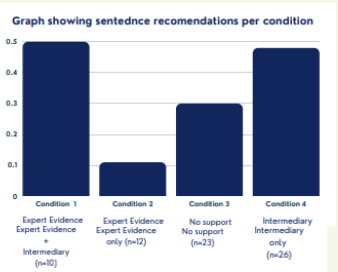
Preliminary findings suggest that providing expert evidence on ASD results in fewer guilty verdicts, and lower sentence length recommendations, thereby lending **support to hypothesis 1.**

However, the presence of an Intermediary may increase guilty verdicts, and sentence recommendations, thereby **not supporting hypothesis 2.**

Scores on the level of contact with autism scale significantly predicts verdict. However, none of the 3 measures predicts sentence length. This provides **partial support for hypothesis 3.**






**Level of contact with autism significantly predicts verdict but not sentence.**




**Find the defendant guilty**



**Mean Prison Sentence = 4 months**

### DISCUSSION

Preliminary findings support previous research suggesting that providing jurors with additional information regarding an individual's diagnosis may help to address unfair biases regarding credibility and responsibility (e.g. Sasson & Morrison, 2019; Sturges & Nuñez, 2021). This may be explained by the **patronization effect** (Gibbons et al, 1979). However, the presence of an intermediary may serve to bias jury perceptions. This is in keeping with previous findings (O'Mahoney, 2010). Within the context of **Expectations-Violations Theory** (Burgoon & Hale, 1988), failure to acknowledge the role of an intermediary in a defendant's improved communication, may result in jurors questioning the defendant's disability and overall credibility.

**Limitations**

- Jury Simulation Research- Validity and Reliability Concerns
- Extent to which findings can be generalised to the behaviour and decision-making processes of real-life jurors questioned.
- Lack of deliberation and consequentiality.
- Greater diversity of participants needed- Gender, Ethnicity.

**Implications**

- This research can be used to inform/educate criminal justice professionals who work with autistic defendants to ensure fair access to trial.
- It may also contribute towards the development and implementation of specially designed training programmes for criminal justice professionals.

**Future Directions**

- More research into the role of intermediaries is needed- more extensive, detailed instructions may be required from the judge regarding the role of an intermediary.
- Use of real life criminal cases in addition to vignettes.

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# Appendix S
# Consent Form

**CONSENT FORM**

This form asks for consent for the information gathered within psychology sessions and from clinical files to be used to prepare a Case Study for academic purposes.

**I understand that:**

1. Kirsty Osborn is a Forensic Psychologist in Training, who is supervised by Sharon Woghiren at Bethlem Royal Hospital, and also at the University of Nottingham.

2. Information gathered within my psychology sessions and from clinical files will be used to prepare a Case Study for academic purposes.

This Case Study will be read by Kirsty Osborn's supervisors at Bethlem Royal Hospital and at the University, but it will not contain any personal information that identifies me (such as my name or date of birth).

3. If I decide to agree to Kirsty Osborn preparing a Case Study, I can withdraw my consent prior to its completion, without giving a reason. This will not affect my assessment or my treatment in any way.

I have read and understand the information above. I have had the opportunity to think about the information and ask questions, which have been answered to my satisfaction. I now consent for the information gathered within psychology sessions and from clinical files to be used to prepare a Case Study for academic purposes.

**Print name:** [redacted] **Date:** 13/6/22

**Signed:** [redacted]

**In the presence of:** [redacted] **Signed:** [redacted]

**Case Study Publications in Academic Journals**

A Case Study can sometimes be published in an academic journal, if it does not contain any personal information (such as patient names or dates of birth).

I agree that I consent to Kirsty Osborn's Case Study being published in a journal, and that direct quotes that I have said may be used in the journal as long as any personal information has been changed to protect my identity and to preserve confidentiality.

**I AGREE / I DO NOT AGREE** (*please circle*)

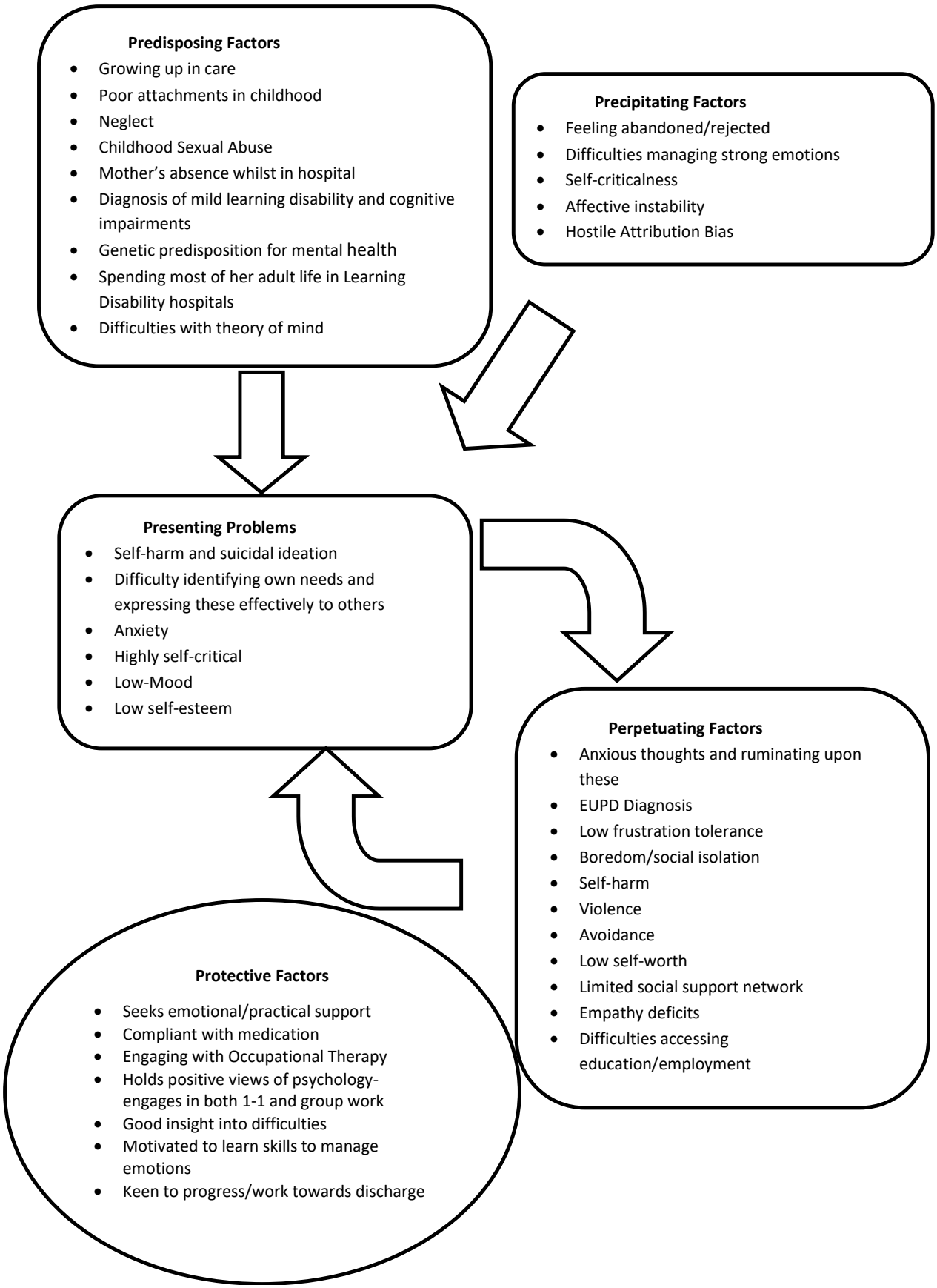
**Print name:** [redacted] **Date:** 13/6/22

**Signed:** [redacted]

**In the presence of:** [redacted] **Signed:** [redacted]

# Appendix T

## Ms Z Diagrammatic Formulation



**Appendix U**

**Ms Z's Positive Behavioural Support Plan**

## My Difficult Situations…

**Being away from my family**



**Being in hospital**




**Not having my belongings**



**Being on section**



**Being on 1-1**



**Being in an empty room**

**Thinking people are talking about me**



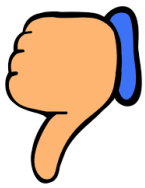
**Self-harm**



**Not sleeping well**



**Being bored**



**Feeling confused following meetings**



# How these difficult situations make me feel..

1. **Angry** 

- **Sad** 

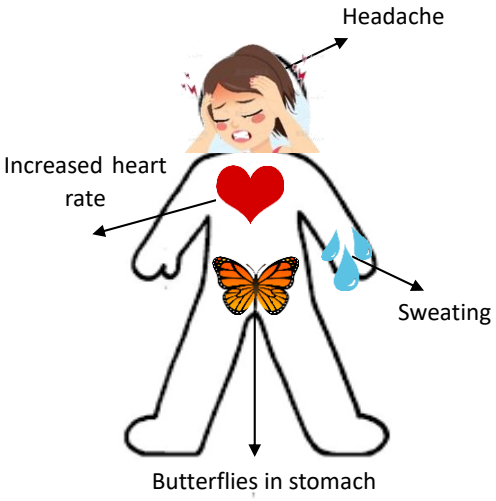
- **Stressed** 

- **Bored** 

# Stage 1: Warning signs of my challenging behavior…

- **How my body responds…**

This is how my body feels…




- **What other people might notice**

Other people might also notice that I…

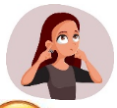
1. Have an angry look on my face 
2. Pace up and down 
3. Ignore others when they talk to me 
4. Start shouting 
5. Self-harm 
6. Start swearing 


- **Things I can do…**
  - Listen to my MP3 Player 
  - Speak to staff 
  - Lay down 
  - Go for a walk 
  - Do my breathing exercises 
  - Remember my safe place – church 

- **How others can help me at this time….**
  - Ask me if I would like to talk about what is upsetting me 
  - Play with my ha 
  - Use my mood cards 
  - Have a hot chocolate with me 
  - Give me an ice-pacl 
  - Encourage me to practice my breathing exercises 

- **What I might notice…**

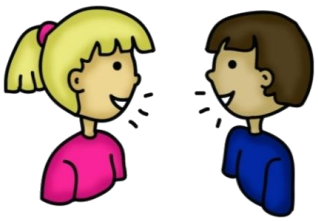
1. Increased heart rate 
2. Feeling sweaty in my face and hands 
3. Pacing up and down 
4. Swearing 
5. Screwed up face 

- **What other people might notice…**
  - Shout and swear 
  - Crying 
  - Sweaty 
  - Difficulties concentrating 
  - Not listening 
  - Being rude 
  - Attempting to hit others 

- **What I can do at this time…**
  - Talk to staff 
  - Listen to music 
  - Shout into pillow 
  - Ice-pack 
  - Stress-ball 
  - Go for a walk 
  - Practice my breathing exercises 

- **How others can help me at this time….**
  - Talk to me positively about the future 
  - Play with my h 
  - Don’t overcrowd m 
  - Don’t shout at m 
  - Avoid mentioning seclusion* (unless to protect myself/others) 
  - Avoid taking my belongings 

**Stage 3: When I am feeling calmer I can…**



- Speak to staff about how I am feeling




- Apologise for my behaviour



- Think about what triggered the behaviour- what could I do differently next time?



- Tell myself I can be calmer next time




- Acknowledge what I did well

**Appendix V**

**Ms Z Bespoke Mood Cards**



Self-Harm

## SELF-HARM

ASK YOURSELF:

- What is causing this feeling?
- What can you do differently?

*(Speak to staff, play with hair, stress ball, ice-pack)*

AFFIRMATION:

You will be alright. This feeling will pass.



# Suicide

## SUICIDE

ASK YOURSELF:

- What is causing this feeling?
- What can you do differently?

*(Play with my hair, walk in the garden, listen to ABBA music)*

AFFIRMATION:

It will be okay. This will be alright.




# HEARING VOICES

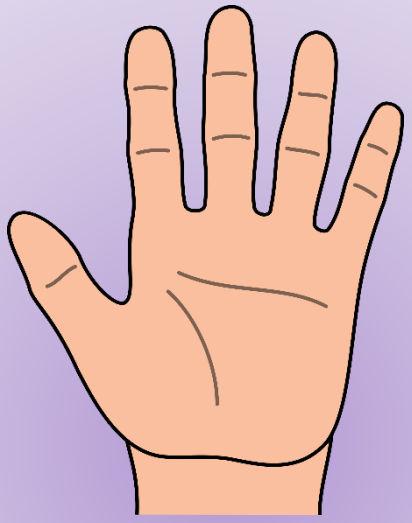
## ASK YOURSELF:

- What is causing this feeling?
- What can you do differently?

*(Play with my hair, walk in the garden, listen to ABBA music)*

## AFFIRMATION:

Calm down. You will be okay.



Hurting Others

# HURTING OTHERS

ASK YOURSELF:

- What is causing this feeling?
- What can you do differently?

*(Speak to staff, listen to music, walk in garden)*

AFFIRMATION:

Think about the future.