

The impact of Implicit Theories on Attitudes and Responses to Individuals with Sexual Convictions

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Abstract

Background: Beliefs about the fixed or malleable nature of human attributes (implicit theories) can influence how one responds to others. Therefore, implicit theories are an important area for empirical inquiry. As individuals who sexually offend represent a highly stigmatised group who cause significant harm but are often deemed unchangeable, understanding how implicit theories (or beliefs about change) may influence attitudes and responses to individuals with sexual convictions is a particular area of interest. Encouraging the possibility of change is crucial in producing good outcomes for people who commit sexual offences and therefore reducing recidivism. However, research examining how beliefs about change may impact those who sexually offend is lacking. Very few studies have examined professionals' implicit theories in particular which may have important clinical implications for working with individuals with sexual convictions.

Aims: This thesis aims to review the literature in relation to implicit theories and responses to those with criminal convictions more broadly, before exploring the nature of implicit theories amongst a range of professionals working in forensic mental healthcare settings and their impact on attitudes towards individuals with sexual convictions and risk management judgements.

Method: To achieve these aims, three methodological approaches were utilised. The relationship between implicit theories and responses to individuals with criminal convictions more generally was explored by conducting a systematic review. Two quantitative empirical research studies were conducted to explore the nature of implicit theories amongst professionals in forensic mental healthcare settings and their impact upon attitudes towards individuals with sexual convictions and clinically relevant risk management judgements. The primary study involved administering and analysing a battery of self-report questionnaires, whilst the second involved analysing responses to hypothetical sexual offence scenarios. Finally, the psychometric properties of the attitudinal measure administered in the empirical research studies was critiqued so that accurate conclusions about attitudes and associated factors (i.e., implicit theories) can be drawn, to inform clinical practice.

Key findings: Incremental theories (or growth mindsets) tend to promote more positive attitudes, less punitiveness and more support for rehabilitation strategies for individuals with criminal convictions. Professionals are more likely to hold growth mindset than fixed mindsets, particularly when in more treatment-oriented roles. Professionals exhibiting growth mindset display more positive attitudes towards individuals with sexual convictions and respond more favourably with regards to risk management decisions. Implications for clinical practice include promoting growth mindsets through supervision and mindset-enhanced training.

Conclusions: This thesis has demonstrated that professionals' beliefs about change have important implications for working with individuals with sexual convictions and subsequently their successful rehabilitation. Evidence suggests that incremental theories or growth mindsets lead to more positive attitudes and favourable responses to individuals who sexually offend, which in turn is likely to have a positive impact on outcomes. This thesis has opened new avenues for improving attitudinal and behavioural responses of a range of professionals working in forensic mental healthcare settings towards individuals with sexual convictions; through promoting growth mindsets.

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CHAPTER ONE

Introduction to thesis

Sexual crime: A public health issue

The World Health Organisation (WHO) has identified sexual crime as a global public health issue (WHO, 2020). The Crime Survey for England and Wales (CSEW) estimates that 1 in 4 women, 1 in 18 men and 1 in 6 children are raped, sexually assaulted or sexually abused (Office for National Statistics; ONS, 2022). In March 2022, an estimated 1.1 million adults (age 16+) were victims of sexual crime, equating to a prevalence rate of approximately 2.3%. Since March 2014, the prevalence of sexual assault has risen as well as police recorded offences. The ONS (2022b) have reported that for the year ending March 2022, police reported crimes increased 31%. Although well below the number of victims estimated by the survey, more victims appear to be coming forward and reporting sexual crime. Nevertheless, many cases are not reported due to fear of embarrassment, humiliation and not believing the police can help (ONS, 2021), and cases that do make it to trial mark the start of a retraumatising process for survivors. With a crown court backlog at a record high, there has been a 29% increase in sexual assault cases waiting to go to trial over the last year, with a 2-year average waiting time (Rape Crisis England & Wales, 2023). Alongside the physical and psychological injury trauma survivors are left with resulting from their victimisation, they also endure further retraumatisation in the hope of receiving justice. Sexual crime causes severe harm and has life changing and irreparable after-effects for victims, families and society as a whole (Basile et al., 2021). Due to the devastating impact of sexual crime, preventing further harm to our society is a key area of public and scholarly interest.

Desistance from sexual crime

The successful rehabilitation of individuals who sexually offend (ISOs), and therefore the protection of the public, depends on whether the individual has the necessary tools and opportunities to desist from crime. Within the desistance literature several influencing factors have been identified including *education* to secure good paying jobs with a level of status; *work and job stability* where individuals can be around conventional others and must exercise a form of social control; *cognitive transformation* in which a new prosocial self-identity is

developed; and '*knifing off*' which involves cutting bonds with one's criminal past, including stigmatising labels (Ward & Laws, 2010). Strength-oriented rehabilitation frameworks like the Good Lives Model (GLM; Ward & Stewart, 2003) place emphasis on equipping individuals with the skills and resources to achieve the things that are personally meaningful to them without offending. The GLM posits that as human beings we all strive to achieve primary goods like establishing fulfilling relationships, feeling connected to a community, having autonomy, power and mastery experiences (to name a few) and that some people attempt to acquire these goods through offending behaviour (Ward & Stewart, 2003). As such, ISOs represent people who have made bad choices in meeting their human needs which have caused unacceptable and irreparable harm to others. Ward and Laws (2010) suggest by viewing ISOs *as people* like us and relating to them as such, rehabilitative outcomes may improve, and recidivism may reduce.

Harmful social narratives

For ISOs, desistance depends on both the administration of successful risk-targeted treatment (i.e., criminogenic needs and acquiring goods) and community acceptance. Therefore, desistance depends not only on the offender's motivation, desire and actions toward change, but on the efficacy of the surrounding systems to support the individual towards change. This means the wider community, the criminal justice system and service providers have significant influence on the rehabilitation of ISOs and their successful reintegration back into society which can be threatened by pervasive and unhelpful social narratives of sexual crime. Sensationalised media coverage focused on extreme and high-profile cases of sexual violence has led to the construction of a biased social narrative about sexual crime. Individuals with sexual convictions are often portrayed and perceived as a homogenous group of "predatory", "dirty old men" who are opportunistic strangers and unchangeable (Cromer & Goldsmith, 2010; DiBennardo, 2018). Perceptions of ISOs are often contrary to empirical data; for example, victims are more likely to be sexually assaulted by someone they know such as a partner/ex-partner, family member or acquaintance (ONS, 2021). It is these misinformed social narratives that elicit fear and public panic, creating a negative social environment that neither addresses offending behaviour nor protects future victims (Douglass

et al., 2022). Instead, these narratives lead to stereotyping and stigmatising attitudes which can leave ISOs feeling ashamed, lonely, and hopelessness (Robbers 2009; Tewksbury, 2012). Furthermore, these attitudes may reflect society's unwillingness to provide services for ISOs and accept them into the community (Brown, 1999) placing them in a position where they struggle to achieve primary needs such as stable accommodation and employment (Tewksbury, 2005), important factors associated with desistance (Tewksbury & Lees, 2006). As such, the impact of this societal rejection does not encourage prosocial behaviour and will likely have a negative effect on reintegration.

Attitudes

Attitudes towards ISOs have been a popular topic of research for some time. An attitude can be defined as a "*psychological tendency that is expressed by evaluating a particularly entity with some degree of favour or unfavour*" (Eagly & Chaiken, 1993, p. 1). Breckler (1984) has suggested attitudes are comprised of three distinct components; '*cognition*' referring to the beliefs one may hold toward an attitudinal target, '*affect*' which relates to how one may feel towards an attitudinal target, and '*behaviour*' which refers to how someone may respond to an attitudinal target. This is referred to as the tripartite model of attitudes. Public attitudes towards ISOs are well documented; the public generally hold more negative attitudes towards ISOs than they do towards other types of (non-sexual) offenders (e.g., Griffin & West, 2006), likely for the reasons described above. Upon review of the factors influencing attitudes, the one consistent influencing factor is exposure to ISOs in a professional capacity (e.g., Harper et al., 2017). Professionals working more closely with ISOs tend to display more positive attitudes towards them compared to professionals who do not and the public (Blagden et al., 2016; Hogue, 1993). This suggests that exposure to ISOs over time may improve attitudes towards them. However, as attitudes are generally stable over time (Hogue, 2015) it is likely that individuals with more positive attitudes are drawn to professions in the forensic field.

Research suggests that professionals who hold positive attitudes are likely to engage with ISOs more beneficially (Craig, 2005). A warm and empathic approach towards offenders can support the development of the therapeutic relationship

(Marshall et al., 2006), a critical component for achieving beneficial therapeutic change (Martin, Garske, & Davis, 2000; Ward & Brown, 2004). For ISOs, the belief that the therapist is supportive is positively associated with treatment effectiveness (Beech & Hamilton-Giachritsis, 2005). Moreover, positive attitudes towards ISOs are associated with the belief that ISOs have the ability to change (Blagden et al., 2014; Harper & Bartels, 2018) which aligns with the idea that they are able to desist from crime. As such, it appears important that those working with ISOs hold more positive views towards them as adopting an overall positive and supportive stance towards ISOs is likely to have a positive impact on rehabilitation efforts. Negative attitudes on the other hand, drive preferences for punitive public policies (Willis et al., 2010) and punitiveness can be criminogenic, increasing recidivism rates (Ritchie, 2011). As such, societal negativity does not protect the public, it hinders successful community reintegration. Moreover, negative attitudes amongst professionals can have adverse outcomes for ISOs, leading to higher risk judgements (Browne, 2017; Harper & Hicks, 2022) which could impact upon an individual's ability to achieve primary goods associated with desistance (e.g., employment, accommodation, relationships, connection etc).

Implicit Theories

A common belief about ISOs is that they are resistant to treatment and unable to change their ways (Melvin et al., 2020; Weekes et al., 1995) which alludes to the idea that there may be something inherently fixed about their characteristics. Dweck et al. (1995a) have conceptualised beliefs about whether people are fixed in their ways or can change as 'implicit theories' (ITs) of human attributes. They suggest that people use this framework to make sense of complex human behaviour. Some people hold entity theories (or have fixed mindsets) about the characteristics of others. Those with an entity theory do not think much can be done to change one's characteristics and therefore people cannot change their ways. Conversely, Dweck et al. (1995a) suggest that some people hold incremental theories (or have growth mindsets). Those with a more incremental theory believe that human attributes are malleable, and people can change with time, effort and across different contexts.

Implicit theories are domain specific rather than domain general, meaning that one can hold an incremental theory of intelligence, but an entity theory of morality for example (Dweck, 1995a). However, the relationship between holding an entity theory and negative outcomes appears to apply across domains. Research has demonstrated that compared to those endorsing incremental theories, those endorsing entity theories are more likely to believe in societal stereotypes, make more extreme judgements in the face of limited information, perceive less group variability, and exhibit greater prejudice and more biased patterns of behaviour towards outgroups (Chow, 1996; Hong & Yeung, 1997; Levy et al., 1998). As such, understanding how implicit theories develop and the bearing they may have on the management and rehabilitation of ISOs is an important area for empirical inquiry.

Social Essentialism

Whilst there do not appear to be other models in direct competition with implicit theories, implicit theories may be understood in the context of social essentialism. Social essentialism refers to the assumption that people can be categorised into distinct groups based on socially relevant attributes, and that – akin to entity theories – these attributes are inherent in nature, unchangeable, and so clearly defined that they can explain why groups of people are different from one another (Kraus & Keltner, 2013; Rhodes & Moty 2020). This contrasts with a social constructivist view – more akin to incremental theories – which would suggest that social categories are constructed by external factors, do not share inherent characteristics, and that category membership can shift based on context and over time (Kraus & Keltner, 2013).

Whilst social essentialism can promote more positive feelings towards groups based on characteristics such as sexual orientation (Bogart, Rosa, & Slepian, 2018) and weight (Pearl & Lebowitz, 2014), for other groups, social essentialism can lead to negative stereotyping, prejudice, and discrimination. For example, the essentialism of race and ethnicity has been linked to the acceptance of racial inequalities and social distancing from the racial outgroup (Williams & Eberhardt, 2008), greater anti-immigrant prejudice and more negative attitudes toward integrative services for immigrants (Bastian & Haslam, 2008), and greater

prejudice toward asylum seekers alongside more support for political groups opposing asylum seekers (Pehrson, Brown, & Zagefka, 2009).

With regards to crime, some crimes are more essentialised than others which can impact attitudes towards punishment, rehabilitation, and criminal justice policy. For example, de Vel-Palumbo, Howarth and Brewer (2019) found that compared to other offence categories such as fraud and theft, sexual offences were highly essentialised (low group variability) and this was associated with endorsement of punitive criminal justice policies, irrespective of whether the sex offence was prototypical (contact) or non-prototypical (non-contact). They suggested that people believe more generally that sexual offenders have inherent and stable characteristics and that strict controls are necessary to manage their risk in the community. These beliefs are likely influenced by media representations of sex offenders as predatory 'monsters' who are ultimately unreformable (Pickett, Mancini & Mears, 2013). With regards to ITs, this could also indicate that individuals may hold a more entity-oriented view toward crimes which are more essentialised and a more incremental-oriented view towards crimes which are less essentialised.

Origins and developmental processes

There is evidence to suggest that essentialist beliefs and implicit theories are not something innate that children are born with, rather they are formed as a result of developmental process in early childhood. Children can engage in essentialist thinking from as young as 3 years old (Gelman, 2004). Essentialist beliefs are hypothesised to arise from the child's assumption that adults are correct in the way they speak about categories, and the child's recognition when adults refer to categories of abstract kinds (Rhodes & Moty 2020). Children go on to assume that the generic categories that adults refer to reflect the accurate boundary of that category in their environment, leading to an expectation that category members are fundamentally alike and therefore the properties of a specific kind generalize to other members of the category (Rhodes & Moty 2020). This gives rise to the belief in a category's inductive potential, contributing to the absence of belief about individual variation and subsequently more essentialist representations of broad categories (Rothbart & Taylor, 1992). In addition, both children and adults

demonstrate a bias toward thinking about the intrinsic causes for category-characteristics simply because this is easier to think of, in contrast to more complex external explanations (Cimpian & Salomon, 2014). However, the endorsement of essentialist beliefs specific to social categorisation may be motivated by the basic human desire to be part of a fixed group, of which group membership will provide protection, learning and access to resources, above others who do not belong to that group (Diesendruck, 2020).

Dweck et al. (1995b) suggests that the development of implicit theories are influenced by different socialization regimes, and therefore what the child learns about themselves (i.e., self-schemas) or other people (i.e., person or social schemas) through others. For example, Kamins and Dweck (1999) found that following completing a task inadequately or incompletely, person-oriented feedback (e.g., "I'm very disappointed in you") provided to a child led to the child endorsing a more fixed theory of goodness-badness. In contrast, feedback orienting the child towards future strategies (e.g., "maybe you could think of another way to do it") led to a more malleable theory of goodness-badness. As such, it appears that child-rearing practices characterised by criticism and judgmental parenting may foster the development of fixed theories in children, which is linked to harsher self-judgements and helpless responses (Kamins & Dweck, 1999). Conversely, constructive and mastery oriented child-rearing practices are likely to foster growth mindsets.

The critical part of this discussion is that, it is through ordinary interaction and communication with adults within a child's environment (or microsystem; Bronfenbrenner, 1979) that young children can be introduced to essentialist thinking about social groups and entity/incremental theories regarding the self and others. For children in environments that consistently send messages fostering fixed mindset orientation (e.g., environments characterised by criticism, judgement, abuse and punishment) these messages may become so deeply ingrained that one may develop schemas around the self and others that align with a fixed mindset orientation. When exposed to new information, this information may be organised through these schemas which could lead to cognitive bias stereotyping and prejudicial behaviour.

Contextual influences

The development of a more fixed vs malleable way of thinking is unlikely to be limited to a child's microsystem as described above (i.e., family members). Both the exosystem and the macrosystem (Bronfenbrenner, 1979) can impact upon how these types of beliefs develop. Taking an individual's macrosystem into account (e.g., social norms and culture), research has found cultural variability within the development of essentialist thinking and implicit theories. For example, children from ethnically homogenous and socially conservative backgrounds demonstrate essentialist thinking about race and gender, whereas children from more diverse backgrounds view these groups as flexible and subjective (Rhodes & Gelman, 2009). Stevenson and Stigler (1992) found that school children and parents from East Asian backgrounds demonstrated greater beliefs in the malleability of intelligence and the importance of effort compared to American children and parents who placed a greater emphasis on fixed intelligence and ability (vs effort). These beliefs also influenced achievement; those with malleability beliefs performed better.

Within the exosystem (Bronfenbrenner, 1979), government policies and mass media can spread essentialist narratives about ISOs and may contribute towards ISOs being a highly essentialised group. This not only leads to more punitive judgements but constrains perceptions of an offender's capacity for change and for reintegration (de Vel-Palumbo, et al., 2019). As such, it is unsurprising that individuals go on to believe essentialist (and skewed) narratives about ISOs as homogenous, "dirty old men", who are primarily strangers, sexually frustrated, uneducated, resistant to treatment and mentally ill (Bolen, 2007; Cromer & Goldsmith, 2010, Fuselier et al., 2002; Pickett, et al., 2013; Sanghara & Wilson, 2006).

Other types of person-situation interactions that could impact upon the development of implicit theories towards ISOs may be whether an individual has been or knows a victim of sexual crime. Research has demonstrated that those who have been a victim or know a victim of sexual abuse hold more positive attitudes towards ISOs (Ferguson & Ireland, 2006). As perpetrators of sexual abuse are more likely to be known to the victim than strangers (ONS, 2020; ONS

2022a), it is hypothesised that victims are likely to have more personal knowledge of ISOs and their more positive characteristics, and therefore judge perpetrators in less stereotypical and generalised ways compared to non-victims with no knowledge of what perpetrators are 'really like' (Nelson, Herlihy & Oescher, 2002). As such, an individual's past experiences with a specific perpetrator of sexual abuse may shape whether they view ISOs (more generally) through incremental or entity-oriented structure. It may be that having knowledge of their complete range of characteristics, some of which may contrast essentialist narratives conveyed by the media, could possibly result in these narratives being less influential and lead to more incremental ITs about ISOs.

Within a criminal justice context, further evidence that ITs differ depending on context has been demonstrated by Harper and Bartels (2018) who found that the general public were more likely to hold entity theories of ISOs specifically, compared to entity theories of people in general. Entity ITs were also linked to more negative attitudes towards ISOs.

Changing implicit theories

Kamis and Dweck (1999) comment on how readily children's established patterns can be overridden, suggesting that an individual's IT can change based on the messages one receives about the malleability of human attributes. For example, Blackwell, Trzesniewski and Dweck (2007) found that following the delivery of an 8-week intervention about the plasticity of the brain suggesting intelligence is malleable, school students performed better compared to a control group, with a larger effect for those with a pre-existing fixed beliefs about intelligence. Similarly, Aronson, Fried and Good (2002) demonstrated how encouraging college students to view intelligence as malleable resulted in increased academic engagement and achievement, with a greater effect amongst African American students (compared to white counterparts) who were considered more susceptible to doubting their intelligence due to negative stereotypes. Heslin, Latham and VandeWalle (2005) found that entitists randomly assigned to an intervention aimed at promoting incremental person theories, demonstrated significantly more incremental implicit person theories and maintained this change over 6 weeks. Within the criminal justice field, similarly to Blackwell et al. (2007), McKinsey (2021) demonstrated

that interventions highlighting the impact of trauma on the brain and the changeable nature of human behaviour resulted in increased growth mindsets and more support for alternatives to incarceration for non-violent crimes. The following findings demonstrate that there may be value in promoting growth mindsets to generate improved outcomes for individuals across different domains.

Thesis rationale and aims

The discussion above has highlighted how ITs are an important area for empirical inquiry, as those seeking to assess individuals based on unchanging psychological properties (i.e., those with fixed mindsets) are more prone to stereotyping, (Plaks et al., 2001) and make more extreme judgments of others (Levy et al., 1998). One would imagine that professionals in the forensic field have entered so believing in the possibility of change (and therefore hold growth mindsets) which is central to the successful rehabilitation of offenders (i.e., desistance from crime), however there is limited research in this area in relation to offenders generally and even less so for ISOs. Instilling the possibility of change is of crucial importance in producing good outcomes for ISOs (Blagden et al., 2016) alongside a strong therapeutic alliance and providing opportunities for learning (Marshall et al., 2006). If professionals hold entity theories of people in general or ISOs specifically, this could impact negatively on attitudes and decision-making, hampering rehabilitation efforts altogether. Since there is little evidence to suggest that training can improve attitudes towards (and subsequently outcomes for) ISOs (Craig, 2005; Kjelsberg & Loos, 2008; Simon & Arnaut, 2011) intervention efforts may need to be directed towards factors underpinning attitudes, of which beliefs about change may be one.

This thesis aims to fill a knowledge gap regarding the impact of ITs on attitudes towards ISOs and decision making amongst professionals working in forensic services. Forensic mental health services were a particular area of interest as literature within the attitudinal field tends to reflect professionals based in prison or community settings, or a limited range of professional disciplines in forensic healthcare overseas. Collaboration between professionals from different disciplines (i.e., the multi-disciplinary team; MDT) have the potential to improve

the quality of service user care by including multiple perspectives and areas of expertise (Department of Health, 2007). Therefore, exploring potential factors that impact attitudes and decision-making amongst this group is imperative.

Chapter one has provided an introduction to the research and significant clinical rationale for exploring the impact of ITs on responses to individuals with sexual convictions amongst professionals working in forensic mental healthcare settings.

Chapter two provides a systematic review of ITs and the impact holding an entity or incremental theory of others on responses to individuals with criminal convictions. Due to limited research examining ISOs specifically, the aim was to understand how ITs may impact upon responses to offenders more generally.

Chapter three provides a primary empirical research study examining the proportions of entity and incremental theorists amongst professionals working in forensic settings, alongside the relationship with demographic and person-related factors, and attitudes towards ISOs.

Chapter four builds on the findings presented in chapter three, reporting on a secondary empirical research study examining whether professionals use ITs to organise their thinking when making decisions relevant to their clinical practice such as those related to risk management.

Chapter five acknowledges that attitudes are a difficult concept to quantify, and that the measurement of attitudes has been widely inconsistent. As such, chapter five aims to critically appraise the psychometric properties of the attitudinal measure administered in the primary and secondary empirical studies; the 21-item attitudes towards sex offenders scale (ATS-21; Hogue & Harper, 2019).

Finally, *Chapter six* brings together the findings of each chapter, carefully considering what this means for professionals in forensic practice and future research within the field.

CHAPTER TWO

The role of implicit theories in responses to offenders: A Systematic Review

Abstract

Implicit theories of human attributes, referring to the extent to which people believe characteristics are fixed or malleable, influence how people respond to negative social behaviour. This will have implications for how offenders are treated in the criminal justice system and in society and is therefore an important topic for empirical inquiry. To date there is no systematic review exploring the evidence of this relationship. The current study aims to explore the impact of implicit theories on the development of attitudes, punitiveness and rehabilitative support towards individuals with criminal convictions. Eight electronic databases were searched for both grey and published literature in addition to forward and backward citation chaining. The search generated 2343 articles but only 17 articles were included in the final narrative synthesis after the removal of duplicates and studies that did not meet the inclusion criteria. Results demonstrate that 'incrementalists' or those with 'growth mindsets' responded more favourably towards offenders. Believing that a person's attributes or characteristics are malleable, resulted in more positive attitudes, less punitiveness and more rehabilitative support for offenders. Mediating factors such as internal attributions, offender specific malleability and implicit theory domain highlight the complex nature of implicit theories. However, effect sizes were small therefore the identification of other factors explaining the variance would be conducive to the field. Recommendations for improving rehabilitation and reintegration efforts for offenders are discussed (e.g., the scope for mindset-enhancing interventions) alongside limitations and suggestions for future research.

Introduction

A theoretical framework

Implicit theories (ITs) have been defined as both beliefs about what is true in the world (ontological assumptions) and frameworks that organise and explain the world (narrative representations) (Levy et al., 2006). The early work of George Kelly (1955) and Fritz Heider (1958) has proposed that ITs of human attributes influence the way the self and others are perceived; their primary function being to facilitate the understanding of complex or ambiguous information. Without the background operation of these theories of human attributes, it would be difficult to see how people make sense of the human behaviour they observe (e.g., Molden et al., 2006).

Dweck and colleagues (e.g., Dweck et al., 1995a, 1995b) have focused on static versus dynamic dimensions of ITs. Within their dichotomous model, they proposed that people either hold an *entity* (fixed) theory or an *incremental* (malleable) theory of human attributes. Entity theories refer to the belief that personal characteristics are fixed and there is nothing much that can be done to change them, regardless of one's effort, or motivation towards change. In contrast, incremental theories refer to the belief that personal characteristics are malleable and can be developed with time and effort, varying across contexts.

Dweck et al (1995a) conceptualised the belief in fixed versus malleable attributes as core assumptions in one's world view. However, instead of viewing ITs as firmly determining people's behaviour, they proposed ITs as a framework whereby people foster judgements and reactions which are consistent with that framework. As such, ITs create a framework for processing information, shaping attributions, understanding behaviours, forming inferences, representing social events, and shaping predictions. See Levy et al. (2001) and Plaks et al. (2009) for reviews.

Existing literature

Research on ITs has covered a range of domains, including human nature, personality, morality, intelligence, emotions, and more recently offending. The existing literature has explored the impact of implicit self-theories on outcomes for oneself, whilst also measuring ITs of others and how this may impact how one evaluates other individuals in several ways. The literature also explores ITs amongst children, adolescents, and adults, using both self-report and experimental manipulations as IT measures. Overall, holding either an incremental or entity belief across a range of domains influences the inferences made about the self and others. A summary is provided below. Please note that 'fixed' and 'growth' mindsets are used interchangeably with 'entity' and 'incremental' beliefs, respectively.

Amongst school-age children, adolescents, and university samples, a recent meta-analysis investigating the link between implicit self-theories of intelligence and academic achievement found that students holding an incremental theory of intelligence performed better academically (Costa & Faria, 2018). More favourable outcomes for incrementalist thinking have stretched to other domains where entity beliefs about personal attributes have predicted greater mental distress amongst youth (Schleider et al., 2015) whilst incremental beliefs have predicted less negative emotional experience, more positive emotional expectancies (Burnette et al., 2013) and active coping (Burnette et al., 2020). Implications for other negative mental health outcomes have also been related to holding entity beliefs. Yeager et al. (2014) found that high school students holding fixed beliefs experienced more anxiety and stress and held a more negative view of themselves in response to social rejection compared to those endorsing growth mindsets. Upon follow up, physical health and achievement were lower amongst entitists. This suggests that the way in which one thinks about their own attributes can have important implications for emotional well-being and for academic prospects; that is, the belief that parts of the self can change and develop (incremental thinking) fosters more favourable outcomes.

Alongside self-evaluations, ITs have implications for how we respond to others. Research has demonstrated the role of ITs in stereotype endorsement, prejudice

and bias against others. If one seeks to assess individuals based on unchanging psychological properties (akin to entity theory) they are likely to be more prone to stereotyping (Plaks et al., 2001), believe more strongly in both negative and positive societal stereotypes independent of their experience with the individuals they are assessing (usually the outgroup), and believe to a greater degree that stereotypical traits are innate. In contrast, incrementalists tend to see the causes of group stereotype persistence more in terms of social and environmental factors (Levy et al., 1998).

ITs appear to influence the processes involved in how decisions are reached. Levy et al. (1998) found that compared to incrementalists, entitists make more extreme judgements of others' attributes based on limited information, believe that they received sufficient information to make their judgements, make judgements more quickly and perceive less variability amongst group members. Research has also found entitists exhibit a greater degree of prejudice; that is, a more negative evaluation of a stereotyped outgroup than incrementalists, whilst exhibiting more biased patterns of behaviours towards outgroup members (Chow, 1996; Hong & Yeung, 1997). This suggests that stereotyping occurs not simply because of people's beliefs about a particular group, but because of their broader theory about how human personality works. Conversely, research demonstrates how fostering a growth-mindset can reduce stereotype-threat and the associated negative consequences, leading to better outcomes for marginalised and stereotyped groups (Arson et al., 2002).

Further research investigating biased evaluations as a function of ITs has specifically looked at responses to transgressors and their behaviour. Erdley and Dweck (1993) found that children who were entitists considered a peer's antisocial behaviour to be a result of their underlying stable and deficient traits, which led to ascriptions of less empathy and more punishment for the peer. Even when giving the entitists an opportunity to view the peer's antisocial behaviour due to circumstance, entitist children maintained their global negative trait judgements. More recent research involving adolescent samples revealed that holding an entity view of personality predicted greater hostile attributions when confronted with peer provocations of ambiguous intent (Yeager et al., 2013).

Within adult samples research has found that compared to incrementalists, entity theorists of personality are less forgiving of transgressors (Iwai & De Franca Carvalho, 2020) suggesting that incrementalists are more likely to consider the transgressor more responsible for causing harm. Similarly, Miller et al. (2007) found that entitists showed more negative affect and cognitive evaluations in response to transgressive behaviours. They hypothesised that entitists rely more on dispositional information when assessing behaviour and subsequent negative responses offer an easier alternative than the effortful task of considering situationally relevant information such as psychological mediators and motivators (e.g., goals, desires, emotional states).

Although a large subset of the literature supports the notion that incremental thinking promotes more favourable outcomes, some research has found the reverse. For example, Ng and Tong (2013) found that those holding incrementalist beliefs of personality were less forgiving of a transgressor than entitists, hypothesising that because incrementalists view personality as changeable, they may take the view that an individual can and should change their behaviour to achieve desired outcomes. That is, through ascribing more responsibility as behaviour is seen as changeable, incrementalists may be less forgiving. Within the domain of emotions Cesarano (2018) found that those who regarded emotions as malleable attributed more blame to transgressors for their behaviour than entitists. However, when taught an incremental theory of emotions incrementalist attributed less blame than entitists. A recent article suggests a double-edged sword model of growth mindsets; growth mindsets can be simultaneously harmful (via personal responsibility) and beneficial (via expectations for the potential to manage future problems) particularly within stigma-relevant contexts (Hoyt & Burnette, 2020).

Implications for people with criminal convictions

Research on the impact of ITs has been systematically reviewed in relation to several outcomes including psychological dysfunction and psychological distress (Burnett et al., 2020; Howell, 2017); self-regulation (Burnette et al., 2013); academic achievement (Costa & Faria, 2018); ability in sport, physical activity, and physical education (Vella et al., 2016); and hostile intent attributions (Yeager,

et al., 2013). Research also shows that growth-mindsets can be induced (Heslin et al., 2005) and have better outcomes for marginalised and stereotyped groups (Aronson et al., 2002). An area which is yet to be explored but would benefit from a systematic integration of findings would be the role of ITs in responses to people with criminal convictions.

As discussed, ITs matter when it comes to responses to transgressors. Individuals with criminal convictions can be conceptualised as people who commit a transgression to a degree that one may be considered such a danger to society they require additional monitoring or imprisonment to protect the public. If one's way of thinking can have such an impact upon how others are viewed and treated in relation to cheating/lying (Dweck 1995a), deeply hurting someone (Ng & Tong, 2012) or kicking a wall (Ceserano, 2018), it is likely that this will apply to people with criminal convictions, which has important implications for how such a socially stigmatised group are treated. At a wider societal level, public negative bias against individuals with criminal convictions may impact upon how well they reintegrate into society, particularly if this negative bias impacts upon an offender's ability to secure employment, housing or be accepted as part of the community. Without this, offenders may find it difficult to meet their needs in pro-social ways and desist from crime. On a professional level, ITs may bias professional views, impacting negatively upon decision making. Although professionals' decisions are considered 'evidence-based' (e.g., based on up-to-date empirical research and empirically validated dynamic risk assessments), decision making ultimately requires some element of professional judgement and therefore the potential for bias remains. Simply 'being a professional' with knowledge, experience, and evidenced-based tools does not free one from the automaticity of ITs, which often operate outside one's conscious awareness.

Review question and objectives

As the impact of ITs upon responses to people with criminal convictions is yet to be reviewed using a systematic approach, there appears to be sufficient rationale for synthesis of the literature within this area using rigorous methodology and including the most up-to-date research. The current systematic review aims are

to synthesize and evaluate the existing quantitative evidence to answer two key questions:

- 1) What is the role of ITs in determining responses to people with criminal convictions with respect to general attitudes, punitiveness, and rehabilitative support?

- 2) Does the evidence differ by pertinent variables such as age, sample, IT domain, and offence type?

The review hopes to develop greater insight and understanding of the area, highlighting the potential clinical implications for rehabilitative efforts as well as identifying knowledge gaps, methodological issues, and directions for future research.

Method

Reporting of this systematic review has followed the Preferred Reporting Items for Systematic review and Meta-Analysis (PRISMA) statement (Page et al., 2021).

Search strategy and information sources

The research question was developed through an iterative process and the search strategy involved several steps to ensure adequate specificity and sensitivity in the main search. In the early stages of the review, 'basic' scoping searches were conducted to identify several papers within the area which helped to define the research question. Experts in the field were contacted to confirm the novelty of the review question in relation to pre-existing systematic reviews, and to identify literature that may be relevant to the review. Once the review question was defined, the titles, abstracts, keywords, 'index terms' and subject headings of the literature discovered were examined, and a list of commonly used free-text keywords, subject headings and index terms (e.g., MeSH) were generated and used to build the main search strategy. To ensure no relevant evidence was missed, the search terms were selected to capture a wide range of possible evidence. However, as 'implicit theories' is not a major research area, scoping searches revealed inconsistent indexing of terms. Guidance from an information specialist on the main search strategy was sourced as a result.

The following electronic databases were searched in December 2021 for both published and grey literature: PsycINFO, PsychARTICLES, Scopus, Web of Science, Medline, Embase, Applied Social Science Index and Abstracts (ASSIA) and ProQuest Dissertations & Theses (PQDT). Depending on the database being searched, necessary modifications to the search strategy were made. See Table 1 for an example and Appendix A for all search strategies.

Table 1. Search Strategy: Ovid PsychINFO

1	exp Implicit Attitudes/
2	(implicit adj2 (theor* or attitude* or belief*)).mp.
3	(entit* adj2 (theor* or attitude* or belief*)).mp.
4	(increment* adj2 (theor* or attitude* or belief*)).mp.
5	(incrementalist* or incrementality).mp.
6	(entitist* or entitativity).mp.
7	"fixed mindset".mp.
8	"growth mindset".mp.
9	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8
10	exp sex offenses/
11	exp Criminal Offenders/
12	exp Crime/
13	exp Criminal Behavior/
14	exp child abuse/
15	transgress*.mp.
16	(offend* or offenc* or offens* or assault* or murder* or crime* or criminal* or perpetrator* or violen* or abus* or misconduct* or delinquen* or wrongd*).mp.
17	(sex adj2 (misconduct* or behavior* or behaviour*)).mp.
18	exp Morality/
19	moral*.mp.
20	10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19
21	9 and 20

Prior to initial screening, the results of the searches were imported into Endnote X9.3.1 and duplicates were removed by the programme and manually, using a systematic and rigorous method developed by Bramer et al. (2016) which reduces the error rate and time spent de-duplicating. Due to the inconsistent indexing of terms making a truly comprehensive database search problematic, backward and forward citation chaining was conducted on all retrieved full articles to increase the sensitivity of the search. This involved reviewing the citations (forward) and the references (backward) of all retrieved full articles. This step minimized the chance of missing relevant articles.

Inclusion and exclusion criteria

An adaptation of the PICOS screening and selection tool was used to structure the eligibility criteria (see Appendix B).

Population

The population of interest included individuals above the age of 18. Studies including children and young people (<18) were excluded as it would not be

appropriate to draw conclusions about the impact for rehabilitative efforts for this population, as they would not play a direct role in decision-making for offenders. Studies in which the participant was an offender themselves were excluded for similar reasons; they do not represent the majority when it comes to making decisions that may affect other offenders.

Exposure

The exposure or independent variable was participants' ITs of others, measured using the entitist-incrementalist dichotomy, whether self-reported or experimentally manipulated, and whether existing on a binomial or continuous scale. ITs have also been described synonymously in the literature as fixed/stable mindsets and growth/malleable mindsets. Studies in which participant's ITs were not measured in this way were excluded.

Outcomes

Studies in which participants were asked to assess an 'offender' were included. Three key outcomes were of interest including attitudes, punitiveness, and rehabilitative support. Attitudes were defined as a set of emotions, beliefs and behaviours (affect, cognition, behaviour; Breckler, 1984) that are expressed by "evaluating a particular object with some degree of favour or unfavour" (Eagly & Chaiken, 1993, p.1). Punitiveness was defined as "support for harsher criminal sanctions and crime policies" (Maruna & King, 2009, p.9). This may involve the quantity of people punished, the intensity of punishment and the length of punitive sanction. Rehabilitation support was defined as support for the process of re-educating and retraining those who commit crime to reintegrate back into society. Studies where the individual assessed was not an offender or where participants were asked to make self-judgements were excluded.

Study type

Quantitative studies and the quantitative elements of mixed method studies were included in the review. Studies including solely qualitative data were excluded to

allow for a more concise and consistent synthesis of the data, and due to limited qualitative studies in the research area. Studies published before 1988 were excluded as this date coincides with the seminal work of Dweck and Leggett (1988) around ITs. Studies written in other languages than English were included in the review and were only excluded where the researcher had no viable means of translation. Reviews, editorials, commentaries and opinion papers were also excluded.

Study selection

Initial screening of titles and abstracts to identify articles to be retained for potential relevancy was conducted by one independent researcher. The screening tool was piloted by two researchers on 20% of the full text articles identified as potentially relevant. Researchers reached 87.5% agreement (7 out of 8 articles) and where there was ambiguity about the relevance of 1 article, this was discussed between the two researchers which prompted the tightening of criteria. The remainder of the articles were screened by one researcher. A PRISMA flow diagram (Page et al., 2021) of included and excluded studies and reasons for exclusion is provided below (Figure 1).

Assigning risk of bias and strength of evidence

Although all study types were included in the systematic review, all of the identified studies were cross-sectional in nature. As such, the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies (Moola et al., 2020) was used to assess the risk of bias within the included studies (Appendix C). As the tool is primarily used for medical studies, it was adapted to ensure that it covered all areas of bias relevant to the included studies. This included selection, information, and confounding bias. Quality analysis was conducted after the extraction of data where being blind to study quality reduced bias in extracting results. Studies were not excluded based on quality, rather quality score and information were used to weight the contribution of their results to the synthesis.

Data extraction and synthesis

Data were extracted using a template informed by the eligibility criteria and the literature, including similar systematic reviews in the research area (e.g., Vella et al., 2016). Extracted data included the author, date of publication, country of origin, sample size, population type, participant details, IT measure used, offender type, dependent variables measured (outcomes), publication type, study aims, type of statistical analyses and results. Narrative synthesis was used to synthesise the data by comparing the findings from multiple studies and identifying common themes following the guidelines outlined by Popay et al. (2006). This was to ensure a sufficient level of robustness when bringing together the findings from the set of included studies and drawing conclusions based on the body of evidence which involves a level of integration and interpretation. Due to heterogeneity of the included data, a meta-analysis was not conducted.

Results

Study selection

The electronic database search revealed 2343 articles, of which 1612 were reviewed at the title-abstract screening level and 1571 articles found to contain material that was not relevant to the aims of the review. In total, 41 full text articles were assessed for eligibility against the inclusion criteria revealing 12 relevant citations. Upon backward and forward citation chaining of these 12 articles, 5 additional relevant articles were identified. In total, 17 articles were included in the final narrative synthesis. The outcome of the search process and reasons for exclusion are found in Figure 1.

Characteristics of included studies

A total of 7146 participants contributed to the data. Studies were conducted in various locations, the majority in the U.S (11) and others in the U.K (2), Israel (2), Singapore (1), and Hong Kong (1). Only one study was conducted at a national level, advertising the study to residents of nations in which English was an official language. Most studies used community (13) and/or university (10) samples, with one using a professional sample of lawyers. Mean sample age ranged from 18 to 46 years and females made up a larger proportion of participants in 12 studies. The included studies looked at the effects of a range of IT domains (people, human nature, morality, personality, intelligence, and offenders) on a range of different offender types (general, sexual, violent, white collar and ex-offenders). Table 2 provides an overview of study characteristics.

Figure 1. PRISMA Diagram of Included and Excluded Studies

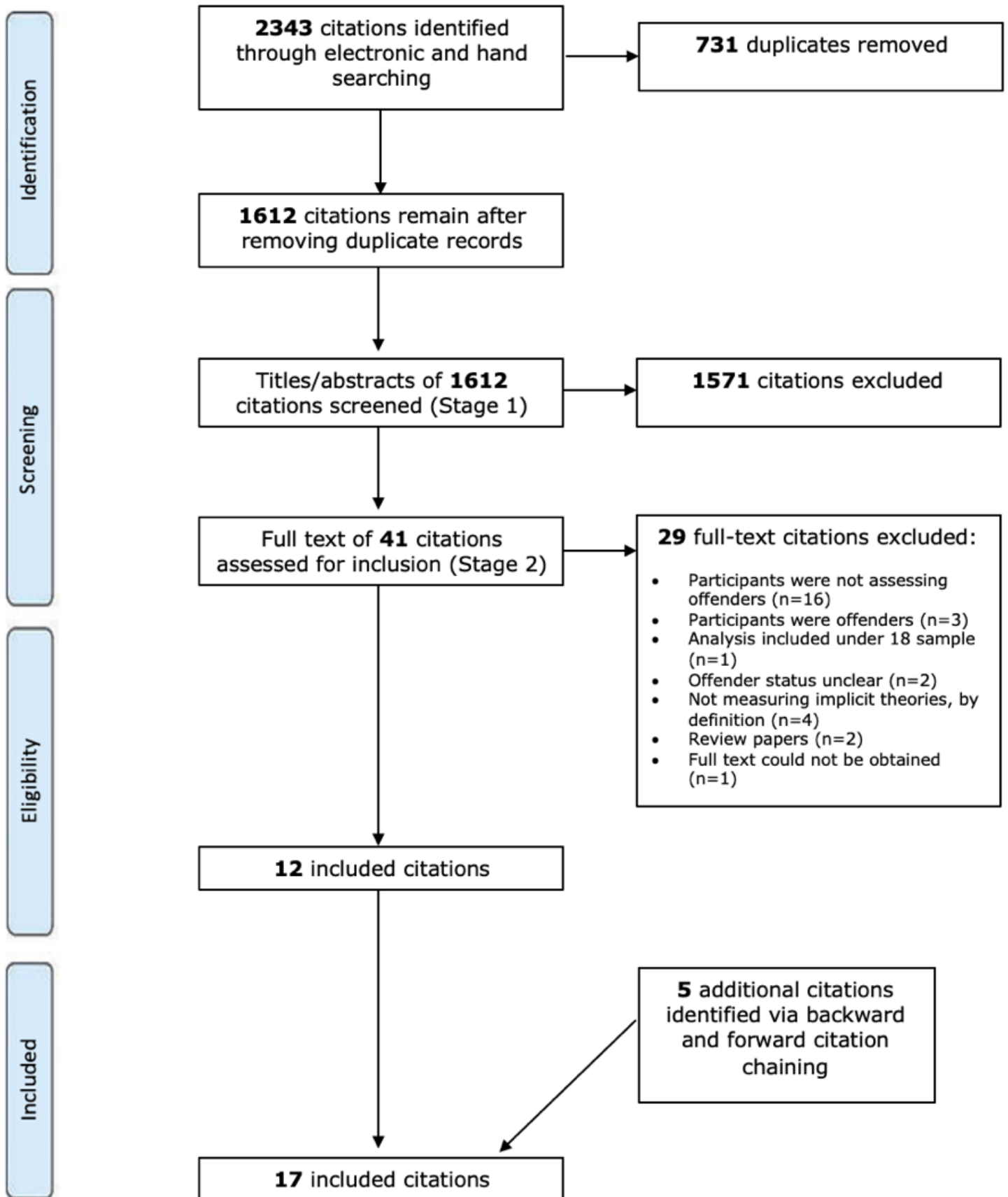


Table 2. *Study and Participant Characteristics*

Author (Year)	Study	Location	Sample N (Population)	% Female	Mean Age (SD)	IT Domain	Offender Type	Publication Type
Evans (2017)	-	U.S.	191 Community	48.69	37.83 (13.22)	Moral Character	Sexual Offender	Dissertation
	a)		87 Undergraduates	42.53				
Gervy et al. (1999)	b)	U.S.	107 Undergraduates	45.79	19.18 (2.32)	Moral Character	Violent Offender (Murder)	Article
	c)		74 Undergraduates	47.30				
Harper & Bartels (2017)	-	U.K.	252 Community	70.24	41.28 (15.25)	Sexual Offending	Sexual Offender	Article
Harper & Bartels (2018)	-	U.K.	252 Community	70.24	41.28 (15.25)	Human Nature & Sexual Offending	Sexual Offender	Article
Lehmann, Pickett & Denver (2020)	-	U.S.	1202 Community	50%	-	Human Attributes	General Offenders	Article
	a)	U.S.	335 Undergraduates	55.50	19.90 (1.47)			
McKinsey (2021)	b)	U.S.	338 Community	50.50	42.95 (11.64)	Person	General Offenders	Article
	a)		205 Community	40.70				
Moss, Lee, Berman & Rung (2019)	b)	National	226 Community	42.20	-	Person Prisoners	General Offender	Article
	c)		238 Community	52.50				
Peleg-Koriat, Weimann-Saks & Halperin (2020)	-	Israel	190 Community	53.16	42.23 (14.86)	"People"	General Offenders	Article
Rade, Desmarais & Burnette (2018a)	-	U.S.	172 Community	43.60	33.09 (11.07)	Human Attributes	Ex-Offender	Article

(continued next page)

Table 2. (continued)

Author (Year)	Study	Location	Sample N (Population)	% Female	Mean Age (SD)	IT Domain	Offender Type	Publication Type
Rade, Desmarais & Burnette (2018b)	a)	U.S.	352 Undergraduates	57.30	19.21 (2.68)	Criminal Behaviour	Ex-offender	Article
	b)	U.S.	500 Community	50.00	35.04 (11.60)	Person		
Schumann (2019)	-	U.S.	720 Community	50.83	46.01 (16.69)	Personality	Sexual Offender	Article
Schweitzer (2013)	-	U.S.	240 Total a) 79 Undergraduates b) 161 Community	-	a) 20.67 (4.47) b) 32.67 (10.54)	Intelligence Morality Personality	Violent Offender (Murder)	MSc Dissertation
Tam et al. (2013)	a)	Hong Kong	101 Undergraduates	54.46	20.67	Moral Character	Criminal Offender	Article
	b)	U.S.	300 Undergraduates	57.33	18.96			
Tan et al., (2016)	-	Singapore	628 Undergraduates	68.00	20.60 (1.90)	"re-offending"	Sexual, white collar and violent offender	Article
Wakai (2020)	b)	U.S.	208 Community	40.38	28.10 (9.60)	Human Attributes	General Offenders	Dissertation
Weimann-Saks et al., (2019)	a)	Israel	180 Law Students	72.77	26.58 (6.84)	"People"	Manslaughter ("Death by driving under the influence") Violent Offender (Aggravated assault)	Article
	b)		110 Lawyers	64.55	36.45 (8.61)	"The defendant"		
Williams (2015)	-	U.S.	190 Community	54.74	38.70 (12.50)	Morality/ Person	General Offender	Dissertation

Quality of Included Studies

Overall, the methodological quality of the included studies varied, with scores ranging from 4 to 7 out of 7 in relation to the number of quality criteria met. The average quality score was 5.8. Five studies fell slightly below the average but were considered to sufficiently add to the literature base and so were included in the final synthesis.

Criteria defined

Twelve out of 17 studies clearly defined the inclusion/exclusion criteria developed prior to recruitment. The remaining 5 failed to define any criteria for the study or state that no criteria were applied. Only 4 studies included attention checks as a pre-requisite to study eligibility. Cross-sectional research often includes self-report measurement scales that are susceptible to careless inattentiveness (Johnson, 2005) leading to insufficient effort responding (IER) which may compromise validity (Huang et al., 2012). This includes participants skipping or misreading items, or responding to items without reading them all together (Kurtz & Parrish, 2001). IER can inflate the strength of observed relationships between variables (Huang et al., 2015). As such, several studies in the review may be subject to this effect.

Study / subject description

Most studies described the study participants and setting in sufficient detail that other researchers would be able to determine if the studies are comparable to their population of interest. For example, most studies reported how participants were selected and recruited, basic demographic information, and where and when the study took place. However, one study failed to detail the gender split, and 2 did not detail the mean age of participants.

Valid / reliable exposure measure

All studies measured the exposure variables in both a valid and reliable way. Included studies either used the original IT measure of moral character by Dweck et al. (1995a) or other validated versions of this scale pertaining to ITs within different domains. Regarding reliability, all but 1 of the included studies reported Cronbach's alpha. Alphas ranged from .74 to .98 indicating 'good' to 'excellent' reliability.

Confounding factors

Confounding factors were identified in 12 of the 17 studies and included typical confounders such as baseline characteristics. All 12 studies dealt with confounders within the analysis, by including them as covariates. In addition, Harper and Bartels (2017, 2018) dealt with potential extraneous culture-based variables in their study design, by ensuring only U.K. based participants took part in the study.

Valid / reliable outcome measure

Regarding the validity and reliability of outcome measures, 7 studies used pre-existing empirically validated scales, such as the Perceptions of Offenders Scale (Harper & Hogue, 2015) and the Attitudes toward Prisoner Re-entry scale (Park, 2010), for example. Cronbach's alpha was reported for all but one of these 7 studies, ranging from .82 to .95 indicating 'very good' to 'excellent' reliability. Eight studies used their own developed scale in relation to their research aims, informed by literature or policy. For example, when investigating barriers to offender re-entry, the outcome question developed by Lehman et al. (2020) "*In your view, when should employers first be allowed to ask about a job applicant's criminal record, or do you think they should never be allowed to ask?*" was based on the Ban-the-Box movement (Jacobs, 2015) which seeks to delay criminal record questions until later in the hiring process. Cronbach's alpha was reported for 6 of these 8 studies and ranged from .61 to .95 indicating 'acceptable' to 'excellent' reliability. For two studies, the reliability and validity of the outcome measure were unclear.

Statistical analysis

Appropriate statistical analysis was used in all studies. Two studies used appropriate post hoc analyses to determine relationships between variables where a significant difference was found. As such, there was no evidence of 'data dredging'. Whilst only one study failed to report effect sizes (Gervey et al., 1999), only 6 out of 17 reported conducting a power analysis, therefore for many studies it was unclear whether sufficient power was achieved for the statistical analyses. As such, the validity of the results should be considered in this context.

Narrative synthesis of results

There appears to be a general pattern across the included studies whereby, compared to holding a fixed mindset, holding a growth mindset (that is, believing people or the characteristics they hold can change) results in more positive attitudes, less punitiveness, and more rehabilitation support for offenders. Sixteen of the 17 included studies found statistically significant results in this direction and findings appear to be consistent across countries, mindset domain and offender type. Table 3 provides an overview of the findings which are discussed further below.

General attitudes

Six of the included studies supported the idea that holding a growth mindset fosters more positive attitudes towards sexual offenders (Schumann, 2013; Harper & Bartels, 2018) ex-offenders (Rade et al., 2018a, 2018b), criminal offenders (Tam et al., 2013) and sexual, white collar and violent offenders (Tan et al., 2016). For papers reporting correlational data (4), effect sizes were relatively small according to recommendations by Cohen (2013), ranging from $r = .09$ to $.29$. Within these studies was Schumann (2013) who concluded that those holding a growth mindset were more likely to believe that public apologies made by sexual predators were sincere and meaningful and that apologisers could redeem themselves. This effect was observed despite the large number of apologies being offered and the scepticism around insincere motivations that

comes with the scripted nature of public apologies (Hornsey et al., 2020). Regarding other stigmatising attitudes, Tan et al. (2016) found that fixed mindsets were a predictor of increased social distance from offenders, whilst Tam et al. (2013) found that the more one held a fixed mindset, the more likely they were to believe that offenders would commit another crime. Similarly, effect sizes were small ($\beta = .10$ and $r = .13$ respectively). Harper and Bartels (2018), however, reported relatively large effect sizes ($d = .90$ and 1.95), concluding that not only do general growth mindsets foster more positive attitudes towards sexual offenders, but the attitudinal difference for growth mindsets of sexual offenders compared to human nature more generally was far greater.

Punitiveness

Ten of the included studies supported the idea that holding a growth mindset leads to less punitive attitudes and decision making for sexual offenders, violent offenders, and offenders more generally. Papers using test of difference (3) reported small effect sizes ($\eta^2 = .02$ to $.04$). For papers reporting correlational data (2), effect sizes ranged from small to moderate ($r = .11$ to $.52$). For example, Tam et al. (2013) found that the more of a fixed mindset people held, the more support they gave for the death penalty ($r = .31$) and the more they believed the goal of punishment was to make criminals pay for their crimes and suffer like the victims suffered ($r = .44$). The effect was smaller when thinking about case specific sentencing ($r = .11$) and case specific punitiveness ($r = .18$). Within the study by Weimann-Saks et al. (2019) and their sample of lawyers, the correlational effect sizes for growth mindsets and less severe adjudication of a defendant were larger when thinking about the malleability of a specific defendant ($r = -.52$) presented in a legal case rather than the malleability of people in general ($r = -.21$). Interestingly, they also found that individuals reported higher levels of malleability for specific cases than offenders in general, and found that case specific malleability mediated the relationship between general malleability and severity assessment. These results could suggest that malleability beliefs about a specific offender have more of an impact on responses than more general malleability beliefs. In addition, people may be more malleable in their mindsets when provided with details and context, essentially humanising the individual; and as a result, evaluators are less punitive.

Table 3. Results of included studies and Quality Score

Author (Year)	Analyses	Results	Quality score (/7)
Evans (2017)	ANOVA	Compared to incrementalists ($M = 3.86$), entitists ($M = 4.50$) recommended harsher legal punishment for the offender ($p = .006$, $\eta^2 = .04$). However, incrementalists and entitists did not differ in their recommendations for punishment ($p = .23$, $\eta^2 = .009$).	6
Gervey et al. (1999)	Logit Regression Analysis	In study b), significantly more entitists than incrementalists considered punishment or retribution as the primary functions of imprisonment (40.7% vs 20.8%, $p < .01$). Significantly more incrementalists than entitists considered rehabilitation (55.8% vs 33.0%, $p < .05$).	4
Harper & Bartels (2017)	ANCOVA	Incrementalists were less punitive in relation to sentencing and risk judgement than entitists ($p = .003$, $\eta^2 = .02$).	7
Harper & Bartels (2018)	Independent t-Test & ANOVA	Incrementalists of human nature reported significantly more positive attitudes towards sexual offenders than entitists ($p < .001$, $d = 0.90$). Incrementalists of sexual offenders reported significantly more positive attitudes towards sexual offenders than entitists ($p < .001$, $d = 1.95$). Incrementalists advocated less punishment-oriented sentences compared to entitists who advocated less rehabilitative sentences ($p < .001$, $\eta^2 = .04$).	7
Lehmann et al. (2020)	Regression	Those who believed in personal malleability were less supportive of criminal record use in employment decisions, on a global ($b = -.104$, $\beta = -.106$, $p < .01$) and case specific level ($b = -.205$, $\beta = -.144$, $p < .001$). The belief that human nature is malleable was a key predictor in global and specific support for criminal record use in employment.	6
McKinsey (2021)	Mediation Analyses	A stronger growth mindset was associated with lower levels of punitiveness [a] $B = -.31$, $p < .001$; [b] $B = -.26$, $p = .005$] and greater support for alternatives to incarceration for non-violent crimes [a] $B = .23$, $p < .001$; [b] $B = .15$, $p < .001$]. Mindset-enhanced trauma education led to greater support for alternative sentencing for violent crimes [b] $B = .38$, $p < .001$] and indirectly resulted in less punitiveness [a] indirect effect = $-.24$, 95% $CI (-.395, -.099)$; [b] indirect effect = $-.19$, 95% $CI (-.335, -.060)$] and greater support for alternatives to incarceration for non-violent crimes [a] indirect effect = $.17$, 95% $CI (.078, .281)$; [b] indirect effect = $.11$, 95% $CI (.050, .184)$], via growth mindsets.	7
Moss et al. (2019)	ANCOVA	In study a) and b), a growth mindset of <i>people in general</i> was not significantly associated with attitudes toward rehabilitation, or punishment ($p > .05$). In study c), a growth mindset of <i>offenders specifically</i> was positively associated with attitudes towards rehabilitation ($\beta = .38$; [$CI = -.26, .50$], $p < .01$), and negatively associated with attitudes towards punishment ($\beta = -.22$; [$CI = -.36, -.08$], $p < .05$).	6
Peleg-Koriat et al. (2020)	ANOVA	Compared to those who were primed to hold fixed beliefs ($M = 2.64$), participants primed to hold malleability beliefs ($M = 3.06$) had more positive attitudes towards rehabilitative and restorative alternatives to incarceration ($p < .01$, $\eta^2 = 0.043$).	6
Rade et al. (2018a)	Correlation	The stronger participants' growth mindset, the more positive attitudes they held towards ex-offenders ($r = .27$, $p < .001$) and the more support they gave for ex-offender re-entry ($r = .32$, $p < .001$).	7

(continued next page)

Table 3. (continued)

Author (Year)	Analyses	Results	Quality score (/7)
Rade et al. (2018b)	Correlation	The stronger participants' <i>general growth mindsets</i> , the more positive were their attitudes towards ex-offenders [a] $r = .18, p < .01$; [b] $r = .29, p < .001$] and the more support they gave for ex-offender re-entry [a] $r = .24, p < .001$; [b] $r = .24, p < .001$]. In the undergraduate sample (a) but not the community sample (b), the stronger participants' <i>growth mindsets of criminal behaviour</i> , the more support they gave for ex-offender re-entry [a] $r = .14, p < .01$; [b] $r = .05, p > .05$]. In the community sample (b) but not the undergraduate sample (a), the stronger participants' <i>growth mindsets of criminal behaviour</i> the more positive were their attitudes towards ex-offenders [b] $r = .15, p < .01$; [a] $r = .09, p > .05$].	7
Schumann (2019)	Linear mixed modelling analyses	Incrementalists reported lower levels of punitiveness ($p < .001$) and more positive general attitudes towards sexual perpetrators ($r = .23, p < .001$) than entitists.	5
Schweitzer (2013)	Logistic Regression	In the <i>combined sample</i> , there was no significant effect of implicit theories of intelligence ($\beta = .11, p = .29$) or personality/morality ($\beta = .07, p = .56$) entity theory ascription on sentence ($R^2 = .02, p = .25$). In the <i>community sample only</i> with post-hoc analyses, incremental theorists of intelligence were more likely to sentence the defendant to death than entity theorists ($R^2 = .03, \beta = .22, p = .04$). Personality/morality entity theory scores were not significant ($R^2 = .02, \beta = .19, p = .17$).	5
Tam et al. (2013)	Correlation	In study a , entity theory was correlated positively with retribution goal ($r = .44, p < .001$) and death penalty support ($r = .31, p < .01$), and negatively with rehabilitation goal ($r = -.22, p < .05$). In study b , entity theory was correlated positively with general punitive attitude (retribution goal + death penalty support; $r = .11, p < .05$) and recidivism expectation ($r = .13, p < .05$). Entity theory was correlated positively with case specific punitiveness ($r = .18, p < .001$) and case specific sentencing ($r = .11, p < .05$). For case specific judgements, the positive correlation between entity theory and recidivism expectation were not statistically significant ($r = .04, p > .05$).	6
Tan et al. (2016)	Multiple Linear Regression	Perceptions of offenders' incapacity to change (akin to entity theory) was a significant independent predictor of stigmatising attitudes towards offenders, more specifically, desire for social distance from offenders ($\beta = .10, p < .001$)	5
Wakai (2020)	Linear Regression	There was no significant association between growth mindset and beliefs in rehabilitation for incarcerated individuals, ($\beta = .05, p = .47, \text{Model } R^2 = .05$) across three offence vignettes. However, there was a significant positive correlation between growth mindset and belief in rehabilitation for incarcerated individuals for Vignette 1 ($\beta = .05, p = .02, \text{Model } R^2 = .11$).	6
Weimann-Saks et al. (2019)	Correlation	Akin to incrementalism, the stronger participants' belief in general malleability [a] $r = -.198, p < .01$; [b] $r = -.207, p < .05$] and case specific malleability [a] $r = -.176, p < .01$; [b] $r = -.524, p < .001$], the less severe their adjudication for the defendant.	4
Williams (2015)	Multiple Regression	A consistent pattern was found, with entitists reacting more negatively to the offender compared to incrementalists. The stronger participants were in entity theory, the more appropriate they deemed jail ($\beta = .17, p = .028$), the greater the preference for punishment over rehabilitation ($\beta = .25, p = .001$), and the less likely they would be to hire the person ($\beta = -.24, p = .003$).	4

Rehabilitative support

Eleven of the included studies supported the idea that holding a growth mindset leads to more support for offender rehabilitation for sexual offenders, violent offenders, non-violent offenders, and offenders more generally. Papers using tests of difference (2) reported small effect sizes ($\eta^2 = .04$). For papers reporting correlational data (3), effect sizes ranged from small to moderate ($r = .22$ to $.32$). For those studies using standardised beta coefficients (4), effects sizes ranged from small to moderate ($\beta = .05$ to $.38$).

Tam et al. (2013) and Rade et al. (2018a, 2018b) found that the more people held a growth mindset the more they believed that offenders should be educated to live a law-abiding life, have access to job training, drug treatment, early release and funding for rehabilitative programmes. Growth mindsets also appeared to be important when considering rehabilitative efforts within employment. Williams (2015) and Lehmann et al. (2020) found that those with growth mindsets were more likely to hire an ex-offender and were less supportive of criminal record use, respectively.

Interestingly, two studies in the current review demonstrated that growth mindsets can be successfully manipulated through reading articles (Peleg-Koriat et al. 2020) and delivering workshops (McKinsey, 2021) which teach participants how people are changeable in many ways. McKinsey (2021) delivered a growth mindset-enhanced trauma intervention which emphasised the changeable nature of the biopsychological consequences of traumatic experiences on the brain, and the corresponding changeable nature of human behaviour which may occur as a result. Participants displayed stronger growth mindsets and greater support for alternatives to incarceration for non-violent crimes, compared to a standard trauma intervention and control condition. This highlights the added value of incorporating growth mindset information or ways of thinking into interventions designed to improve rehabilitative and reintegrative outcomes for offenders.

Discussion

The purpose of the review was to understand the role that ITs play in responses to people with criminal convictions with respect to general attitudes, punitiveness and rehabilitation support. The review also aimed to consider whether the evidence differs by pertinent variables such as age, sample, IT domain, and offence type.

The review found that the majority of studies within the review (16 / 17) assessing the impact of ITs on responses to individuals with criminal convictions found that holding a growth mindset, which refers to believing that one can change or has malleable characteristics, is associated with more positive responses towards offenders including more positive attitudes, less punitive decision making and more support for rehabilitation. This is in line with the aforementioned existing literature about transgressors which suggests that compared to incrementalists, entitists were less forgiving (Iwai & de Franca Carvalho, 2020) and felt more negatively towards those exhibiting transgressive behaviours (Miller et al., 2007).

Schweitzer (2013) was the only study to find a significant difference between growth and fixed mindsets in the opposite direction. That is, when given the option to recommend life without parole or the death penalty, those holding a growth mindset were more punitive in that they were more likely to sentence a defendant of a capital murder trial to death than those holding a fixed mindset. This is at odds with the rest of the literature, as one would expect incrementalists would be less punitive, recommending the prison sentence over death. However, as the sentencing options did not offer the possibility of redemption, it may be that incrementalists viewed both options to be as punitive as each other and therefore the distinction did not matter.

For some studies, results varied between samples (Rade et al., 2018b; Schweitzer, 2013). For example, within the whole sample (undergraduate + community) Schweitzer (2013) found no significant differences between growth and fixed mindsets on the type of sentence ascribed to a defendant of a capital murder trial but found significant differences within the community sample alone. Here, age could have been a possible confounding variable as the community sample were

older than the undergraduate sample, and age was found to significantly predict sentence. As such, age may have been responsible for the difference as there is an increased chance of older incrementalists in the community sample than in the undergraduate sample. As for the undergraduate sample, the lack of difference could reflect the level of education and possible reduced susceptibility to bias.

Mediating variables

In adding explanatory depth to the overall findings of the systematic review, it was important to consider variables that may mediate the relationship between ITs and the responses discussed, particularly as the lack of this consideration is a criticism of the IT research on reactions to transgressions (Graham, 1995).

Internal attributions of criminal behaviour

The review suggests that entitists make more internal attributions of criminal behaviour, that is attributing criminal behaviour to an offender being of 'bad character', 'immoral', 'selfish' and 'unconcerned about other people's feelings' (Tam et al., 2013). This in turn leads to stronger punitiveness towards offenders. This idea fits previous literature that found children who were entity theorists were more likely to judge a misbehaving schoolmate as morally bad (Erdley & Dweck, 1993). The importance of internal attributions is further supported by Harper and Bartels (2018) where entitists were more likely to provide dispositional explanations of behaviour where offending behaviour is viewed as a reflection of the perpetrator as an individual, compared to incrementalists who were more likely to consider situation-specific factors as integral to the offending behaviour. Moreover, entitists have been found to be more likely to request dispositional information as relevant to making a decision about an offender's guilt (Gervey et al., 1999). This is supported by Miller et al., (2007) who arrived at similar findings in response to transgressors rather than offenders. They suggest that for entitists relying on dispositional information, negative responses are easier and less effortful than considering the wider context. It is possible that for entitist decision-makers, it is simply easier and less effortful to locate the problem within the person when arriving at conclusions about criminal behaviour. As such, it will be

important to be aware of internal attributions as an aspect of the entitist view, a potential target area for intervention.

Implicit theory domain

Some studies looked at ITs within the 'person' or 'personality' domain and the moral domain, whereas others were more specific, looking at ITs of 'the defendant', sexual offenders, criminal offenders, or prisoners. However, only two studies looked at both general and specific ITs within the same sample. This is important because people can hold domain specific ITs, meaning they can be an entitist in one domain whilst being an incrementalist in others (Dweck et al., 1995a). Attitudinal differences between entitists and incrementalists are far greater when believing offenders in particular can change compared to holding a more general malleability belief (e.g., Harper & Bartels, 2018). Similarly, it seems that belief in a specific defendant's malleability mediates the relationships between general malleability beliefs and less severe assessments of a defendant (Weimann-Saks et al., 2019). More research comparing responses across domains will help to determine the strength of this evidence to inform intervention strategies. It may not be sufficient to simply encourage individuals to think more incrementally about people in general via general educational approaches about the malleability of offenders; people may need to be encouraged to think about the malleability of the specific individual in question, which may be better achieved through individual clinical supervision.

Offender type

Within the included studies growth mindsets were indicative of more favourable responses to people with criminal convictions across offender type. However, only two papers had made actual comparison between offender types within their study. Furthermore, studies have demonstrated that people in general tend to evaluate (non-sexual) violent offenders more negatively than non-violent offenders, and sexual offenders more negatively than (non-sexual) violent offenders (Griffin & West, 2006; Tan et al., 2016; Weekes, et al., 1995). As such, it would be reasonable to suggest that differences may exist between offender

types based on beliefs of an individual's ability to change, resulting in a possible greater evaluative difference as a result of mindset.

However, when comparing violent, sexual, and white-collar offenders, Tan et al. (2016) found that the relationship between the belief about an offender's capacity to change and attitudes (namely desire for social distance) was not influenced by type of crime. Interestingly, within the domain of sexual offenders, Harper and Bartels (2018) looked at interactions between ITs and adult male, adult female, and juvenile male sex offenders. Entitists were more punitive to adult males compared to adult females and juvenile males, whereas incrementalists did not differ in their punitiveness between the groups. This suggests that although no differences between offence types have been found, negative bias in judgment based on perpetrator characteristics may occur as a result of holding a fixed mindset.

Given the paucity of research examining outcome differences between offence types driven by beliefs about one's capacity to change, future research may benefit from addressing this area to aid our understanding of how ITs operate. This could be particularly important for thinking about addressing potential bias through mindset-based interventions.

Implications

The current review has demonstrated that different beliefs about an individual's ability to change (holding a fixed or growth mindset) can lead to different responses and reactions to negative social behaviour. Furthermore, believing people can change, and more specifically that people who commit crimes can change often results in decision-makers adopting a more therapeutic approach to how that person is considered and managed. It is well understood that harsh and punitive treatment of offenders is not conducive to reductions in reoffending, successful rehabilitation or societal reintegration efforts. In fact, punitive strategies such as harsh prison conditions and imposing longer sentences not only have little effect on reducing reoffending, they are criminogenic and can result in increased rates of recidivism (Ritchie, 2011; Tait, 2001). As such, it is important

to understand the factors that may be associated with increased negative bias towards offenders.

Early work within the area (e.g., Chow, 1996; Hong & Yeung, 1997; Levy et al., 1998) suggests that those who understand other people and their behaviour through a lens in which people can develop with time and effort and across contexts, exhibit fewer negative evaluations and fewer biased patterns of behaviour towards others. The current review extends these findings to the often-stereotyped group that are offenders, who often experienced prejudicial treatment as a result.

But what does this mean for offenders? In line with previous studies (Chiu et al., 1997; Halperin et al., 2012), the current review has shown that growth mindsets can be manipulated or primed experimentally by way of having participants read articles or by delivering workshops emphasising the changeable nature of people and the characteristics they hold (McKinsey, 2021; Peleg-Koriat et al., 2020). This in turn leads to more favourable responses to the individuals under assessment. Although in practice, it is unlikely that the general public could be subjected to these sorts of direct interventions, the evidence suggests that governments may want to attain support towards alternative responses to crime by cultivating a growth mindset amongst the public. This may be as simple as changing the way in which information about offenders is disseminated; to include language in line with malleability beliefs.

For individuals working with offenders in a professional capacity, existing ways of working could be enhanced by explicitly embedding incremental ways of thinking into practices, through supervision and training. Growth mindsets are likely already fostered in the field of forensic mental health with the push for services to become more trauma informed. After all, trauma-informed care endorses the idea that with support and intervention people can overcome their traumatic experiences (Substance Abuse and Mental Health Services Administration, 2014), which increases offender responsiveness to efforts made to reduce risk factors (Miller & Najavits, 2012). However, work across other sectors of the criminal justice system is still emerging (e.g., McKenna & Holtfreter, 2021). In addition, McKinsey (2021) has demonstrated further intervention gains from being explicit about the

changeable nature of human behaviour within trauma-informed interventions which may be worth consideration.

Limitations and future directions

Although the research into inducing growth mindsets looks promising, findings by McKinsey (2021) only applied to offenders who had committed non-violent crimes. The intervention had no effect for offenders who had committed violent crimes, suggesting that for violent offenders, delivering growth mindset-enhanced interventions may not be enough to influence responses and therefore other interventions may need to be considered. However, definitive conclusions cannot be drawn from one study alone which indicates the need for more Randomised Control Trials (RCTs) to examine the scope for and effects of inducing mindsets. In addition, the two studies described are only reflective of short-term effect gains, therefore future research should look at examining effectiveness over longer time periods. If mindset enhancing interventions are going to be conducive to offender rehabilitation, there would need to be evidence of longevity in mindset change, and how this can be achieved and maintained.

As previously reported, the quality of included studies varied. Whilst most studies were above average in quality, 5 studies fell below this benchmark. Considering all studies used self-report measures which are subject to socially desirable and inattentive responding, no study included a measure of social desirability and only 4 conducted attention checks. Future research should include a measure of social desirability and attention checking to account for any biases in responding and exclude participants where necessary. Although all studies reported descriptive statistics for important demographic information for the whole sample, many studies did not report descriptive statistics for each *mindset group* which made it difficult to fully consider confounders when interpreting results. Regarding study quality, this is problematic as it makes it difficult to establish causal relationships between the variables of interest, reducing the validity of the findings. For example, as previously discussed age may have been a possible confounder in findings by Schweitzer (2013) which could explain why the findings contradict the majority of the mindset literature. However, mean age for each mindset group was not reported leaving this explanation unclear. It will be important for future

research to report descriptive statistics for each mindset group and carefully consider the impact of demographics, accounting for this in the way findings are reported.

Several studies utilised undergraduate or student samples resulting in low external validity. However, 10 studies utilised community samples which were more representative of the general population. Nevertheless, only 1 study included a sample of individuals who are likely to impact outcomes for offenders on a professional level (e.g., lawyers). Individuals such as judges, lawyers, probation officer, police officers, legal advocates, forensic psychologists, social workers, psychiatrists, nurses etc. represent several professional groups of which an offender will have contact with within their journey through the criminal justice system. These individuals will make decision, judgements and evaluations that will impact upon the offender's care, treatment, and rehabilitation. We know certain factors influence a person's attitudes towards offenders with sexual convictions such as job role, empathy, exposure to offenders, personality, sexual victim status etc (Challinor & Duff, 2018; Harper et al., 2017;), however it will be important to understand whether and how some of these characteristics may interact with ITs. As such, future research should consider these populations and characteristics when exploring the link between ITs and responses to offenders, the aims of chapter three.

Conclusions

This review highlights the relationship between ITs (whether people or their characteristics can change) and responses to offenders. Growth mindsets tend to promote more positive attitudes, less punitiveness and more support for rehabilitation strategies. Several factors also mediate this relationships suggesting the nature of ITs is complex. There is preliminary evidence to suggest that growth-mindsets can be experimentally primed and enhance outcomes of existing interventions, however more research is needed. Nevertheless, there is promising evidence to suggest that encouraging malleability beliefs about people with criminal convictions will promote alternative responses to crime that are conducive to positive outcomes.

CHAPTER THREE

**Exploring implicit theories amongst professionals in forensic settings
and the impact on attitudes towards individuals with sexual convictions**

Abstract

Further developing our understanding of attitudes toward individuals who sexually offend (ISOs) and the factors underpinning attitudes is pivotal to reducing the harm that sexual crime has on our society. By understanding how professionals think about ISOs, we can understand the ways in which they may contribute to or hamper successful treatment and rehabilitation efforts. Receiving little attention is the impact of one's beliefs about whether ISOs have the capacity to change; that is, whether people hold an entity (fixed) or incremental (growth) implicit theory (IT) of one's characteristics. The study sought to examine the proportion of entity vs incremental ITs amongst respondents, whether person-related factors are associated with ITs, and how ITs impact upon attitudes amongst individuals who are hypothesised to hold less negatively biased views and representations of ISOs. Purposive sampling was used to recruit a range of professionals representing the Multi-Disciplinary Team (MDT) in forensic mental healthcare settings ($N=228$). Amongst professionals working in forensic settings, the study found a higher proportion of incrementalists (than entitist) of 'people' in general and ISOs specifically. Age, gender, sexual victim status and experience were not associated with ITs, however, type of profession and newspaper readership were. Moreover, incrementalism was associated with more positive attitudes towards ISOs. In comparison to studies using community samples, the proportion of incrementalists and the strength of attitudes were higher amongst the current professional sample, indicative of higher malleability beliefs and more positive attitudes. The findings have clinical implications for working with ISOs in forensic mental healthcare settings; promoting incremental thinking, particularly amongst professionals who may be more influenced by negative interactions with ISOs (e.g., nursing staff), may be conducive to successful treatment and rehabilitation outcomes.

Introduction

Sexual crime

Sexual crime is considered a significant public health issue as it brings about serious consequences at an individual, community and societal level (Basile et al., 2021). Survivors of sexual violence may experience a range of serious physical and mental health issues alongside behavioural and social consequences. This may include reproductive/sexual health related difficulties, depression, anxiety, post-traumatic stress disorder, suicidality, high risk behaviours (e.g., alcohol/drug abuse), and for some, fatal outcomes linked to suicide, pregnancy complications, and unsafe abortions (World Health Organisation, 2012, 2020). Sexual crime impacts communities, specifically perceptions of safety and limits in social function, which has a negative impact on community cohesion (Office for National Statistics, 2022). Furthermore, at a wider societal level sexual crime is economically costly. In the UK, rape and 'other sexual offences' are estimated to cost a total of £12.2bn per year based on the latest report on the economic costs of crime (Heeks et al., 2018).

Public attitudes and perceptions

Individuals who sexually offend (ISOs) are amongst the most stigmatised, stereotyped and despised groups of individuals with criminal convictions (Tewksbury, 2012). As such, considering how to reduce the harm posed by ISOs to our communities by understanding how people view these individuals is a crucial area of study. ISOs are considered more harmful, aggressive, dangerous, violent and unchangeable than non-sexual offenders (Weekes et al., 1995), and tend to occupy the lower rungs of the prison hierarchy (Schwabe, 2005). Whilst ISOs more generally are assumed to be the 'worst' type of perpetrator (Feldman & Crandall, 2007) against whom hostility and aggression are routinely directed (Tewksbury, 2012), those who offend against children are often perceived as 'the worst' of all ISOs (Ferguson & Ireland, 2006). This is unsurprising considering the way in which sexual crime is reported in the media and how this may influence attitudes towards this group. As the largest disseminators of misinformation about ISOs, the media often perpetuate misperceptions of ISOs (Galeste et al., 2012).

News articles about sexual crimes are often sensationalised in that they focus on high profile cases (Ducat et al., 2005), use more negative and 'angrier' language than other types of news articles (Harper & Hogue, 2014), whilst also convoluting perceptions of the prevalence of sex crimes by reporting them at a rate 10 times higher than the actual rate (Harper & Hogue, 2017). This is a significant problem as these misperceptions may affect the level of stereotyping and stigmatization ISOs face whilst in the community, which may both directly and indirectly impact upon their ability to reintegrate.

Harper and Hogue (2017) have suggested that sensationalised, biased, and selective media coverage leads to a skewed representation of sexual offenders and the endorsement of inaccurate beliefs, resulting in more negative attitudes. This includes believing sex offenders are homogenous, "dirty old men", who are primarily strangers, sexually frustrated, uneducated, resistant to treatment and mentally ill (Bolen, 2007; Cromer & Goldsmith, 2010, Fuselier et al., 2002; Sanghara & Wilson, 2006). Research has also shown that many members of the general public envision media-proliferated stereotypical images of sexual offenders as violent and predatory paedophiles (King & Roberts, 2017), and many do not have a sound understanding of the labels they use; for example, viewing paedophile as synonymous with child abuser (Imhoff, 2015). These perceptions (or misperceptions) about ISOs and their behaviour are often contrary to empirical research (Levenson, 2007) and can contribute to the endorsement of harsher legal penalties and the endorsement of punishment over rehabilitation (King, 2019).

Compared to non-sexual offenders, people assign higher levels of punitiveness to ISOs regardless of offender characteristics, that is whether the offender is a child, adolescent, or adult (Rogers & Ferguson, 2011). Conversely, ISOs are assigned lower levels of rehabilitation support than non-sexual offenders. There is also a tendency to judge sexual offenders more punitively when perceived to fit the 'stereotype' (e.g., Salerno et al., 2010). Moreover, a recent study by King (2019) measured public perceptions about sexual offences, focussing on misconceptions and punitiveness. King (2019) found that a large proportion of participants held misinformed opinions about ISOs in addition to exhibiting a considerable amount of punitiveness towards them. This included misperceptions about recidivism rates and the utility of treatment, alongside increased punitiveness in the form of longer

prison sentences, indefinite detention for repeat offenders and low endorsement of community treatment. King (2019) also found that misconceptions about ISOs drove punitiveness towards these individuals. This coincides with earlier research where individuals have indicated that ISOs are more likely to reoffend than other offenders and that treatment is ineffective (Quinn et al., 2004), even though this does not align with empirical evidence. Research has also demonstrated the public's support for long sentences (Levenson et al., 2007), castration (Comartin et al., 2009), and even the death penalty (Mancini & Mears, 2010).

Cognitive underpinnings

Harper and Bartels (2018) proposed that biased beliefs about ISOs form a distorted 'sexual offender schema' which underpins negative evaluations of sexual offenders, contributing to the formation of negative attitudes. This is based on the social-cognitive theory of attitudes (Fiske & Taylor, 1991), suggesting that individuals view the world through 'cognitive structures' which develop through their experiences. People typically make decisions about category membership (e.g., sexual offenders) based on how representative they are of 'typical members' of that category (e.g., media-proliferated stereotypes); this is known as the representative heuristic (Tversky & Kahneman, 1974). This then allows individuals to use non-conscious heuristics (or mental short-cuts) when forming attitudes and making decisions about a particular category member (e.g., sexual offenders) when it fits their cognitive structure (sex offender schema). However, this has potential negative implications as demonstrated by Harris and Socia (2016) who found that the label 'sex offender' evoked more punitive attitudes than when describing sexual offenders as 'people who have committed crimes of a sexual nature'. The use of these mental shortcuts may lead individuals to rely on a biased sexual offender schema to inform decision-making, which is likely to have negative outcomes for sexual offenders and their rehabilitation, both on a clinical and societal level. King's (2019) findings may provide evidence of individuals using 'mental short cuts' based on stereotypical representations of ISOs (distorted 'sexual offender schemas') to make decisions, leading to harsher evaluations and judgements, which are unaligned with the facts. This brings about significant concern as community perceptions about ISOs and what should happen to them upon re-entry into the community may influence public policies. When based on

misinformation, this may act to further exclude ISOs from society in many ways, which in turn could increase recidivism.

Factors influencing attitudes

In their literature review, Harper et al. (2017) brought together existing research regarding attitudes towards ISOs to shed light on the psychological factors underpinning attitudes. They highlight research looking at the relationship between several demographic factors (which they defined as “issues that are relevant to the identity of the person”, p.13). These include gender, age, educational attainment, parenthood, sexual victim status, newspaper readership and personality factors (e.g., Craig, 2005; Ferguson & Ireland, 2006; Hogue & Peebles, 1997; Levenson et al, 2010; McCartan, 2010; Olver & Barlow, 2010). They conclude that these demographic and person-related concepts have been found to be inconsistently related to both positive and negative attitudes and the direction of attitudinal difference based on these factors are inconsistent between studies. They also highlight inconsistencies in how attitudes have been measured with some studies using the Community Attitudes Towards Sex Offenders scale (CATSO; Church et al, 2008), a non-comprehensive measure of attitudes, whilst others utilising non-standardised measures.

The most consistent factor found to have a positive impact on attitudes is exposure to ISOs in either a personal or professional capacity (e.g., Hogue 1993). This is not just supported by the literature review by Harper et al. (2017) but also a recent systematic review by Challinor and Duff (2018). Research has demonstrated that experience working with sexual offenders has a positive influence on attitudes (e.g., Gakhal & Brown, 2011; Higgins & Ireland, 2009; Kerr et al., 2018; Simon 2010) but, more specifically, the type of exposure is particularly important. That is, those who work with sexual offenders in a more treatment-focussed manner display more positive attitudes (Blagden et al., 2016; Day, 2014; Higgins & Ireland, 2009; Hogue, 1993; Hogue & Peebles, 1997; Johnson et al., 2007). It could be that individuals with more positive attitudes are simply drawn to such professions, however, attitudes towards sexual offenders may improve over time with experience and exposure of working therapeutically with sexual offenders. It has been hypothesised that increased exposure leads to

the rejection of social stereotypes (Sanghara & Wilson, 2006), and a less biased sexual offender schema (Harper & Bartels, 2018).

Implicit theories

When considering the possible cognitive structures and processes underlying attitudes, a potentially important but understudied factor is implicit theories (ITs) of human attributes (Dweck et al., 1995a, 1995b). As described in chapter two, this refers to whether people believe someone is fixed in their ways (*referred to as entity theorists, entitists or holding a 'fixed mindset'*) or can change (*incremental theorists, incrementalists or holding a 'growth mindset'*). Entitists tend to believe that nothing much can be done to change someone's characteristics, regardless of the amount effort or motivation towards change people have, whereas incrementalists believe that people can change with time and effort, and this may be impacted by the environmental context (Dweck et al., 1995a). ITs aid our understanding of complex or ambiguous information, and people are guided by these theories which help them make sense of human behaviour more generally. These processes seem to be automatic and operate outside one's conscious awareness. However, research has shown how this can also lead to the formation of stereotypical, prejudicial, and discriminatory views and behaviours towards others. Compared to those holding more of an incremental theory of human behaviour, entitists are more prone to stereotyping (Plaks et al., 2001), reach conclusions quicker in the face of limited information and perceive there to be less variability between individuals within the same group (Levy et al., 1998).

We could hypothesise that people holding a fixed mindset are more likely to subscribe to stereotypical ideas about ISOs and engage in less effortful thinking when making decisions about them, whilst treating them as a homogenous population and being less likely to take into consideration individual differences (i.e., context). It may be that understanding and organising information through entity-oriented cognitive structures may lead to the use of 'mental short cuts' that are susceptible to stereotypical media representations of ISOs, which may lead individuals to miss out potentially important information (i.e., information that may be situationally relevant). Undoubtedly, this will impact upon how someone

thinks, feels and behaves towards ISOs, possibly resulting in inaccurate beliefs and increased negative bias towards this group. This is akin to the social-cognitive theory of attitudes (Fiske & Taylor, 1991) described above, but suggests that one's implicit theory may increase susceptibility to biased information, leading to, or further compounding one's distorted sexual offender schema.

Conversely, as described in chapter two, holding a growth mindset appears to result in individuals displaying more positive attitudes towards ISOs. Research has demonstrated that, in comparison to individuals with a fixed mindset, those with a growth mindset were less detached from ISOs, were more likely to believe that ISOs were more trustworthy and could redeem themselves, ascribed lesser degrees of intent towards ISOs and desired less social distance from them (Harper & Bartels, 2018; Schumann, 2013; Tan et al., 2016). Furthermore, there are inconsistencies as to whether belief in the malleability of people in general or offenders specifically impacts on responses to offenders. Moss et al. (2019) found that only offender malleability influenced attitudes towards offenders whereas Harper and Bartels (2018) found that both general and offender specific ITs influenced attitudes. As these studies were based on either undergraduate or community samples, what would it mean for professionals involved in the care and treatment of ISOs to subscribe to an entitist mindset? It is likely that these beliefs can have implications for clinical practice and therefore how ISOs are treated in forensic settings, which impacts the social and therapeutic climate and in turn may influence treatment outcomes (Beech & Hamilton-Giachritsis, 2005). Interestingly, only one study has looked at the relationship between ITs and attitudes towards ISOs in a professional sample. Blagden et al. (2016) found that both staff working in a sex offender treatment-oriented prison and the prisoners themselves who held incremental theories displayed more positive attitudes towards sexual offenders than those holding entity theories. However, they combined both prisoner and staff data in their analyses, meaning that conclusions regarding professionals were confounded by that of prisoners thus deeming the findings unclear.

The relationship between demographic factors and attitudes is well documented, but less so for ITs. Although Harper and Bartels (2018) looked for group differences in ITs based on age, gender, newspaper readership and political

orientation, no study to date has considered a range of demographic factors amongst professionals and their relationships with ITs. A level of objectivity is valued amongst professionals in terms of exhibiting fair and unbiased views and decisions about individuals under their care. As such, it would be of value to further explore the underpinnings of ITs and their relationship with demographic / person related factors. In addition, there are few studies which have examined attitudes of a wide range of professionals that make up the multi-disciplinary team (MDT) in forensic mental healthcare settings in the UK; the majority of studies tend to be prison/community based or reflect limited professional disciplines in forensic healthcare overseas (e.g., Challinor & Duff, 2018).

The present study

Given the paucity of data on the underpinnings of ITs and the potential impact upon professionals' attitudes towards ISOs, the present study aims to address the gap in the literature by exploring this relationship amongst a range of professionals who work with ISOs in forensic mental healthcare. The study aims to understand how ITs (of both human nature in general and ISOs specifically) operate amongst a group of individuals who are hypothesised to hold a less biased sexual offender schema due to their increased exposure to ISOs. As such, the following hypotheses were developed:

Hypothesis 1: A higher proportion of professionals will hold incremental ITs of both human nature and sexual offenders compared to those holding entity ITs within both domains (H1).

Hypothesis 2: There will be a difference in the type of implicit theory held based on demographic and person related concepts including age, gender, sexual victim status, newspaper readership, experience, and professional discipline (H2).

Hypothesis 3: Professionals holding an incremental view of human nature and sexual offenders will display more positive attitudes towards individuals who sexually offend than those holding an entitist view, with a larger effect for ITs about sexual offenders (H3).

Method

Participants

Using purposive sampling techniques, a sample of professionals was recruited through a private mental healthcare company which has services across the UK. Services were only approached to take part in the online study if they provided secure in-patient services to clients with forensic histories. These included low and medium secure hospitals, inpatient rehabilitation services, personality disorder services, high dependency complex care units and CAHMS secure services. Participants took part in the study if they were from the following disciplines: healthcare support workers (HCSWs), mental and physical health nurses, doctors, psychologists, occupational therapists and management. This ensured the sample was representative of the MDT, capturing those who are likely to have a significant impact on the care and treatment of clients using their services.

The sample consisted of 228 participants ($M_{age} = 33.18$, $SD_{age} = 11.32$); 187 females, 38 males and 1 non-binary. Two participants preferred not to disclose their gender. By profession, the sample consisted of 79 support workers, 4 doctors, 41 nurses, 52 psychologists, 20 occupational therapists, 15 social workers and 17 managers. Of the 228 individuals who took part in the study, 201 participants remained in the ITs of human nature data set (ITHN), and 168 participants remained in the ITs of sexual offenders (ITSO) analyses. This was because participants scoring between 3 and 4 on the implicit theories scale (see below) were excluded as they were deemed to be on the cusp of incrementalism/entitism. Sample sizes per analysis may also differ due to missing data.

To determine the minimum sample size required to test the study's hypotheses, a priori power analysis was conducted using G*Power version 3.1.9.6 (Faul, et al., 2007), based on data from Harper and Bartels (2018) ($N = 252$). Results indicated the required sample size to achieve 95% power for detecting a medium effect, at a significance criterion of $\alpha = .05$, was $N = 232$ for a Chi-square test (H2). For an independent t -test (H3), the required sample size to achieve 95% power for detecting a large effect, at a significance criterion of $\alpha = .05$ was $N = 70$ ($n = 35$

for each group). As such, the current study was just shy of the required sample size, therefore the results should be interpreted with caution.

Ethical considerations

Prior to data collection, ethical approval was granted by the Faculty of Medicine and Health Sciences Research Ethics Committee at the University of Nottingham (reference number: FMHS 06-0420) and by the healthcare provider's Research & Development Group (Appendix D & E). In addition, each site was contacted individually by the researcher through the hospital manager or psychology department. The study was briefly explained, and consent was gained for each site to take part (final approval granted by the hospital manager).

A URL link to the online study was disseminated by the site's admin team to all staff, highlighting the disciplines at which the study was targeted (Appendix F). It was important for the study to be distributed by a neutral source, so staff members did not feel pressured to complete the survey. As the study was conducted in a place of work, participants were also reminded that the decision whether to participate in the study would have no bearing on the relationship with, or treatment in, their workplace.

To take part in the study, participants were required to be over 18 years of age with the capacity to give informed consent and work within the aforementioned disciplines. Prior to giving their consent to take part (Appendix H), participants were briefed on the nature of the study, assured confidentiality and anonymity and informed of the voluntary nature of the study and their right to withdraw at any time (Appendix G). Following completion, participants were fully debriefed (Appendix I).

Materials

Demographic Questionnaire

Participants were asked to provide a range of demographic and person related information such as their age, gender, occupation, newspaper preference (tabloid,

broadsheet, both; as a proxy for exposure to sensationalised/essentialised media coverage), sexual victim status, years of experience in forensic/mental health settings, and whether they know (personally) or have worked with a person who has committed a sexual crime (Appendix J).

Implicit theories measure

Two three-item self-report measures (Appendix K) were used to assess participants ITs of human nature (ITHN) and their ITs of sexual offenders (ITSO); that is, the extent to which participants believe that individuals in general and sexual offenders in particular have the ability to change. The former was developed by Dweck et al. (1995a) and includes items such as “Everyone is a certain kind of person and there is not much that can be done to really change that”. The latter is an adaptation of the original scale (Dweck et al., 1995a) by Harper and Bartels (2018) and includes items such as “Whether somebody commits a sexual crime is very much related to who they are as a person”. Participants were asked to rate their level of agreement to each statement using a 6-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree).

To produce composite scores and determine what type of IT each participant holds for each measure, recommendations by Dweck et al. (1995a) were followed. Individuals whose average scores fell between 1 and 3 were categorised as ‘incrementalists’ or believed to have ‘growth mindsets’ (people can change over time/context), whilst those whose average scores fell between 4 and 6 were categorised as ‘entitists’ or believed to have ‘fixed mindsets’ (people are unchangeable). Average scores falling between 3 and 4 were excluded from all analyses. A total of 27 participants were excluded from the ITHN data set, and a total of 60 participants were excluded from the ITSO data set. The ITHN measure demonstrated good internal reliability ($\alpha = .86$) whereas the ITSO measure demonstrated acceptable internal reliability ($\alpha = .64$).

A potential disadvantage to the use of this measure is that having a small number of items in a scale could lead to low internal reliability because the internal reliability of a psychometric measure is positively related to its number of items

(Dweck et al., 1995a). Whilst there are recent adaptations of this scale which include a larger number of items (e.g., Schumann, 2019), Dweck et al., (1995a) suggest that ITs can be considered a construct with a simple unitary theme, therefore repeatedly rephrasing the same idea may lead to confusion and boredom. Hence it was considered appropriate for the current study to use the scale with the original number of items. Furthermore, studies have produced alpha coefficients ranging between .88 and .96 for ITs of human attributes and .74 for ITs of sex offenders (Dweck et al., 1995a; Harper & Bartels, 2018) indicating that the 3-item scale is a valid measure of the constructs of incremental and entity theory.

Attitudes towards sex offenders scale

The 21-item Attitudes Towards Sex offenders scale (ATS-21; Hogue & Harper, 2019) is a self-report questionnaire requiring participants to rate their level of agreement/disagreement with attitudinal statements about sexual offenders (e.g., "Sex offenders are different from other people") on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The ATS-21 (Appendix L) has three 7-item subscales ("Trust", "Intent", and "Social Distance"). Eleven items are reversed scored so that higher scores indicate more positive attitudes. Scores are summed and a constant of 21 removed, yielding scores ranging from 0-84. Higher scores indicate more positive attitudes towards ISOs. The ATS-21 demonstrated excellent internal consistency as a whole ($\alpha = .92$) and within its subscales; Trust, $\alpha = .80$; Intent, $\alpha = .88$; Social Distance, $\alpha = .80$.

Due to human error, participants were actually asked to rate their level of agreement to each statement on a 6-point Likert scale scored from 1 (strongly disagree) to 6 (strongly agree), instead of the original 5-point Likert scale scored from 1 (strongly disagree) to 5 (strongly agree). To ensure scores were comparable to other studies, responses were transformed (scores were divided by 6 and multiplied by 5) to the equivalent of the traditional ATS-21 scale. Transformation was completed prior to reliability analysis.

Design and procedure

The study used a between-subject design. The independent variable was participants' implicit theories and participants were either categorised as 'incrementalists' indicative of holding a growth-mindset, or 'entitists' indicative of holding a fixed mindset. The dependent variables included, age, gender, sexual victim status, newspaper readership, professional discipline, experience, and attitudes.

Potential participants were invited to take part in a survey which was administered online through a direct URL link distributed via email by each site's admin team. Participants interested in taking part clicked the URL link which took them to the first page of the survey and provided information about the study. If participants wanted to take part, they were asked to click the 'take me to the consent page' button and then 'yes - I want to take part'. They were then asked to complete the demographic questionnaire followed by the two implicit theory measures (ITHN & ITSO) and the ATS-21. Participant went on to complete additional measures described in chapter 4 but not analysed in this study. Finally, participants were thanked for their participation and were fully debriefed about the aims of the study.

Results

H1: Proportions of implicit theories

An exact binominal test with exact Clopper-Pearson 95% Confidence Interval (CI) was conducted to determine whether there was a greater proportion of incrementalists amongst professionals across the two domains of interest and whether the likelihood of this was greater than chance.

With regards to ITs of human nature, there were a higher proportion of incrementalists (79.6%) than entitists (20.4%) as shown in Table 4, suggesting that a higher proportion of professionals believe that people in general have the capacity to change. A binomial probability test revealed that professionals were significantly more likely to be incrementalists, $p < .001$.

Similarly, there were a higher proportion of incrementalists (63.1%) than entitists (36.9%) regarding ITs of sexual offenders again suggesting that more professionals believe that ISOs have the capacity to change. A binominal probability test revealed that professionals were also significantly more likely to be incrementalists than entitists, $p < .001$.

Across the two implicit theory domains there was a higher proportion of incrementalist of human nature, than there were incrementalists of sexual offenders. Confidence intervals for these two groups did not overlap suggesting that both incrementalist groups are unlikely to have the same percentage and are therefore likely to be different. As such, the results suggest that more individuals think incrementally about people in general than they do about ISOs.

Table 4. Number and percentage of ITHN and ITSO incrementalists and entitists

	ITHN: $N=201$		ITSO: $N=168$	
	Incrementalists	Entitists	Incrementalists	Entitists
n	160	41	106	62
%	(79.6%)	(20.4%)	(63.1%)	(36.9%)
CI	.73 - .85	.15 - .27	.55 - .70	.30 - .45

H2: Group differences on demographics and person-related factors

Age

A Chi-Square test and Cochran–Armitage test for trend were conducted to determine whether there was an observed difference or linear trend in the proportion of incrementalists amongst different age groups. Age was ordered into 5 categories. There was a similar percentage of incrementalists of human nature across each group, with slightly more incrementalists amongst the youngest and oldest participants. Regarding ITs of sexual offenders, there were more incrementalists amongst the 35 - 44 and 55 - 64 groups compared to the other age groups (Table 5). The test did not show a statistically significant difference or linear trend between age groups amongst incrementalists of human nature ($p = .63$; $p^{trend} = .41$) or incrementalists of sexual offenders ($p = .41$; $p^{trend} = .27$).

Table 5. Number and percentage of ITHN and ITSO incrementalists ordered by age.

		<i>n</i>	18-24	25-34	35-44	45-54	55+
ITHN <i>N=201</i>	<i>Total</i>		45	92	29	22	13
	<i>Incrementalists</i>		39 (86.7%)	72 (78.3%)	22 (75.9%)	16 (72.7%)	11 (84.6%)
ITSO <i>N=167^a</i>	<i>Total</i>		33	76	27	17	14
	<i>Incrementalists</i>		19 (57.6%)	45 (59.2%)	21 (77.8%)	10 (58.8%)	10 (71.4%)

a. One participant excluded for not providing age

Gender

A Chi-Square test was conducted to determine whether there was an observed difference in the proportion of incrementalists that are male or female. There appeared to be a higher proportion of female than male incrementalists across both implicit theory domains (Table 6). However, the Chi-Square test did not show a statistically significant difference between males and females in proportions of incrementalists of human nature ($p = .58$) or incrementalists of sexual offenders ($p = .68$).

Table 6. Number and percentage of ITHN and ITSO incrementalists by gender

	n	Males	Females
ITHN N=198 ^a	<i>Total</i>	33	165
	<i>Incrementalists</i>	25 (75.8%)	132 (80.0%)
ITSO N=166 ^b	<i>Total</i>	30	136
	<i>Incrementalists</i>	18 (60.0%)	87 (64.0%)

a. Participants excluded: 2 prefer not to say, 1 other

b. Participants excluded: 1 prefer not to say, 1 other

Sexual victim status

A Chi-Square test was conducted to determine whether there was an observed difference in the proportion of incrementalists between those who had either 'been' a victim of sexual crime or had 'known' a victim of sexual crime, and those who had not. Amongst those who indicated whether they had *been* a victim of sexual crime, the Chi-Squared test did not show a statistically significant difference between victims and non-victims in proportions of incrementalists of human nature ($p = .60$), nor did the test show a significant difference between victims and non-victims in proportions of incrementalists of sexual offenders ($p = .16$) (Table 7).

Table 7. Number and percentage of ITHN and ITSO incrementalists by SVS (been a victim)

	n	Victim	Not Victim
ITHN N=190 ^a	<i>Total</i>	72	118
	<i>Incrementalists</i>	55 (76.4%)	94 (79.7%)
ITSO N=155 ^b	<i>Total</i>	56	99
	<i>Incrementalists</i>	31 (55.4%)	66 (66.7%)

a. Participants excluded: 11 prefer not to say.

b. Participants excluded: 13 prefer not to say.

Amongst those who indicated whether they had *known* a victim of crime, the Chi-Squared test did not show a statistically significant difference between victims and non-victims in proportions of incrementalists of *human nature* ($p = .12$), nor did the test show a significant difference between victims and non-victims in proportions of incrementalists of *sexual offenders* ($p = .98$) (Table 8).

Table 8: Number and percentage of ITHN and ITSO incrementalists by SVS (known a victim)

	<i>n</i>	Victim	Not Victim
ITHN <i>N=201</i>	<i>Total</i>	129	72
	<i>Incrementalists</i>	107 (82.9%)	53 (73.6%)
ITSO <i>N=166^a</i>	<i>Total</i>	102	64
	<i>Incrementalists</i>	64 (62.7%)	40 (62.5%)

a. Participants excluded: 2 prefer not to say.

Newspaper readership

A Chi-Square test was conducted to determine whether there was an observed difference in the proportion of incrementalists amongst 'broadsheet', 'tabloid', and 'both broadsheet & tabloid' (dual) newspaper readers (Table 9). With regards to ITs of *human nature*, the highest proportion of incrementalists were amongst broadsheet only and dual-paper readers. The Chi-Square test revealed a statistically significant difference across readership type ($p = .003$).

Post hoc analyses involved pairwise comparisons using multiple Fisher's exact tests with a Bonferroni correction to correct for multiple comparisons. Statistical significance was accepted at $p < .02$. Fisher's exact tests were used as the Chi-Square assumption for sample size was not met, with more than 20% of cells with an expected count of less than 5. Compared with tabloid readers, there was a statistically higher proportion of incrementalists amongst broadsheet only readers (risk difference = 32.9%, $p = .02$) and amongst dual readers (risk difference = 33.2%, $p = .01$).

With regards to ITs of sexual offenders, the highest proportion of incrementalists was amongst the dual readership and the lowest was amongst the tabloid readerships. However, the overall association was not statistically significant ($p = .15$).

Table 9. Number and percentage of ITHN and ITSO incrementalists by newspaper readership

	<i>n</i>	Tabloid Only	Broadsheet Only	Dual Readership
ITHN <i>N=82^a</i>	<i>Total</i>	21	30	31
	<i>Incrementalists</i>	12 (57.1%)	27 (90.0%)	28 (90.3%)
ITSO <i>N=70^b</i>	<i>Total</i>	14	27	29
	<i>Incrementalists</i>	7 (50.0%)	18 (66.7%)	23 (79.3%)

a. Participants excluded: 117 no newspaper, 2 prefer not to say.

b. Participants excluded: 97 no newspaper, 1 prefer not to say.

Professional discipline

A Chi-Square test was conducted to determine whether there was an observed difference in the proportion of incrementalists amongst the 7 selected disciplines. However, the Chi-Square assumption for sample size was not met, with more than 20% of cells with an expected count of less than 5. As such, Fisher's exact tests were used instead (Table 10).

With regards to ITs of human nature, the highest proportion of incrementalists were amongst psychologists and the lowest were amongst healthcare support workers (HCSWs). However, Fisher's exact tests did now show a statistically significant difference between professions ($p = .05$).

Regarding ITs of sexual offenders, aside from the small sample size of doctors, the highest proportion of incrementalists were amongst psychologists and the lowest were amongst HCSWs. HCSWs made up the only group where there were a smaller proportion of incrementalists than entitists. Fisher's exact tests showed

there was a statistically significant difference in proportions of incrementalists between professions ($p < .001$).

Post hoc analysis involved pairwise comparisons using multiple Fisher's exact tests with a Bonferroni correction to correct for multiple comparisons. Statistical significance was accepted at $p < .01$. The proportion of incrementalists was significantly higher amongst psychologists compared to HCSWs (risk difference = 47.4%, $p < .001$). There was also a significantly higher proportion of incrementalist amongst psychologists compared to nurses (30.3%, $p = .004$).

Table 10. Number and percentage of ITHN and ITSO incrementalists and entitists by professional discipline

		<i>n</i>	HCSW	Dr	Nurse	Psych	OT	SW	M
ITHN <i>N=201</i>	Total		68	4	38	46	17	14	14
	Incrementalists		48 (70.6%)	3 (75.0%)	29 (76.3%)	43 (93.5%)	15 (88.2%)	12 (85.7%)	10 (71.4%)
ITSO <i>N=168</i>	Total		53	4	29	45	14	9	14
	Incrementalists		22 (41.5%)	4 (100%)	17 (58.6%)	40 (88.9%)	9 (64.3%)	6 (66.7%)	8 (57.1%)

Note. HCSW = Healthcare Support Worker; Dr = Doctor; Psych = Psychologist; OT = Occupational therapist; SW = Social Worker; M = Management

Experience in mental health settings

A Chi-Square test and Cochran–Armitage test for trend were conducted to determine whether there was an observed difference or linear trend in the proportion of incrementalists based on differing years of experience in mental health settings. The Chi-Square assumption for sample size was not met, with more than 20% of cells with an expected count of less than 5. As such, Fisher's exact test was used instead. Experience was ordered into 4 categories.

With regards to ITs of both human nature and sexual offenders, those with 11 – 20 years of experience in mental health settings had the highest proportion of incrementalists (Table 11). Results did not show a statistically significant difference or linear trend between groups within the different years of experience

amongst incrementalists of human nature ($p = .67$; $p^{trend} = .62$) or incrementalists of sexual offenders ($p = .80$; $p^{trend} = .75$).

Table 11. Number and percentage of ITHN and ITSO incrementalists ordered by experience in mental health settings.

		n	0-10	11-20	21-30	31+
ITHN N=201	Total		161	23	12	5
	Incrementalists		129 (80.1%)	19 (82.6%)	8 (66.7%)	4 (80%)
ITSO N=168	Total		130	22	11	5
	Incrementalists		80 (61.5%)	16 (72.7%)	7 (63.6%)	3 (60%)

Experience in forensic settings

Similarly, the Chi-Square assumption for sample size was not met. As such, a Fisher’s exact test and Cochran–Armitage test for trend were conducted to determine whether there was an observed difference or linear trend in the proportion of incrementalists based on differing years of experience in forensic settings. Experience was ordered into 3 categories.

With regards to both ITs of human nature and sexual offenders, those with more than 21 years of experience in forensic settings had the highest proportion of incrementalists (Table 12). However, it is of note that sample sizes were small and likely to have affected the results. Results did not show a statistically significant difference or linear trend between groups with different years of experience amongst incrementalists of human nature ($p = 1.00$; $p^{trend} = .85$) or incrementalists of sexual offenders ($p = .28$; $p^{trend} = .30$).

Table 12. Number and percentage of ITHN and ITS0 incrementalists ordered by experience in forensic settings.

	<i>n</i>	0-10	11-20	21+
ITHN <i>N=201</i>	<i>Total</i>	174	20	7
	<i>Incrementalists</i>	138 (79.3%)	16 (80.0%)	6 (85.7%)
ITS0 <i>N=168</i>	<i>Total</i>	142	21	5
	<i>Incrementalists</i>	88 (62.0%)	13 (61.9%)	5 (100%)

H3: Implicit theories and attitudes towards ISOs

An independent samples *t*-test was conducted to see whether incrementalists and entitists of *human nature* differed on ATS-21 scores. Of the 201 participants, 160 were incrementalists and 41 were entitists. There were 7 outliers as identified by inspection of box plots. However, sensitivity analysis demonstrated that the removal of these outliers did not significantly affect the results. As such, no outliers were removed from the analysis. ATS scores were normally distributed for both incrementalists and entitists, as assessed by the Shapiro-Wilk test ($p > .05$) and by assessment of skewness and kurtosis (z-scores falling within ± 2.58). There was homogeneity of variances as assessed by Levene's test for equality of variances ($p = .68$). Incrementalists ($M = 54.38$, $SD = 11.02$) demonstrated higher scores and therefore reported more positive attitudes towards sexual offenders than entitists ($M = 43.70$, $SD = 9.96$), a statistically significant difference $M = 10.68$, 95% CI [6.95, 14.41], $t(199) = 5.64$, $p < .001$, with a large effect size, $d = 1.02$. Incrementalists reported significantly more positive attitudes towards ISOs compared to entitists on all three ATS-21 subscales, with the Trust scale demonstrating the greatest difference (Table 13).

An independent samples *t*-test was conducted to see whether incrementalists and entitists of *sexual offenders* differed on ATS-21 scores. Of the 168 participants, 106 were incrementalists and 62 were entitists. There was one outlier as identified by inspection of box plots. However, sensitivity analysis demonstrated that the removal of these outliers did not change the results. As such, this outlier was not

removed from the analysis. ATS-21 scores were normally distributed for both incrementalists and entitists of both human nature and sexual offenders, as assessed by the Shapiro-Wilks test ($p > .05$) and by assessment of skewness and kurtosis (z-scores falling within ± 2.58). There was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .07$). Similarly, incrementalists ($M = 57.47$, $SD = 10.01$) demonstrated higher scores and therefore reported more positive attitudes towards sexual offenders than entitists ($M = 43.35$, $SD = 12.03$), a statistically significant difference $M = 14.12$, 95% CI [10.71, 17.53], $t(166) = 8.18$, $p < .001$, with a large effect size, $d = 1.28$. Again, incrementalists reported significantly more positive attitudes towards ISOs compared to entitists on all three ATS-21 subscales, with the Trust scale demonstrating the greatest difference (Table 13).

Table 13. Means, Standard Deviations, and Group Differences on Each ATS-21 Subscale

ATS-21 Subscale	ITHN		<i>T</i>	<i>p</i>	<i>d</i>	ITSO		<i>t</i>	<i>p</i>	<i>d</i>
	Inc	Ent				Inc	Ent			
Trust	13.81 (4.67)	9.57 (3.90)	5.34	<.001	0.98	15.00 (4.30)	9.34 (4.47)	8.11	<.001	1.29
Intent	22.20 (4.15)	18.80 (3.85)	4.75	<.001	0.85	23.22 (3.50)	18.75 (4.78)	6.42	<.001	1.07
Social Distance	18.37 (3.86)	15.33 (3.75)	4.53	<.001	0.80	19.25 (3.81)	15.26 (4.21)	6.32	<.001	1.00

Discussion

Summary of findings

This study explored the ITs of professionals working in forensic mental healthcare settings from various disciplines. The key aims were to examine the proportion of incremental and entity theorists amongst professionals, whether several demographic and person-related factors were associated with ITs and whether attitudes towards ISOs differed by implicit theory type.

In line with H1, there were more professionals who identified as incrementalists than entitists in both their ITs of human nature in general and their ITs of sexual offenders specifically. Interestingly (but not surprisingly) there was a larger proportion of incrementalists of human nature than there were incrementalists of sexual offenders. However, incrementalists of sexual offenders made up almost two thirds of the ITSO sample. This contrasts with findings by Harper and Bartels (2018) who reported more entitists than incrementalists of both human nature and sexual offenders, where entitists of sexual offenders made up almost two thirds of their ITSO sample. This suggests that there is likely a higher proportion of incrementalist thinking amongst professionals working in forensic mental healthcare settings compared to the general public. Akin to the attitudinal literature, there may be something about increased exposure to people who commit crimes more generally that promotes beliefs that these individuals can change their lives with hard work and effort. Alternatively, people who hold these beliefs about people in general may gravitate more towards change-oriented careers.

These findings are important considering that the social and therapeutic climate influences outcomes for clients in forensic healthcare settings (Tonlin et al., 2012) including treatment outcomes (Beech & Hamilton-Giachritsis, 2005). As such, how professionals think about ISOs may play a pivotal role in successful treatment and rehabilitation outcomes. These findings are promising as it would be hoped that those working in forensic contexts who are in close proximity to ISOs hold beliefs in line with the prospect of change, considering the key goal when working with ISOs is to aid them with the tools to change their ways and desist from offending.

This coincides with findings from Blagden et al. (2016) who explored the experiences of both prisoners and staff in a therapeutically oriented sexual offender prison via a mixed method study. Although they did not report proportions, the authors indicated (both quantitatively and qualitatively) that staff held beliefs that offenders can change their ways. Interestingly, within the qualitative strand of their analysis, they found that it appeared important to ISOs that this was reflected back to them by professionals. Although the current study's findings are positive regarding proportionality of incremental theorists amongst professionals, an important but missing element of the implicit theory literature in relation to clinical practice may include the importance of reflecting incremental views back to clients.

Regarding H2, there were no differences in the proportion of incrementalists and entitists of both human nature and sexual offenders based on age, gender, sexual victim status, experience in mental health settings, and experience in forensic settings. This suggests that these factors are likely not pivotal to what type of implicit theory one subscribes to. The findings may indicate that professionals are more able to maintain strong ethical positions and principles related to an offender's capacity to change, despite personal factors such as experiencing an event as distressing and life changing as having been a victim or knowing someone close who has been a victim of a sexual crime, or even their time spent working therapeutically in forensic environments.

Research suggests that changes in the ways individuals working with ISOs think about them, through sensitisation (e.g., form having been or known a victim) or conversely desensitisation (e.g., exposure in a professional capacity) for example, may disrupt or undermine objective evaluation (Ellerby, 1997; Moulden & Firestone, 2010). As such, to uphold the principle of justice is to ensure that professionals can recognise potential biases and limitations within themselves to protect the client from the potential impact and provide services accessible to all who require it (Moulden & Firestone, 2010). The current findings may suggest that professionals are able to acknowledge the potential impact of person-related factors on their beliefs about change whilst maintaining their implicit beliefs, the proportion of which were more incremental in nature. In addition, with regards to time spent working in mental health and/or forensic settings, this may place the

aforementioned discussion into context in that length of time working in these settings may not necessarily promote incrementalist thinking, rather individuals that think this way are drawn to professions that involve helping people to change their ways.

In contrast to Harper and Bartels (2018) who found an increased prevalence of entitists of sexual offenders amongst tabloid readers and an even split amongst broadsheet and dual readers, the current study observed an even split of entity and incremental ITs (for both human nature and sexual offenders) amongst tabloid readers, but a higher proportion of incrementalists amongst broadsheet and dual readership groups. The overly hostile and judgemental ways in which tabloids tend to depict ISOs may lead to more negative perceptions in comparison to broadsheet readers where information is more balanced (Harper & Hogue, 2015b). This may contribute to the development of increased entitativity within the general public whilst having less of an impact when it comes to professionals working in forensic mental healthcare settings. This may suggest that professionals are able to maintain a degree of incrementalist thinking even when exposed to sensationalised and essentialised narratives about ISOs. This could be indicative of a less biased sexual offender schema.

Speaking further to the idea that profession may influence and promote incremental ITs, the findings showed that across the 7 disciplines, all professionals consisted of a higher proportion of incrementalists than entitists apart from the HCSW group, who consisted of a higher proportion of entitists than incrementalists. Psychologists were significantly more likely to be incrementalists of ISOs and therefore more likely to believe ISOs can change compared to HCSWs and nurses. Education may explain these differences as research suggests that those with higher educational attainment display less negative views towards ISOs (Malinen, Willis & Johnstone, 2014; Willis, Malinen & Johnstone, 2013). As such, it may be that education has an influence on implicit theories, with those with higher educational attainment more likely to display growth mindsets compared to those with lower educational attainment.

The findings also align with the attitudinal literature, reflecting how professionals taking on more direct intervention work with ISOs tend to exhibit more positive

attitudes (Kjelsberg & Loos, 2008; Sanghara & Wilson, 2006; Simon, 2010). As such, there may be something role related which could explain why psychologists are more likely to be incrementalists. For psychologists working in forensic settings, a key aim is to elicit some sort of behaviour change that improves well-being and reduces risk to the public (Birgden, 2008). As professionals who are invested in delivering change-focussed interventions, confirmation bias (Neal & Grisso, 2014) could be at play; psychologists may exhibit more optimism regarding change (i.e., growth mindset) because they believe their interventions work and therefore change must be possible.

Exposure to ISOs is considered the single factor that has consistently been linked to more positive views towards them (Challinor & Duff, 2018; Harper et al., 2017). However, the current study found that nursing staff (HCSWs and nurses) who represent professionals that likely spend the most time with ISOs are more likely to take the stance that they are unable to change. Compared to other disciplines, nursing staff tend to be subject to challenging behaviours from patients in forensic mental health settings such as threats, physical violence, sexually inappropriate comments and touching, and fear of aggression and violence occurring (Brophy et al., 2018). These types of experiences have been associated with increased levels of burnout amongst nursing staff (Rose et al., 2013) which may contribute to a diminished ability to hold in mind the prospect of change. As research suggests that effective treatment for ISOs will always somewhat rely on the positive support of non-therapy staff who can motivate, encourage, support and provide opportunities for ISOs to consolidate what they have learnt from treatment (Ware et al., 2012), the current findings may have important implications for the effectiveness of their day-to-day care and therefore rehabilitation. It may be that developing policies that mitigate burnout and improve the working environment, including increasing feelings of safety and positive therapeutic atmosphere (Berry & Robertson, 2019) may free up mental space for staff to foster growth mindsets of ISOs.

Finally, supporting H3, professionals holding incremental ITs expressed more positive attitudes towards ISOs than professionals holding entitist ITs. This finding was observed across both implicit theory domains. When looking at the subscales of the ATS-21, the largest attitudinal difference between incrementalists and

entitist was found on the Trust scale, suggesting that incrementalists who believe people have the capacity to change, are more trusting towards ISOs compared to entitists. Trust is important as it could impact upon an MDT's willingness to take positive risks. This may be critical to the successful rehabilitation of ISOs considering positive risk-taking promote patients' sense of responsibility, autonomy and personal growth (Robinson et al., 2007; Sustere & Tarpey, 2019). The aforementioned needs can be likened to those of the Good Lives Model (GLM; Ward & Stewart, 2003), an evidence-based directive for sex offender treatment (Laws & Ward, 2011) where emphasis is placed on equipping ISOs with the skills required to attain primary goods without offending. As such, professionals with more of a fixed mindset may exhibit less trust in ISOs which may affect their willingness to make decisions that support rehabilitation.

The findings are also in line with those demonstrated by Harper and Bartels (2018) and Schumann (2013) within community samples, but with higher attitudinal scores. Moreover, slightly larger effect sizes were observed when the sample was split by ITs of sexual offenders compared to ITs of human nature. This suggests that the type of IT one subscribes to influences attitudes more when considering their ITs about ISOs specifically. Interpreting mean attitudinal scores within the context of the ATS-21 scale, individuals scoring 5 (strongly agree) on all ATS-21 items would obtain a mean score of 84 whereas scoring 4 (agree) would yield a mean score of 63. Scoring 3 (undecided) on all items would yield a mean score of 42, and scoring 2 (disagree), a mean score of 21. As such, incrementalists of human nature and sexual offenders were more positive in their attitudes but not overly positive ($\bar{x} = 54.38$ and $\bar{x} = 57.47$ respectively). This is not to say that this is a drawback. Attitudes towards ISOs may be best represented by an inverted U-shaped curve, in that strong attitudes whether positive or negative may have an adverse impact on treatment and rehabilitation efficacy. In context, overly negative attitudes may hamper the therapeutic relationship, a critical component of effective treatment, whilst overly positive attitudes could impact the maintenance of professional boundaries and in turn influence safety and security around risk-management decisions (Harper et al., 2017). Nevertheless, it is clear from the current findings that incremental ITs appear to promote moderately positive attitudes towards ISOs compared to entity ITs. This could suggest that

incrementalist professionals sit somewhere near the centre of the U-shaped curve in relation to attitudes.

It is crucial for professionals working with ISOs to hold views that support their rehabilitation (e.g., Marshal, 2005; Ware et al., 2012) and it is promising to observe the levels of incremental thinking amongst the current professional sample which may represent another important factor that can impact upon attitudes. Furthermore, the implicit theory literature suggests that not only do ITs impact upon attitudes towards offenders, they can also lead to harsher and more punitive judgments and decision-making (see chapter two). Existing research shows how holding a fixed view of an individual's characteristics not only leads to more negative attitudes (Tam et al., 2013; Tan et al., 2016; Rade et al., 2018a, 2018b), it also leads to more punitive judgements (Evans, 2017; McKinsey 2021; Weimann-Saks et al., 2019; Williams, 2015), and reduced rehabilitative support (Gervey et al., 1999, Lehmann, et al., 2020; Moss et al., 2019; Peleg-Koriat et al., 2020; Wakai, 2020). These findings also extend to those about ISOs specifically (Harper & Bartels, 2018; Schumann, 2019) although research with this offender group is limited. As such, ITs may have implication for clinical decision making which is particularly important within forensic practice where professionals are laden with the responsibility of making decisions about risk, treatment, and release into the community.

Limitations and future directions

Overall, the current study builds on previous but limited research with regards to the impact of ITs on attitudes towards ISOs. The findings build on the wider implicit theory research regarding offenders in general, generating findings specific to ISOs. The current study also builds on that of Harper and Bartels (2018) using a professional rather than community sample and addresses the limitations of the study by Blagden et al. (2016) by understanding professionals' ITs without the confounds of the offenders' beliefs themselves. However, there were limitations to the present study.

Several of the associations between demographic factors and ITs did not reach significance for H2. It is also of note that although the association between implicit

theory and newspaper readership were in a similar direction to previous research, the data did not reach significance for the ITs of sexual offenders group. Therefore, it is possible that there is no real association in the population.

For some analyses, groups were small which will have had an impact upon the reliability of the results. For example, when looking at potential differences in implicit theories between professions, doctors made up such a small proportion of the sample that may have affected the reliability and the generalisability of the findings. In forensic mental health settings, psychiatry often play an important role within the MDT in that they are often a clients allocated responsible clinician and therefore give the final 'stamp of approval' on decisions made by the MDT. As such, future research could focus on recruiting more participants from this discipline.

Similarly, some group sizes were small when looking at the association between ITs and experience in mental health. A total of 129 participants had 0-10 years of experience, whilst only 19 had 11-20 years, 8 had 21-30 years and 4 had 31+ years of experience. In the case of smaller groups, the addition or subtraction of one participant has a large effect on the proportion of incrementalists within that group. As a result, the precision of an estimate of proportions is reduced and therefore one cannot have much confidence in results based on very small sample sizes (Barceló, 2018; Taboga, 2021). Moreover, it is important to hold in mind that the current sample did not reach power with regards to adequate sample size. As such, future studies should aim to further examine these associations with a larger sample size to observe (more reliably) whether a true association exists.

Whilst significant differences in implicit theory orientation were found between psychologists and nursing staff, it is possible that psychologists may have been subject to socially desirable responding. This is unsurprising as topics such as those that are sensitive and socially contentious (i.e., sex crime) are more susceptible to socially desirable responding than others (Kreuter, Presser & Tourangeau, 2008). Due to the rehabilitative and change-oriented nature of their roles, psychologists may have felt more compelled to demonstrate a growth-mindset about ISOs, in order to present a more favourable image rather than one at odds with rehabilitation. As such, subscription to growth mindsets may actually

reflect a professionals attempt to resolve cognitive dissonance (Festinger, 1957) as opposed to their true beliefs. Future research may look at pre-screening and excluding socially desirable respondents to ensure they do not bias the findings.

Where holding ITs (namely entity theories) can lead to the formation of stereotypical, prejudicial and discriminatory behaviours towards others, it may be beneficial for future research to further investigate this in relation to ISOs. This could be done using the Perceptions of Sexual Offenders Scale (PSO; Harper & Hogue, 2015c) defined as a measure of perceptions which are more akin to stereotypical views comprised of knowledge-based attributions (Jussim, 2012), unlike attitudes whereby others are evaluated with a degree of favour or unfavour (Eagly & Chaiken, 1993). Usage of the PSO has been recommended as an outcome measure to examine the impact of different experimental stimuli, whilst controlling for baseline attitudes (Harper et al., 2017). Future research could use this method to examine the impact of ITs on professionals' perceptions of ISOs, alongside examining possible discriminatory behaviour as a result of ITs by using other outcome measures reflecting judgments that are clinically relevant to professionals in forensic mental healthcare settings (see chapter four).

Conclusions

Understanding professionals' attitudes towards ISOs and possible underpinning factors is important for the effective treatment and rehabilitation amongst this group. The current study concludes that professionals working in forensic mental healthcare settings tend to think more incrementally about ISOs which indicates that they believe that ISOs have the ability to change their behaviour. Incrementalism amongst professionals also corresponds with more positive attitudes towards ISOs, including a greater degree of trust towards them. For the most part, professionals seem to be able to maintain strong ethical positions and principles related to an offender's capacity to change, despite personal factors. However, profession appears to influence what type of implicit theory one may hold. The findings have implications for promoting incremental thinking whilst supporting professionals who may be more influenced by negative interactions with ISOs due to the nature of their role. This could be done through clinical supervision or training. Although the current study focussed on ITs in relation to attitudes, of interest would be whether ITs influence how people behave towards ISOs. As such, future studies could examine whether ITs impact upon clinically relevant judgements in forensic mental health settings.

CHAPTER FOUR

The impact of implicit theories on professional decision making for individuals with sexual convictions.

Abstract

The impact of person-related factors on professionals' judgements of individuals who sexually offend (ISOs) is of clinical importance due to the serious implications that biased decision making can have on outcomes for ISOs. Research suggests that implicit theories, the extent to which one believes an individual's characteristics are fixed (entitists) or malleable (incrementalists), can impact one's attitudes and judgements of individuals with criminal convictions. However, there is a dearth of knowledge about the impact of implicit theories on professional decision making and responses to ISOs in particular. The current study looks to explore the impact of implicit theories on risk management judgements made by forensic mental health professionals and the judgements they may come to about their offending behaviour. Professionals working in inpatient forensic mental health services from a range of disciplines ($N = 228$) completed a battery of measures including the 'implicit theories of sexual offenders' measure and were asked to make risk management judgements following a hypothetical sexual offence scenario. In line with findings from community samples, forensic professionals who believe characteristics are malleable (incrementalists) make more positive risk management judgements regarding ISOs than those who believe ISOs are fixed in their ways (entitists), irrespective of offence characteristics. Attitudes are associated with more positive evaluations amongst incrementalists and more negative evaluations amongst entitists, suggesting they may moderate the effect of implicit theories on professionals' judgements. However, professionals do not appear to rely on their implicit theories to make judgements about the causes of offending behaviour. The findings provide a platform for future research.

Introduction

Professionals working in forensic settings are tasked with the role of making decisions about ISOs. From judges imposing sentences, the courts imposing hospital orders, to psychologists completing assessments of risk and social workers protecting vulnerable people from harm, professionals from many disciplines working with ISOs make decisions which impact their lives in many ways. As such, there is benefit in further understanding the factors that may impact the judgements professionals make about ISOs.

Cognitive bias in forensic evaluation

Despite the use of empirical literature and evidenced based tools to guide forensic assessment and decision-making, forensic practitioners can fall prey to cognitive bias (Vredeveltdt et al., 2022). Bias can be defined as any systematic factor that determines judgement other than the truth (West & Kenny, 2011). Cognitive bias may emerge as a consequence of the fact that human brains do not have an endless capacity for processing information and therefore people use cognitive strategies or heuristics to manage cognitive load (Tversky & Kahneman, 1974). Heuristics are a natural consequence of the need to process complex and ambiguous information and whilst they may help us to quickly draw conclusions and solve problems, particularly in the face of limited time and information, in some situations (i.e., forensic practice) this can be risky and lead to inaccurate judgements about others (Tversky & Kahneman, 1974). There are various cognitive biases underlying human cognition that can pose challenges for forensic practitioners.

Confirmation bias, the tendency to seek or interpret information in ways which align with existing beliefs or hypotheses (Nickerson, 1998), has the potential to undermine objective forensic evaluation. Neal et al. (2017) found evidence of confirmation bias amongst forensic psychologists' diagnostic reasoning. Participants who were asked to provide a diagnostic hypothesis about a person represented in a vignette tended to test this hypothesis by choosing information that confirmed their initial hypothesis rather than information that might have disconfirmed it. Forensic professionals may frequently find themselves in

situations which may increase susceptibility to confirmation bias, where their conclusions drive their observations, rather than the other way around. For example, when tasks are allocated under strict time constraints or sources of opinion are already embedded within referrals, forensic professionals may look for information to confirm one's hypothesis or intuition because it's quicker and less effort intensive (Neal & Grisso, 2014). This poses a problem for decision-making in forensic settings as this means conclusions are being driven by inadequately formed hypotheses rather than data and expertise.

Another example of bias within legal psychology concerns the tendency for expert professionals to reach conclusions that support the party who retained them, known as the allegiance effect. Murrie et al. (2013) asked forensic psychologists and psychiatrists to review offender case files, stating that they were either consulting for the defence or the prosecution. The authors found an allegiance effect; those who believed they were working for the prosecution tended to assign higher risk scores to offenders on commonly used risk assessment tools compared to those who believed they were working for the defence. Similarly, Brackmann et al. (2016) found that psychologists acting as expert witnesses, tasked with assessing the validity of witness statements, arrived at two opposing conclusions whilst utilising the same assessment methodology and being presented with the same information about the case. Interestingly, of the two expert witnesses, one was hired by the defence and the other, by the prosecution. These findings demonstrate how decision-making amongst forensic experts can be influenced by irrelevant information. As such, it is important to understand the contexts and situations in which cognitive bias may emerge as doing so will help to minimise the likelihood and impact of bias on forensic professionals' judgements (Neal et al., 2018).

Professional judgements and decision-making

Prior research has demonstrated how negative personal feelings, attitudes, and emotions can impact on professionals' judgements of risk. This sheds light on problems with 'biasability' and reliability amongst forensic evaluators, highlighted in Dror's (2016) Hierarchy of Expert Performance. Blumenthal et al. (2010) asked

a sample of mental health professionals to rate four vignettes according to perceived level of risk, where the vignettes varied in design to include information likely to maximise or minimise emotive and actuarial information. They found that mental health professionals tended to disregard actuarial information and were disproportionately influenced by emotive information. De Vogel and De Ruiter (2004) found that HCR-20 assessors were more likely to give lower risk judgements when experiencing positive feelings (helpful, happy, relaxed) about the offender, compared to when feeling controlled or manipulated by them. Similarly, Freeman et al. (2010) found that when forensic psychologists were asked to make risk estimates about ISOs who deny their offence, likelihood of release from custody was dependent on the psychologist's beliefs rather than accurate calculations of risk by means of clinical judgement and/or actuarial tools. Freeman et al., (2010) also found variability with regards to the impact of denial on recidivism, highlighting a reliability issue.

In contrast, Tan (2014) found that evaluator-specific factors such as personal attitudes, ambiguity, case limitations, external forces and context-specific influences do not have a significant influence on judgements of risk for ISOs, nor does the professional's age or years in practice. Tan (2014) concluded that professionals in forensic practice do not allow personal factors to influence their professional judgement; rather, they are able to maintain objectivity when conducting assessments of risk. However, this study is unpublished and therefore has not been peer reviewed. With a small sample size of 35 professionals and therefore low statistical power, more peer-reviewed research in the area with larger sample sizes is needed to draw accurate conclusions. More recently, Browne (2017) recruited a sample of paraprofessionals working or studying in the disciplines of law, psychology teaching, and nursing and found a negative correlation between attitudinal scores and risk judgements of a hypothetical sexual offence scenario. The lower (and therefore more negative) the attitudinal score, the higher the judgements of risk assigned to a hypothetical perpetrator. However, the sample was in part made up of university students. Although representative of individuals who are likely to go on to have contact with and make important decisions about ISOs in a professional capacity, the study cannot be generalised to those actually working in forensic contexts.

Harper and Hicks (2022), on the other hand, recruited a sample of forensic professionals and psychology students and looked at how their attitudes towards ISOs impacted hypothetical risk judgements. They found that the more negative participants were in their attitudes, the higher levels of estimated risk they assigned to the offender they were asked to assess, irrespective of the type of offender presented in the case vignette (adult male, adult female, juvenile male). This may reflect the idea that as research progresses, so does our understanding about the drivers of behaviour and effective treatment strategies. As such, professionals can make judgements that are more aligned with the literature and empirical evidence, and less influenced by irrelevant information. However, of significance here is the distinct relationship between negative attitudes towards ISOs and increased judgements of risk amongst forensic professionals that is ever present. After all, impartiality and objectivity are two important requirements within effective professional practice (Ward & Salmon, 2011). These findings are of concern due to the potential harm that can be caused when decisions are driven by personal bias. As bias is often unconscious and outside one awareness, understanding and dealing with implicit bias likely poses the biggest challenge for forensic practitioners (Neal & Grisso, 2014).

Implicit theories and decision-making

Implicit theories (ITs), referring to the extent to which one believes a person is fixed in their ways (entitist) or can change (incrementalist), reflect automatic processes that operate outside one's conscious awareness (Dweck et al., 1995a). As demonstrated in chapter two, ITs play a role in responses to offenders. Incrementalism is associated with less punitiveness and more rehabilitative support for offenders. Compared to entitists, incrementalists are less likely to ascribe harsh sentences to offenders (Evans, 2017; Tam et al., 2013; Weimann-Saks, 2019), are less punitive in relation to sentencing and risk judgements (Harper & Bartels, 2017), advocate for less punitive and more rehabilitative sentences (Harper & Bartels, 2018), are more likely to believe that offenders should have access to job training, education, drug treatment and early release (Rade et al., 2018a, 2018b; Tam et al., 2013) and encourage increased access to employment when in the community (Lehmann et al., 2020; Williams, 2015). As such, research suggests that ITs may drive or inform the decisions people make

about offenders to some extent, with incrementalism associated with more favourable responses.

Although attitudes towards ISOs appear to be influenced by what type of implicit theory one holds (see chapter three), little is known about how ITs may impact outcomes-based evaluations and decision-making regarding ISOs amongst professionals in forensic mental healthcare settings. That is, whether ITs bias professionals' responses to ISOs. Aside from one study who recruited a sample of lawyers (Weimann-Saks et al., 2019), most of the research in this area has been based on community samples. Whilst community samples may be more representative of effects occurring amongst the public, it does not offer insight into how this underlying mechanisms may impact professionals working in forensic settings who are tasked with making several decisions about ISOs which impact directly on their treatment, rehabilitation, and reintegration. There is also limited research about how ITs may impact upon decisions made about different 'types' of ISOs specifically.

Offender characteristics and bias

As discussed in Chapters 1 and 3, Harper and Bartels (2017, 2018) have proposed that stereotypical media representations of ISOs contribute to the development of negative beliefs about ISOs and form a distorted 'sexual offender schema' underpinning people's evaluations. Within their community sample they found that, compared to incrementalism, entitism was associated with more punitive sentencing and higher risk scores, with the largest effect observed towards an adult male offender (prototypical representation) compared to a female and juvenile offender (non-prototypical representation). Here, offender characteristics moderated the relationship between ITs and outcomes. They attributed this finding to entitists' narrow view of sex offenders as prototypically male and therefore receiving the most punitive responses in comparison to those that deviate from the prototype (i.e., females and juveniles). They suggested that entitists' judgements about different types of offenders are influenced by the specific 'sexual offender schema' they hold in mind. However, they conducted further testing even though no interaction was found in the original analysis, which could be indicative of data dredging. They have also proposed that individuals who

reject social stereotypes such as professionals hold more positive beliefs and a less biased sexual offender schema. As such, it was of clinical interest to understand whether professionals are susceptible to this type of bias (i.e., representativeness) and whether this is associated with implicit theories and evaluations.

Forensic mental healthcare practitioners

Multi-disciplinary teams (MDTs) in forensic mental healthcare contexts are often comprised of psychiatrists, psychiatric nurses, psychologists, social workers and occupational therapists (amongst others) and are designed to provide comprehensive treatment for those accessing the service. It is well documented that MDTs have the potential to improve the quality-of-service user care by including the perspectives and expertise of professionals from different disciplines (Department of Health, 2007; Wagner, 2004). As such, these professionals represent an important group of which understanding the factors that may bias decision-making is of importance and could have significant clinical implications, particularly with regards to risk; a topic which is often the focus of MDT meetings (Melvin et al., 2020). Decisions made based on personal bias or characteristics that have no empirical grounding could lead to inaccurate treatment planning or sequencing, misjudgements of risk, obstructed progress, and increased detention length or delayed release.

Research suggests that whilst bias awareness amongst forensic practitioners can range from complete dismissal to inevitable, forensic practitioners tend to be more concerned about bias in their colleagues' work than in their own (Neal & Brodsky, 2016). This is known as the 'bias blind spot' (Pronin & Kugler, 2007). Zapf et al. (2018) found evidence of the bias blind spot amongst forensic evaluators who could recognise bias as a concern but did not see themselves as vulnerable to bias. In addition, Zapf et al. (2018) found that over 87% of forensic evaluators believed that consciously putting aside any pre-existing beliefs and expectations (i.e., willpower) would result in being less affected by these beliefs, thereby reducing bias. However, as bias is often implicit and outside conscious awareness, this could mean that some forensic practitioners may not take effective necessary steps to minimise bias in their own evaluations. This awareness is necessary to

ensure clients are protected from the potential negative impact of bias on ISOs; moreover, it is an ethical issue that is critical to practitioner competence which will directly affect treatment efficacy (Moulden & Firestone, 2010). Research has demonstrated that compared to those who have not received training, forensic evaluators who have received training aimed at increasing the understanding and awareness of the potential impact of bias are more likely to view bias as a cause for concern and that their prior beliefs and expectations can affect their evaluations (Zapf et al., 2018). Opportunities for education and professional development also allows opportunities to reflect on and challenge developing biases towards ISOs (Moulden & Firestone, 2010). As such, if implicit theory subscription influences forensic practitioners' judgements and decisions-making, this could be considered an important area in which to raise practitioners' awareness.

The present study

Given the paucity of research around ITs and their impact upon professional evaluations and decision-making, the present study aims to investigate whether professionals use ITs to organise their thinking about ISOs when making decisions relevant to their clinical practice such as those related to risk management. The study focused on professionals that comprise the MDT in forensic mental health hospitals; services that ISOs often access but where research specific to ISOs and professionals' decision making is lacking. This includes professionals from several disciplines (healthcare support workers, nurses, doctors, psychologists, occupational therapists, social workers and management) who contribute to the treatment planning and management of ISOs. Furthermore, as offence characteristics appears to somewhat influence responses amongst community samples, it was of interest to see whether this effect exists amongst professionals. Although Harper and Hicks (2022) have recently examined forensic professionals' risk judgements and the impact of offence characteristics, they did not look at the impact of professionals' ITs. Furthermore, Harper and Bartels (2017, 2018) looked at the impact of ITs on sentencing and risk judgements but only in a community sample and so did not consider responses relevant to professionals in forensic settings. The current study adopts a similar methodology to the aforementioned studies to explore the following hypotheses:

Hypothesis 1: Professionals' evaluations of ISOs (as measured by the perception of sex offenders scale) will differ by implicit theory and offender characteristics (H1).

Hypothesis 2: Professionals' risk management judgments will differ depending on their implicit theory and offender characteristics? (H2)

Hypothesis 3: Professionals' explanations for ISOs' offending behaviour will differ depending on their implicit theory (H3).

Method

The current study was designed in tandem with the primary study described in chapter three and the current data was collected within the same survey. As such, where there is an overlap in methodology, the reader will be directed to chapter three for full details.

Participants

Participants were recruited in the same manner as in chapter three, using purposive sampling techniques. Participants represented several disciplines reflective of the MDT in forensic inpatient services. This included healthcare support workers (HCSWs), nurses, doctors, psychologists, occupational therapists, and managers. The final sample consisted of 228 participants ($M_{age} = 33.18$, $SD_{age} = 11.32$); 187 females, 38 males, and 1 non-binary. Two participants preferred not to disclose their gender. Of the 228 participants, 192 (84.21%) had previous experience working with ISOs. It was unknown whether participants had experience working specifically with the females and juveniles with sexual convictions. See chapter three for full details.

Of the 228 individuals who took part in the study, 168 participants remained in the ITs of sexual offenders (ITSO) analyses. This was because participants scoring between 3 and 4 on the implicit theories scale were excluded as they were deemed to be on the cusp of incrementalism/entitism. Participants' ITs of human nature were not used in the analysis of this study.

Materials

As described in Chapter 3, participants were asked to complete a *demographic questionnaire*, *implicit theory measures* (Harper & Bartels, 2018), and the *21-item attitudes towards sex offenders scale* (ATS-21; Hogue & Harper, 2019). See chapter three for full details.

Vignettes

Three hypothetical child sexual abuse vignettes (taken from Harper & Bartels, 2018) were used as the experimental manipulation to examine the role of ITs and offender characteristics on responses to ISOs. The vignettes were approximately 200 words each which was considered an appropriate length to reduce the risk of participants losing interest over time and responding carelessly by being too lengthy (Nosanchuk, 1972). Each vignette described a sexual offence committed against a child of the opposite sex. The only manipulations between vignettes were the gender or age of the perpetrator. That is, the vignette depicted an adult male, an adult female, or a male juvenile (aged 14 years) offender (Appendix M).

Risk management questions

Six questions related to risk management were chosen, reflecting the types of considerations professionals working in forensic settings would hold in mind. These were informed by case management planning considerations which appear on empirically validated risk assessment tools such as the Historical Clinical and Risk Management-20 Version 3 (HCR-20 V3; Douglas et al., 2014) and the Sexual Violence Risk-20 (SVR-20 V2; Boer et al., 2018). Risk assessments like these are often used in forensic inpatient settings to support risk management and are often discussed with the MDT as part of ward round meetings for all disciplines to contribute. The questions covered risk of reoffending, level of security required, severity of harm, imminence of future violence and the anticipated impact of pharmacological (medication) and psychological (therapy) interventions. Participants were required to respond to each question on an 11-point Likert scale ranging from 0 to 10, with higher scores indicating more negative judgements (Appendix N).

Explanations for offending

Taken from Harper and Bartels (2018), participants were asked to provide a qualitative account in a 'free text' box explaining why they felt the offence depicted in the vignette took place. This was considered particularly relevant to the current study as it could provide additional evidence for the implications of holding

different ITs of sexual offenders. Participants' qualitative explanations were independently classified by two raters as either a) "dispositional" where the behaviour was considered a reflection of who the perpetrator is as an individual, b) "situational" where external, situation-specific factors were viewed as integral to the commission of the offence, or c) "not clear" where a dichotomous classification was not possible. Cohen's κ demonstrated very good inter-rater agreement between the two raters, $\kappa = .84, p < .001$. Explanations that were initially classified differently were mutually agreed upon via thorough discussions.

Perceptions of sex offenders scale

The 20-item Perceptions of Sex Offender scale (PSO; Harper & Hogue, 2015c) is a self-report questionnaire which measures outcome-based judgements of sexual offenders (Appendix O). The PSO requires participants to rate their level of agreement/disagreement with statements regarding sexual offenders (e.g., Most sex offenders are unmarried men) on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree). The PSO consists of three subscales: sentencing and management (10 items), stereotype endorsement (5 items) and risk perceptions (5 items). Six items are reverse scored so that higher scores indicate more negative judgements; that is, more punitive sentencing, higher stereotype endorsement and inflated perceptions of risk across the subscales. Scores are summed and a constant of 20 removed, yielding scores ranging from 0-100. Higher scores indicate more negative perceptions of individuals who sexually offend. The PSO demonstrated excellent internal consistency ($\alpha = .86$) as a whole and within its subscales; sentencing and management ($\alpha = .91$), stereotype endorsement ($\alpha = .83$) and risk perceptions ($\alpha = .73$). Harper et al. (2017) have suggested that future research should aim to use the PSO as an outcome measure, after administering experimental stimuli (e.g., offence vignettes), to examine the impact of such stimuli while controlling for baseline attitudinal orientations using the ATS, addressed in this chapter.

Design and procedure

The study used a vignette approach to explore whether evaluations and judgements about ISOs differed by implicit theory and offender characteristics.

The study was an experimental between-subjects design. The independent variables were participants' implicit theories of sexual offenders (incrementalists vs entitists) and offender characteristics (adult male vs adult female vs juvenile male). The dependent variables were the risk management questions, the PSO, and explanations for offending. The ATS-21 scale was added to the analysis as a co-variate due to its relationship with ITs demonstrated in chapter three. The aim was to be sure that any relationships between ITs and outcome variables were due to the independent variable itself rather than baseline attitudes.

As described in Chapter 3, potential participants were invited to take part in a survey which was administered online through a direct URL link, distributed via email by each site's admin team. Participants interested in taking part clicked the URL link which took them to the first page of the survey and provided information about the study. If participants wanted to take part, they were asked to click the 'take me to the consent page' button and then 'yes - I want to take part'. They were asked to complete the demographic questionnaire followed by the two implicit theory measures (ITHN & ITSO) and the ATS-21, as described in chapter 3. Participants were then randomly allocated by survey software to one of the three vignette conditions. Upon reading the vignette, participants were asked questions around risk management, explanations for why participants thought the offender in the vignette committed the offence and finally they were asked to complete the PSO.

Results

H1: Implicit theories and PSO scores

A two-way ANCOVA was conducted to examine the effects of implicit theory and offender characteristics on PSO score after controlling for participants' attitudes towards individuals who sexually offend (i.e., ATS-21 Scores). There was a linear relationship between ATS and PSO scores for every combination of the groups of the two independent variables as assessed by visual inspection of a scatterplot. There was homogeneity of regression slopes as determined by a comparison between the two-way ANCOVA model with and without interaction terms, $F(5, 156) = 1.03, p = .40$. There was homoscedasticity within groups, as assessed by visual inspection of the studentized residuals plotted against the predicted values for each group. There was homogeneity of variances as assessed by Levene's test of homogeneity of variance ($p = .10$). There was one outlier in the data as assessed by 1 case with studentized residuals greater than ± 3 standard deviations. However, sensitivity analysis demonstrated that the removal of this outlier did not significantly affect the results. There were no leverage or influential points as assessed by leverage values and Cook's distance, respectively. Studentized residuals were normally distributed ($p > .05$) for all but 1 ($p = .003$) combination of the groups of the two independent variables, as assessed by the Shapiro-Wilk test. However, testing went ahead as the ANCOVA has been found to be fairly robust to deviations from normality (Levy, 1980).

Means, adjusted means, standard deviations and standard errors are presented in Table 14. There was no statistically significant interaction between implicit theory and offender characteristics on PSO scores, whilst controlling for the ATS-21, $F(2, 161) = .081, p = .92, \text{partial } \eta^2 = .001$. Therefore, analysis of the main effects for implicit theory and offender characteristics was conducted. The main effect of offender characteristics did not show a statistically significant difference in adjusted marginal mean PSO scores amongst the male, female and juvenile offender characteristics, $F(2, 161) = .18, p = .84, \text{partial } \eta^2 = .002$. However, the main effect of implicit theory showed a statistically significant difference in adjusted marginal mean PSO scores between incrementalists (40.73) and entitists

(44.77), $F(2, 161) = 7.38, p = .01$, partial $\eta^2 = .04$. PSO scores for incrementalists were 4.04 (97% CI, 1.10 to 6.98) lower than for entitists, suggesting that incrementalists were more positive in their evaluations of ISOs.

Table 14. Means, Adjusted Means, Standard Deviations and Standard Errors for Total PSO score by implicit theory and offender group.

PSO Total Score	Incrementalists			Entitists		
	Male	Female	Juvenile	Male	Female	Juvenile
<i>M</i>	38.60	34.38	38.39	51.44	49.95	52.08
(<i>SD</i>)	(8.74)	(10.23)	(11.99)	(12.33)	(12.18)	(11.42)
<i>M_{adj}</i>	40.47	40.79	40.92	43.97	45.51	44.81
(<i>SE</i>)	(1.33)	(1.33)	(1.41)	(1.93)	(1.82)	(1.66)

Note. PSO = Perceptions of Sex Offenders Scale; MO = Male Offender; FO = Female Offender; JO = Juvenile Offender. Lower scores = more positive evaluations.

Three one-way ANCOVAs were conducted to examine group differences between incrementalists and entitists within the PSO subscales. Means, adjusted means, standard deviations and standard errors are presented in Table 15. After adjustment for ATS-21 scores (co-variate), there was a statistically significant difference between incrementalists and entitists in 'Sentencing & Management' scores $F(1, 165) = 4.41, p = .037$, partial $\eta^2 = .03$, and 'Risk Perception' scores $F(1, 165) = 4.65, p = .033$, partial $\eta^2 = .03$. Incrementalists scored lower and therefore displayed more positive perceptions towards the sentencing and management of ISOs and the risk that they pose. There were no significant differences between incrementalists and entitists in stereotype endorsement scores $F(1, 165) = .60, p = .44$.

Table 15. Means, Adjusted Means, Standard Deviations and Standard Errors for PSO subscale score for incrementalists and entitists.

PSO Subscale Scores	Incrementalist			Entitist		
	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
<i>M</i>	12.58	8.37	16.00	22.55	9.16	19.53
(<i>SD</i>)	(6.63)	(4.15)	(3.99)	(9.98)	(3.88)	(3.45)
<i>M_{adj}</i>	15.47	8.44	16.79	17.60	9.04	18.19
(<i>SE</i>)	(.56)	(.42)	(.36)	(.76)	(.58)	(.49)

Note. Factor 1 = Sentencing and Management; Factor 2 = Stereotype Endorsement; Factor 3 = Risk Perception. Lower scores = more positive evaluations.

H2: Implicit theories and risk management judgements.

Due to the lack of difference in outcome PSO scores between the different vignettes in H1, results from all vignettes were analysed together. A series of Mann-Whitney U tests were conducted to determine if there were differences between incrementalists and entitists in their decision making about the perpetrator depicted in the vignette. This included the likelihood of reoffending, the level of security required to prevent further offending, the severity of harm caused to the victim, the imminence of sexual violence, and the likelihood they would benefit from therapy and medication. A non-parametric test was used because the data violated the assumption of normality. Distributions of scores for both groups of the independent variable (i.e., incrementalists and entitists) for each of the 6 offender ratings were similar, as assessed by visual inspection.

Mean rank scores (Table 16) were statistically significantly different between incrementalists and entitists for risk of *reoffending*, *imminence* of sexual violence, and treatment gains via *therapy*. Incrementalists indicated that perpetrator depicted in the vignette was less likely to reoffend, that reoffending would be less imminent and that they were more likely to benefit from psychological intervention. Mean rank scores were not statistically significantly different between incrementalists and entitists for levels of *security* required, the *severity* of harm caused or potential treatment gains via *medication*.

Table 16. Mean Rank Scores and Mann-Whitney *U* statistics for risk management judgements, by implicit theory.

	Mean Rank Score		<i>U</i>	<i>z</i>	<i>p</i>
	Incrementalists	Entitists			
Reoffending	77.50	96.47	4028	2.47	.01
Severity	80.96	90.55	3661	1.29	.20
Security	81.03	90.44	3654	1.22	.22
Imminence	78.84	94.18	3886	1.99	.05
Therapy	91.12	73.19	2584.5	-2.35	.02
Medication	83.73	85.81	3367.5	.27	.79

H3: Implicit theories and explanations for offending behaviour.

Of the 168 participants, 5 participants did not respond leaving 163 responses to classify. A total of 57 responses were classified as dispositional, and 46 responses were classified as situational. Responses that were unclear, including those considered a mixture of both dispositional and situational in nature, were excluded (60 responses).

A chi-square test was conducted between respondents' ITs of sexual offenders and explanations for offending. All expected cell frequencies were greater than five. Results showed that no statistically significant difference was found between participants' ITs and their explanations for the offending behavior of the perpetrator in the vignette, $\chi^2(1) = .97, p = .33$.

Discussion

Summary of Findings

The aim of the current study was to understand whether ITs held by professionals, impact upon their evaluations and judgements of ISOs with differing offence characteristics.

Regarding H1, the findings demonstrated that regardless of whether the perpetrator in the hypothetical scenario were a male, female or juvenile, professionals' evaluations of the offender differed based on the implicit theory they held. Those who tended to believe that individuals can change (incrementalists) came to more positive conclusions about the offender depicted in the vignette compared to entitists. Incrementalists were more lenient in terms of judgements of how ISOs should be sentenced and managed and on risk, suggesting that ITs do impact the judgements professionals make about the individuals they work with. The underlying belief that there is little that can be changed about ISOs leads to harsher evaluations. These findings were somewhat in line with findings by Harper and Bartels (2018) suggesting that ITs aren't just used by the general public to organise information which informs judgements, this also applies to individuals working in a professional capacity, despite forensic training and knowledge. However, it is important to note that effect sizes were small. As such, although there is a relationship between ITs and judgements, the relationship is not a strong one.

When comparing adjusted PSO scores (which control for attitudes) with unadjusted scores, incrementalists' scores decreased once their attitudes were reflected in their PSO scores (i.e., when moving from adjusted to unadjusted scores) meaning their evaluations became more positive. Conversely entitists' PSO scores increased once their attitudes were reflected in their scores, meaning their evaluations became more negative. In other words, although statistically different regardless of attitudes, when attitudes were not controlled for, incrementalists' evaluations of ISOs were even more positive, and entitists even more negative. This can be understood in the context of the findings from chapter three in that incrementalism is associated with more positive attitudes towards

ISOs whereas entitism is associated with more negative attitudes towards ISOs. It may be that those who think incrementally about ISOs are more positive in their attitudes and are therefore more positive in their evaluations.

Interestingly, there were no differences between incrementalists and entitists on the stereotype endorsement factor of the PSO, which suggests that regardless of whether professionals believed that ISOs can change their ways or not, they were not more or less likely to subscribe to or make stereotypical evaluations of ISOs. This is also observed in the fact that PSO scores on this factor did not differ based on more stereotypical representations of a 'sex offender' (adult male) compared to less stereotypical representations (adult female and juvenile male). This is a positive finding in terms of the implications for ISOs as prior research suggests that entitists are more prone to stereotyping (Plaks et al., 2001). This was not the case in the current study.

Regarding H2 and professionals' risk management judgements, compared to entitists, professionals who held the underlying belief that ISOs can change their ways made more positive judgements about ISOs. That is, compared to entitists, incrementalists made judgements that the offender in the vignette was less likely to reoffend, that sexual violence was less imminent, and that the offender would benefit from therapy. This is an important finding when professionals are making decisions about ISOs as an MDT, as the extent to which professionals hold an incremental or entity theory could have implications for decisions about suitability and anticipated benefit of treatment which has a direct impact upon risk, and progression through and discharge from services. In addition, decisions about risk of reoffending and imminence may have implications for what amenities and resources ISOs are allowed access to (e.g., Section 17 leave) and therefore the ability of ISOs to progress through their detention.

The impact of ITs on decision-making may also raise concerns where different professionals with opposing ITs make different recommendations within the team. That is not to say professional disagreement is in and of itself problematic. In fact, professional disagreement can be useful in that it forces professionals to think carefully about decisions by considering all factors, evidence, and points of view. However, when decision making is in part driven by one's global belief about a

person's malleability, this could pose challenges for professional decision-making; for example, contributing to or exacerbating convoluted processes like team splitting or a change in hierarchy and subsequent reduction in collaboration in the face of disagreement (Haines et al., 2018). This could be particularly relevant to ISOs with more complex diagnoses such as Autism Spectrum Disorder or Personality Disorder where process like splitting are common and who have cognitive and behavioural profiles which are often instinctually responded to with pessimism and cynicism about change (e.g., Adshead & Jacob, 2009; Melvin et al., 2020).

The finding that incrementalists and entitists differed in their judgements on the benefits of psychological intervention but not pharmacological intervention is interesting. As both are associated with change, one may expect incrementalists to be more open to medication as a possible source of change compared to those who believe characteristics are fixed and unchangeable (i.e., entitists). It may be that the use of medication was not well defined in the study and that response accuracy may improve with more clarity over the intended uses of medication. For example, referring to specific pharmacological interventions such as Medication to Manage Sexual Arousal (MMSA) or medication to treat a particular underlying mental health condition defined in the vignette.

Finally, regarding H3 there was no association between ITs and their explanations for sexual offending as either 'dispositional' (where behaviour is considered as a reflection of the offender as an individual) or 'situational' (where behaviour is seen as a function of situation specific factors). This contrasts with previous research where entitists tend to have a greater tendency to use traits to explain behaviour whereas incrementalists tend to understand others' behaviour in more mediational terms (Hong, 1994). In line with these early findings, Harper and Bartels (2018) demonstrated how entitists are more likely to give dispositional explanations for offending behaviour and incrementalists, situational explanations. This effect was not observed amongst professionals in the current study. Interestingly, upon observation of the qualitative content, many responses could not be classified due to lack of clarity around their explanations as dispositional or situational. For example, some participants made a combination of situational and dispositional attributions stating the offending occurred due to "early sexual trauma" or "lack

of knowledge about sexual boundaries” whilst also being due to his “impulsivity”, “sexual deviancy” or “having the opportunity”. Furthermore, many participants’ responses were not classified as they had stated there was not enough information to hypothesise causes of offending and that they would need to speak to the individual to get more information and develop a formulation. This suggests that many forensic professionals amongst this sample were not subject to availability bias, more specifically ‘what you see is all there is’ (Neal & Grisso, 2014). These findings are promising as it appears that professionals do not rely on their ITs to make judgements about the causes of behaviour. Rather, they are interested and invested in a range of different explanations and finding out more information. This contrasts previous research which suggests that entitists make extreme trait judgements based on limited information (Levy et al., 1998). As such, working in forensic contexts may shield against the possible effects of harmful underlying entity theories.

Implications for forensic practitioners

The findings indicate that forensic professionals could benefit from increased awareness of the presence and potential impact their ITs could have on both their attitudes and their judgements about ISOs as this appears to be a factor that introduces bias to decision-making. It is unlikely that professionals are aware of their own theories of change or the impact they may have on how they respond to ISOs, considering that ITs operate outside conscious awareness (Dweck et al., 1995a). As such, developing an understanding of ITs and the association between entity ITs and harsher judgements and evaluations that do not support rehabilitation is recommended. Self-reflection and awareness are important in providing ethical care to clients (British Psychological Society, 2021). However, research suggests that some practitioners are susceptible to the ‘bias blind spot’ and are less concerned about their own potential biases compared to that of others (Zapf et al., 2018). As such, training, supervision and reflective practice offer spaces where the concept of implicit theories and their impact can be brought to the attention of forensic practitioners. Here, practitioners can be encouraged to explicitly reflect on their own theories of change in relation to ISOs and how these could impact upon the decisions they make. Providing regular opportunities for professional development and education in this way may also help practitioners to

feel more supported in working with such a challenging population, reducing the risk of burnout and potentially freeing up mental space where one can think more incrementally. Although this will be helpful for all, it may be particularly helpful for those with fixed mindsets indicating where services could prioritise their resources.

Limitations and future directions

Regarding generalisability, 82% of the sample were female, therefore the results are unlikely to be representative of all forensic professionals. In addition, participants were asked to make risk management judgements in a way that was not particularly reflective of how decisions are achieved in real world settings. For example, professionals are often privy to much more historical and contextual information about clients prior to decision making. Future research may benefit from using real rather than hypothetical scenarios and examining the impact of professionals' ITs on decision making when presented with more information, improving ecological validity. Furthermore, as research suggests that, compared to incrementalists, entitists tend to make quicker and more extreme judgements based on limited information, it may be interesting to introduce 'amount of information' as an experimental manipulation to understand whether this interacts with ITs in terms of its effect on responses.

Although risk management judgements were designed around structured risk assessment tools which the MDT discuss, consider and contribute to in forensic mental health settings, the study failed to look at more practical and imminent decision making that occurs amongst the MDT and that may affect one's rehabilitative progression. As such, future studies may benefit from looking at other types of judgements relevant to the progression of ISOs' rehabilitation such as authorisation of Section 17 leave, conditions around relationships and autonomy in certain activities. Future research may also benefit from looking at judgments relative to the specific discipline in question.

Finally, due to the relationship between ITs, attitudes and judgements, future research could be designed to examine the impact of priming incremental ITs on responses to ISOs. For individuals with criminal convictions more generally,

research has demonstrated that incremental or growth mindsets can be successfully primed (Peleg et al., 2020) and at least one study has demonstrated how growth-mindset enhanced interventions can lead to reduced punitiveness and increased support for alternatives to incarceration (McKinsey, 2021). Further exploration would advance knowledge in the area; that is, whether outcomes for ISOs can be improved by encouraging incremental thinking amongst professionals.

Conclusions

The current study sought to understand whether professionals in forensic mental healthcare settings are guided by ITs when making risk management judgements about ISOs. The purpose has been to provide a better picture of the possible relationship between ITs and responses to ISOs as an emerging area of interest in the forensic field. Findings demonstrate that ITs do have an impact on risk management judgements, where incrementalist demonstrate more positivity and leniency in their judgements than entitists. Attitudes towards ISOs appear to influence the strength of this relationship suggesting that attitudes are an important area of research. However, forensic professionals may still benefit from increased awareness of the impact of their underlying beliefs about change for ISOs. Future research in this area would create greater insights into the relationship between ITs, professional's attitudes and decision-making adding knowledge to the field. This could determine whether mindset enhancing interventions amongst professionals would be useful in improving outcomes for ISOs.

CHAPTER FIVE

The 21-item Attitudes Towards Sex Offenders Scale – Short Form: A Psychometric Critique

Abstract

A person's 'attitude' is a difficult concept to quantify but can have significant implications for the rehabilitative and reintegrative outcomes for individuals with sexual convictions (ISOs). This highlights the need for a robust measurement tool in order for research examining the relationship between attitudes and other factors (e.g., implicit theories) to draw accurate conclusions which can have clinical implications for practice. The Attitudes Towards Sex Offenders (ATS) scale is the most widely used measure of attitudes. More recently, a shortened version of the ATS, the ATS-21 was developed and claims to be superior to the original version whilst remaining psychometrically sound. Due to its infancy, there is no critique to date examining the psychometric properties of the ATS-21. The current critique offers this examination. Firstly, an overview of the tool and research utilising the ATS-21 as a measure of attitudes will be described. Second, the psychometric properties of the tool will be discussed, including its validity and reliability based on the newly emerging literature. Finally, the ATS-21 will be discussed in comparison to other existing methods of measuring attitudes towards ISOs. Practical implications, limitations, and further research in the area will be considered throughout.

Introduction

An attitude can be defined as a “*psychological tendency that is expressed by evaluating a particular entity with some degree of favour or unfavour*” (Eagly & Chaiken, 1993, p. 1). According to Breckler’s (1984) tripartite model of attitudes, there are three distinct components that underpin attitudes towards any given attitudinal target. The first component is ‘*cognition*’ which relates to the types of beliefs (e.g., stereotypes) one may hold about others; the second is ‘*affect*’ which is about instinctive emotional responses that one may have towards someone; and the final component is ‘*behaviour*’ which relates to how one may act in reference to another. Conceptualised in this way, how we think, feel and behave towards individuals who sexually offend (ISOs) and therefore our overall attitudes towards this marginalised group will undoubtedly have consequences for ISOs. The attitudes of professionals working in forensic settings are likely to impact the way ISOs are treated and managed within the criminal justice system and forensic mental health services; whilst public attitudes more generally are likely to impact public policy and how ISOs are received by the public (i.e., community reintegration). As such, understanding attitudes towards this group is of social, political, and clinical importance.

Over the last two decades, the Attitudes Towards Sex Offenders Scale (ATS; Hogue 1993) has been one of the most widely used tools to measure attitudes towards ISOs. Researchers have used the ATS to measure attitudes of the general public, in addition to those working with ISOs including prison and probation staff, psychologists, and forensic healthcare staff. As discussed in previous chapters, understanding what and how individual differences and evaluator-related factors impact the attitudes of those working with ISOs in a professional capacity has implications for the social and therapeutic climate in which ISOs reside, which in turn may impact treatment outcomes (Beech & Hamilton-Giachritsis, 2005), recidivism and community reintegration. However, to ensure an accurate discussion and understanding of such literature, in addition to effectively advancing research in this area, a psychometrically robust tool to measure attitudes is imperative.

In their review of the attitudinal literature, Harper et al., (2017) outlined the methods used by researchers to measure attitudes as a construct whilst discussing methodological issues. Following this, Challinor (2019), Brown (2021) and Pearson (2021) have discussed the psychometric properties of the ATS and relevant literature. However, since this time, there have been advancements in the measurement of attitudes towards ISOs. Hogue and Harper (2019) developed a 21-item shortened version of the ATS measure (the 'ATS-21') and have argued that this measurement tool offers the most comprehensive assessment of attitudes towards sexual offenders at present. Moreover, research using the ATS-21 to measure attitudes towards ISOs is emerging within the field.

Aims

Due to the recent development of the ATS-21, no psychometric critique exploring its psychometric properties currently exists. As such, the aim of this critique is to define the psychometric properties of the 'ATS-21' and discuss its added value. This critique also aims to assess the utility of the ATS-21 in measuring attitudes of professionals working in forensic settings. In addition, rather than simply duplicating the arguments brought forward in existing critiques of the ATS and - by extension - the ATS-21, the critique intends to discuss these previous arguments through a critical lens.

Overview of the ATS-21

The ATS-21 (Hogue & Harper, 2019) is a self-report questionnaire comprising of 21 attitudinal statements about ISOs. Eleven of the items are considered to be negatively oriented and include statements such as "*Give a sex offender an inch and they take a mile*" and "*You have to be constantly on your guard with sex offenders*". The remaining 10 items are positively oriented and include statements such as "*Sex offenders have feelings like the rest of us*" and "*I wouldn't mind living next door to a sex offender*". Respondents are required to indicate their level of agreement or disagreement with each statement on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Upon reverse scoring the 11 negatively oriented statements, scores for all statements are summed and a

constant of 21 is removed, yielding scores ranging from 0-84. Higher scores indicate more positive attitudes towards ISOs. The ATS-21 produces three 7-item subscales; 'Trust', 'Intent' and 'Social Distance'. Aligned with Breckler's (1985) ABC model of attitudes 'Trust' captures the affective component of attitudes such as how much one feels they are able to trust ISOs, 'Intent' captures the cognitive components of attitudes such as considering the motivation for an ISOs' actions or decisions, and 'Social Distance' captures the behavioural aspect of attitudes such as how one might act towards ISOs. The ATS-21 is a reconceptualization of Hogue's (1993) original scale where the 7 highest loading items on each subscale were retained, contributing to its reduced length. As such, the ATS-21 is considered a less cumbersome measure of attitudes and therefore more user-friendly, particularly when collecting data online where time consuming scales may increase dropout rates, yielding fewer responses.

A scoping search of the list of studies that have cited Hogue and Harper's (2019) re-validation paper (39) revealed 12 studies that have used the ATS-21 as a measure of attitudes (Table 17). Of the 27 studies that were not suitable for discussion (mostly due to having cited rather than administered the ATS-21), 7 studies are believed to have used the ATS-21 as a measure of attitudes but full texts could not be accessed. Of the 12 studies discussed 9 were published articles and 3 were unpublished doctoral theses. Since its development, the ATS-21 has primarily been used to measure community attitudes towards ISOs in community samples (10). Very few have utilised the ATS-21 with professional samples (3).

The ATS-21 has been utilised to understand the impact of individual differences on attitudes (Fernández-Huelga & Jiménez, 2023; Harper, 2016), the effect of attitudes towards ISOs on risk judgements (Calobrisi & Knight 2023; Harper & Hicks, 2022; Lehmann et al., 2023), and whether attitudes differ between different paraprofessionals (Browne, 2017), those working with ISOs vs the general public (Courtois et al., 2019; Pearson, 2021), and based on differing perpetrator background information (Perez, 2023; Sparks & Wormith, 2021). The ATS-21 has also been used as a co-variate to reduce error when investigating the effects of experimental interventions such as narrative humanisation (Harper et al., 2021), victim-perpetrator relationship (Hartley & Bartels, 2022), and implicit theories (Harper, 2016) on attitudinal, stigmatised and judgement responses

towards ISOs. Studies have been primarily conducted in the UK (6) however, studies were also conducted in Canada (1), Germany (1), USA (2), France (1), and Spain (1). Only Courtois et al. (2019) explicitly stated that the ATS-21 was successfully translated into another language – French – despite the ATS having been administered to both a German (Lehmann et al., 2023) and Spanish (Fernández-Huelga & Jiménez, 2023) sample. It is unclear from the text whether these researchers translated the ATS-21 or administered the measure in English.

Psychometric properties

Reliability

Type of Scale

Firstly, for a psychometric measure to be reliable, an important aspect to consider during development is the type of scale used and the type of data it collects. Kline (2015) states that a psychometric tool is likely to be more reliable when a construct is measured using interval/ratio level data, compared to nominal/ordinal level data. Like the original scale, the ATS-21 uses a 5-point Likert scale ranging from 0 (strongly disagree) to 4 (strongly agree) after the constant of 21 is removed, to obtain attitudinal responses which is measured at the interval level. Although one could score zero on the measure, this is not a 'true' zero and therefore zero would not indicate an absence of attitudes. Also, the distance between two responses on the Likert-type scale is not necessarily equal. This means that although higher scores indicate more positive attitudes than lower scores, one could not conclude that a participant scoring 40 is twice as positive as a participant scoring 20. As such, one must take care when comparing and interpreting scores. However, despite the fact that ratio level data is argued as optimal for psychometric measures (Kline, 2015) it would not make sense to have an attitudinal score of zero as this would indicate that one has no attitudes. As such, interval level data is considered sufficient for the purpose of measuring attitudes.

Table 17. Existing ATS-21 Literature

Study (Year)	N	Participants	Country	Internal Consistency (α)			
				Full Scale	Trust	Intent	Social Distance
Browne (2017) ^a	166	Paraprofessionals	UK	.93	.86	.88	.81
Calobrisi & Knight (2023)	249	Community and Professionals	USA	.91	-----Not Reported-----		
Courtois et al. (2019)	405	Community and care-workers working in sex offender treatment.	France	.91	.76	.87	.78
Fernández-Huelga & Jiménez (2023)	322	Community	Spain	.93	.83	.87	.82
Harper & Bartels (2018)	252	Community	UK	.95	.89	.88	.84
Harper & Hicks (2022)	527	Forensic Professionals, and Students	UK (97%)	.94	-----Not Reported-----		
Harper et al. (2021)	539	Community	UK	.93	-----Not Reported-----		
Hartley & Bartels (2022)	292	Community	UK	.93	.82	.85	.82
Lehmann et al. (2023)	166	Community	Germany	.92	-----Not Reported-----		
Pearson (2021) ^a	281	Community	UK	.91	.82	.82	.77
Perez (2023) ^a	366	Community	USA	.93	-----Not Reported-----		
Sparks & Wormith (2021)	403	Students	Canada	-----Not Reported-----			

a. Unpublished thesis

Internal consistency

The internal consistency of a test refers to whether items on a scale that are intended to measure the same construct produce consistent scores. As the ATS-21 consists of both negatively and positively oriented questions, for the ATS-21 to be internally consistent, we would expect someone with positive attitudes to respond with a higher level of agreement to positively oriented statements, and a higher level of disagreement with negatively oriented statements. Typically, internal consistency is measured using Cronbach's alpha score (α) which assesses how closely related a group of items are as a measure of a concept. Cronbach's alpha scores range from 0 to 1, with higher scores being indicative of greater consistency, and therefore reliability. A score of .70 indicates acceptable levels of internal consistency (Kline 2015).

In their validation paper of the revised ATS-21 scale, Harper and Hogue (2019) used a community sample to test the psychometric properties of the scale. This was to avoid possible interference of professionals' experience on the data. Here the ATS-21 demonstrated excellent levels of internal consistency as a complete unidimensional scale, with an alpha of .91. This suggests that all the items measured the same construct. Within the three subscales, there were also good levels of internal consistency: Trust $\alpha = .83$; Intent $\alpha = .84$; Social Distance $\alpha = .79$. Harper and Hogue (2019) also demonstrated that the three subscales represent distinct constructs as although each factor correlated highly with the ATS-21, they did not meet the threshold for collinearity.

Several studies have reported excellent levels of internal consistency within the ATS-21's unidimensional scale, with alpha scores for the full scale ranging from .91 to .94, across community, student, and some professional samples (Table 17). Within the subscales of the ATS-21, studies have reported alphas ranging from .77 to .88, higher than the acceptable level of .70. This suggests that the items on the ATS-21 generally appear to tap into one unified construct, with well replicated findings across different samples.

Test-retest reliability

Test-retest reliability refers to the ability of a psychometric tool to produce the same results when administered at two different points in time. For the ATS-21 to demonstrate acceptable test-retest reliability, a participant's scores on the measure should remain the same when they are tested at a later date. Typically test-retest reliability is measured by correlating responses between these two time points which produces a reliability coefficient ranging between -1 and +1. Higher reliability coefficients indicate a more reliable scale. A satisfactory test-retest coefficient should be at least .70 (Nunnally, 1978).

In contrast to the prior lack of test-retest reliability for the original 36-item scale, Hogue and Harper (2019) have provided preliminary evidence for test-retest reliability for the ATS-21. The ATS-21 was re-administered to participants over a period of two weeks and observed scores were highly correlated, with coefficients ranging from .82 to .98 amongst the unidimensional scale, and .70 to .97 amongst its subscales. This suggests that participants' scores at both points in time were highly correlated, providing evidence for excellent levels of temporal test-retest reliability for the ATS-21. Furthermore, Hogue and Harper (2019) investigated test-retest reliability in different data collection contexts where survey completion was: 1) in person at both points in time, 2) online at both points in time, and 3) in person at the first point in time and online in the second. The ATS-21 continued to demonstrate high test-retest reliability, consistent across data collection contexts. This also provides support for the conceptually stable nature of attitudes (Hogue, 2015). No studies to date have attempted to replicate these findings by examining the test-retest reliability of the ATS-21 within their samples. This, coupled with the small sample sizes used in Hogue and Harper's (2019) sample suggests that future studies should attempt to replicate these findings to validate these results.

Validity

Face validity

Face validity is concerned with whether a tool appears to measure what it is intended to measure (Johnson, 2021). It is similar to content validity, which is described later, however face validity is a more informal and subjective assessment. As such, the question is whether the ATS-21 measures people's attitudes towards ISOs. Researchers have criticised the ATS – and by extension – the ATS-21 stating that it does not specifically measure attitudes of ISOs (Church et al., 2008; Willis et al., 2010). As such, it has been considered to lack face-validity (e.g., Challinor, 2019). This was because of the way in which the ATS was originally designed. The ATS is an adapted version of the Attitudes Towards Prisoners Scale, developed in 1985 by Melvin and colleagues. In the development of the ATS, Hogue omitted the word 'prisoner', exchanging it for 'sex offender'. As such, it has been argued that the ATS fails to tap into specific attitudes towards sex offenders; rather, it measures more general attitudes towards offenders. However, King and Roberts (2017) suggest that the term 'sex offender' itself elicits media-proliferated stereotypical images of 'violent, predatory male paedophiles' (p. 2). This lends itself to the idea that individuals hold a 'sexual offender schema' (Harper & Bartels, 2018), from which schematic (and stereotypical) representations are activated when asked questions about ISOs specifically (Harris & Socia, 2014). As such, it can be argued that the scale's change in language from 'prisoner' to 'sex offender' would in fact tap into specific sexual offender stereotyped attitudes, and therefore the ATS-21 is considered to have face validity.

However, this generates a different problem. Lowe and Willis (2022) have highlighted how scales using the term "sex offender" may perpetuate negative attitudes towards ISOs. When examining the effects of person-first language compared to use of the "sex offender" label, they found a labelling effect where offence-based labels were associated with more negative attitudes towards ISOs than more neutral descriptors. This suggests that the ATS-21 as a scale itself may inflate attitudinal scores in a negative direction. As such, using more neutral descriptors like person-first language, rather than the "sex offender" label within

the ATS-21 items, may improve its validity whilst reducing the risk of unintentionally reinforcing stereotypes that the research itself is aiming to address.

Content validity (factor structure)

Content validity assesses whether a test is representative of all aspects of the construct it claims to measure. As such, the question is whether the ATS-21 measures all relevant aspects of 'attitudes'. Church et al. (2008) criticised the ATS (Hogue, 1993), suggesting it does not sufficiently measure attitudes towards ISOs for the reasons described above. Alternatively, they developed the Community Attitudes Towards Sex Offenders (CATSO) scale which they claim to be a measure of public attitudes. However, upon finding a four-factor scale structure, other studies have not been able to replicate this (e.g., Shackley et al., 2014) and therefore the CATSO does not seem to have a consistent factor structure across studies. Furthermore, it has been suggested that the CATSO does not measure attitudes at all, rather it measures stereotypical perceptions (knowledge-based attributions) (Harper & Hogue, 2015a).

Conversely, in their revalidation of the original unidimensional ATS measure, Hogue and Harper (2019) examined and confirmed the factor structure of the ATS-21 scale across two studies. A Principal Component Analysis (PCA; Study 1) revealed three distinct factors which align with the tripartite model of attitudes, discussed earlier in this chapter. That is, how much a respondent has 'Trust' ($\alpha = .83$) in individuals with sexual convictions reflects a level of *affective* attitude; consideration of 'Intent' ($\alpha = .84$) and therefore an ISOs state of mind or motivation behind actions taps into the *cognitive* component of attitudes; and the level of 'Social Distance' ($\alpha = .79$) reflects how the respondent may act towards ISOs representing the *behavioural* component of attitudes. A subsequent Confirmatory Factor Analysis (CFA; Study 2) demonstrated how each item on the ATS-21 loaded well onto its proposed factors outlined in Study 1. Moreover, a third CFA (Study 3) revealed an identical three-factor fit amongst a sample of professionals working in the criminal justice system including police officers, prison officers (involved and uninvolved in the treatment of ISOs), probation officers and forensic

psychologists. This provides strong preliminary evidence of the content validity of the ATS-21, and its consistency across different samples.

Construct validity

Construct validity is concerned with whether a group of variables in fact represent the construct being measured (Souza et al., 2017). More specifically, it refers to the ability of a tool to precisely portray, as fully as possible, the construct it sets out to measure (Kline, 2015). Construct validity is particularly important when measuring concepts that are hard to quantify such as 'attitudes'. As discussed, the three subscales of the ATS-21 are the result of a three-factor solution which is representative of the three core aspects of attitudes. However, Harper and Hogue (2019) found that this three-factor solution could explain only 45.65% of the variance, leaving more than half of the variance explained by unknown variables. As such, although the ATS-21 represents "attitudes" well in the conceptual sense, it may also be measuring other variables, therefore somewhat lacking in construct validity. The authors suggested that the 54.35% of unexplained variance within the measure could be explained by various demographic factors such as educational attainment, parental status, political orientation (e.g., Harper et al., 2017), and they encourage exploration of other variables in future work.

Concurrent validity

Concurrent validity refers to whether a measure correlates with other measures that claim to measure the same construct. Scores on the ATS-21 are strongly correlated with scores on the original 36-item measure (Harper & Hogue, 2019). Although this is to be expected due to the levels of overlap between the two measures, this provides preliminary evidence of concurrent validity for the ATS-21. It is important to note however, that the lack of additional evidence supporting the concurrent validity of the scale may be due to the lack of existing measures that truly measure attitudes. In their literature review, Harper et al. (2017) highlight how attitudes have been measured in non-standardised ways. Furthermore, they also argue that the only other tool claiming to measure attitudes towards ISOs – the CATSO – lacks measurement of the affective

component of attitudes. Harper and Hogue (2015a) suggest the CATSO is a better measure of stereotypical knowledge-based judgements about ISOs (perceptions) rather than attitudes and redeveloped the CATSO into the Perceptions of Sex Offenders scale (PSO). Rather than a rival to the ATS-21, it has been recommended that the PSO be used in conjunction with the ATS-21. After measuring baseline attitudes, the PSO can be administered to measure how respondents' perceptions of ISOs and how they should be sentence and managed might change following some sort of intervention or experimental manipulation.

Predictive validity

Predictive validity refers to the ability of a measure to predict future outcomes. This is measured by obtaining correlations between the measure in question and later criterion (Kline, 2015). As such, the ATS-21 would have predictive validity if it were able to predict future behaviours that coincide with holding either positive or negative attitudes towards ISOs. Whilst the ATS-21 was not designed as a predictive measure, research has sought to examine whether attitudes predict outcomes like risk judgements. For example, Harper and Hicks (2022) found a negative correlation between ATS-21 scores and risk judgments ($r = -.67$); lower scores and therefore more negative attitudes towards ISOs resulted in more negative judgements of risk amongst forensic professionals. Similarly, Hartley and Bartels (2023) found a negative correlation between ATS-21 scores and punitive judgments ($r = -.62$) amongst their public sample. These findings provide preliminary evidence of the ability of the ATS-21 to predict risk related and punitive outcomes, and therefore evidence of its predictive validity.

Threats to validity

As with many explicit self-report measures, the validity of the scale can be threatened by the increased likelihood of socially desirable responding. This refers to the tendency for respondents to conceal their true opinions and give answers to questions that they believe are more desirable, in order to present a more favourable image of themselves. This is particularly problematic when dealing with sensitive and socially contentious topics such as sexual crime. Socially desirable responding may affect different populations of respondents in different ways. For

example, where holding negative attitudes towards ISOs is generally the societal norm amongst members of the public (e.g., Harper, et al., 2017), respondents may be less inclined to report more positive attitudes even if they were more aligned with their true beliefs. Conversely, those working in forensic settings or in a more therapeutic or rehabilitative capacity with ISOs tend to hold more positive views towards them (e.g., Harper et al., 2017) and may be more inclined to report positive views due to the potential implications of displaying attitudes at odds with the aims of treatment and rehabilitation. This may be further compounded if the measure is administered in a respondent's place of work, or if they believed their responses could have a bearing on their job role.

Encouragingly, Hogue and Harper (2019) found no relationship between the ATS-21 and social desirability bias as assessed by Reynolds' (1982) Social Desirability Scale (SDS) suggesting that the ATS-21 is somewhat resistant to socially desirable responding. Although this may hold true for the general public, future research may benefit from examining the relationship between the ATS-21 and the SDS amongst professionals in forensic settings. However, there are ways in which the potential impact of socially desirable responding can be negated when administering the ATS-21. Ensuring participants are guaranteed anonymity can decrease motivations for socially desirable responding, in addition to reassuring participants that participation or withdrawal will not affect their relationships and treatment in their place of work (as demonstrated in chapter three). Researchers can also pre-screen participants out of studies by administering a tool that measures socially desirable responding to prevent those subject to such effects from biasing the overall findings. Moreover, combining the ATS-21 with more implicit tools such as Implicit Association Tests (e.g., Malinen et al., 2014) may reveal unconscious attitudes or those masked by desirability biases.

Normative data

Normative data from a reference population enhances the utility of a tool as it establishes a set of baseline scores of which scores generated by new research can be compared against (Kline, 2015). This allows for one to determine whether scores for an individual or group of respondents differ from what would typically be expected for an individual or group sharing similar characteristics or qualities

(Schmidt & Pardo, 2014). Hogue and Harper (2019) have provided normative data for the ATS-21 for both community samples (Study 1: $n = 188$; Study 2: $n = 335$;) and professional groups (Study 3: $n = 170$) who work in the criminal justice system such as police ($n = 33$), prison (treatment $n = 50$; no treatment $n = 21$) and probation officers ($n = 11$), and forensic psychologists ($n = 21$). This allows researchers to compare scores across several groups within this area of literature including – to some extent – professionals working in forensic settings.

However, normative data are typically obtained from large samples, and the sample size from which the normative data for professionals were generated was small. As such, the normed data for professional groups may not be truly representative of attitudinal scores across their respective disciplines. This could lead to problems with interpretation as subsequent research examining the attitudes of these groups may lead researchers to believe that attitudinal scores in their samples are extensively above or below the norm and somewhat abnormally positive or negative. Furthermore, there are many other disciplines within forensic settings such as those examined in chapters three and four (e.g., doctors, nurses, occupational therapists, support workers etc.) whose attitudes are important to capture but who are not reflected within these professional norms. As such, to provide more reliable estimates for normed groups, replications of this work on a larger scale with different disciplines could be advantageous to the field. Nevertheless, as the ATS-21 was not intended as a diagnostic tool where norms would be imperative, it can be argued that the ATS-21 has great utility irrespective of the lack of normed data. The scale's mid-point can be used as an interpretation guide, alongside group comparison research.

Conclusions

The recently revised short-form version of the ATS, the ATS-21, has been argued by its authors to be the most comprehensive measurement of attitudes towards individuals with sexual convictions to date. 'Attitudes' represent a concept that is difficult to measure with accuracy and precision as attitudes cannot be directly observed. As a topic which sparks strong opinions amongst the public and contention amongst professionals working in forensic fields, measuring attitudes

towards individuals with sexual convictions more specifically compounds this difficulty. The possible implications both public and professional attitudes have for ISOs highlight the importance of empirically understanding attitudes towards this offender group. As such, a robust and psychometrically sound measure of attitudes is imperative for our continued understanding of the impact of such attitudes so that accurate conclusions can be drawn to inform clinical practice.

In summary, the ATS-21 is considered a psychometrically sound tool for the purpose of capturing attitudes towards ISOs with several strengths. The measure has firstly demonstrated excellent reliability. The ATS-21 generates interval level data which is considered fit for purpose in the absence of a meaningful true zero (i.e., ratio level data) when dealing with attitudes. The measure has also demonstrated excellent internal consistency within its items across several studies and populations, including that of professionals working in forensic settings, highlighting the strong emerging evidence-base behind the new measure. Nonetheless, notable limitations include the small sample sizes used to measure test-retest reliability and the lack of replication by other researchers. While still in its infancy, providing consistent results in future studies would be conducive in increasing the reliability of the tool.

Secondly, regarding validity, there is a strong argument that the ATS-21, despite its simplistic origins, does in fact measure attitudes specific to that of individuals with sexual convictions (rather than offenders in general) due to the schematic representations that are evoked by the term 'sex offender'. Unlike other attitudinal measures (i.e., the CATSO), the ATS-21 has demonstrated a consistent, theoretically anchored factor structure across multiple studies that maps onto the core components of attitudes. The ATS-21 also correlates highly with its predecessor, the ATS, but can be considered superior due to its increased utility being over 40% shorter in its length; and due to the provision of scoring sheets and syntax to reduce scoring errors. However, to enhance the overall validity of the ATS-21, future research should focus on confirming the factor structure, conducted by researchers independent of the authors. The greatest challenge lies in the construct validity of the ATS-21. With over half of the variance unexplained, future research may benefit from exploring possible causes, resulting in a clearer picture of the attitudes of different groups, and mediating factors.

Finally, in terms of further improving the psychometric properties of the ATS-21, the authors could reconsider the language used, replacing the term "sex offender" with person-first language to avoid conflating attitudinal scores. There is also preliminary evidence of semantic equivalence with a French back-translation of the ATS-21 reporting excellent internal consistency, indicating a level of cultural validity - however, further cultural validation is needed.

CHAPTER SIX

General Discussion

Thesis aims

This thesis aimed to fill a knowledge gap by exploring the nature of implicit theories (beliefs about change) amongst professionals working in forensic mental healthcare settings and their impact on attitudes towards individuals who sexually offend (ISOs) and risk management decisions. Scepticism about the treatability of ISOs is expressed by the public (Weekes et al., 1995) and professionals in forensic settings (Melvin et al., 2020) alike. As such, the exploration of implicit theories is an important topic for empirical inquiry given that desistance from sexual crime, in part, depends on the quality of surrounding systems in supporting ISOs towards behaviour change, and the ability of professionals working with ISOs to instil the possibility of change is vital for successful treatment (Marshall et al., 2006).

To achieve these aims, three key methodological approaches were utilised. Firstly, the relationships between implicit theories and responses to offenders more generally were explored by conducting a systematic review. As findings revealed the paucity of data examining professionals' implicit theories and few studies looking at responses to ISOs, quantitative research methods were used to explore the nature of implicit theories amongst professionals working in forensic mental healthcare settings, and their relationship to demographic and person-related factors, attitudes (primary empirical study), and risk management judgements (secondary empirical study) following the administration of a hypothetical sexual offence scenario. Finally, as attitudes are a difficult concept to quantify, the claim that the attitudinal measure administered in the empirical studies is the most comprehensive measure to date was critically appraised.

Summary and interpretation of findings

Chapter Two

The aim of chapter two was to understand the role of implicit theories in determining responses to people with criminal convictions by synthesising existing

literature. A total of 17 studies met the inclusion criteria, all of which were quantitative in nature. All but one study included in the review found that holding incremental theories (or growth mindsets) and therefore believing that a person's characteristics are malleable results in more favourable responses to individuals with criminal convictions. Growth mindsets are associated with more positive attitudes (6 studies), less punitiveness (10 studies) and increased rehabilitative support (11 studies) compared to fixed mindsets. These findings were consistent across countries, mindset domain and offender type. This has implications for offender rehabilitation in that believing that people can change their ways results in the belief that offenders should (and can) be educated to live law-abiding lives, have access to employment and treatment programmes (Rade et al., 2018a, 2018b; Tam et al., 2013, whilst being less supportive of policies (e.g., criminal record use) that make it difficult for offenders to achieve their primary needs (Lehmann et al., 2020). In relation to rehabilitation efforts for ISOs, holding growth mindsets align with the aims of the good lives model (GLM; Ward & Stewart, 2003) and promote factors that positively influence desistance from sexual crime (Ward & Laws, 2010). The one study to find that incrementalists were more punitive than entitists (Schweitzer, 2013) may be explained by their measure of punitiveness offering a binary option between life without parole and the death penalty. This could suggest that when decisions do not offer the possibility of change, incremental theories are not conducive to outcomes.

Factors that have been found to mediate the relationship between implicit theories and responses include internal attributions of criminal behaviour and implicit theory domain. In comparison to incrementalists, entity theorists appear to attribute criminal behaviour to offenders being 'bad' and 'immoral' (Tam et al., 2013) suggesting something very dispositional about their offending behaviour (Harper & Bartels, 2018). For entitists, it may be easier and less effortful to locate the problem within the person (Miller et al., 2007); however, this leads to more punitiveness. Offender specific malleability appears to mediate the relationship between general malleability and assessment severity. This suggests that although malleability beliefs about people in general result in more favourable responses to offenders, people may be more malleable in their mindsets when provided with details and context of a specific case, essentially humanising the individual, leading to less punitiveness. In relation to ISOs, these findings align

with the idea that treating ISOs as *people* (Ward & Laws, 2010) is likely to have a positive impact on rehabilitation and recidivism, and viewing ISOs through a lens which humanises them (i.e., case specific growth mindsets) may promote this.

The systematic review concluded that growth mindsets promote positive attitudes, reduced punitiveness and increased rehabilitation support for individuals with criminal convictions. There is also preliminary evidence to suggest that growth-mindsets can be experimentally primed resulting in more favourable responses to offenders (see clinical implications). However, only one study highlighted by the review used a professional sample. As such, implicit theories amongst professionals were yet to be examined.

Chapter Three

Given the links between implicit theories and attitudes in chapter two, and the paucity of data on professional's implicit theories, the aim of chapter three was to explore implicit theories (of both human nature in general and ISOs specifically) amongst professionals in forensic settings. Of interest was the proportion of entity vs incremental theories amongst professionals, and their relationship with demographic / person-related factors and attitudes towards ISOs. More professionals identified as incrementalists than entitists within both domains, in line with hypothesis 1, which may reflect that individuals who think incrementally are drawn to professions in which the key goal is to help people change their behaviour and reduce their risk. Age, gender, sexual victim status, experience in mental health settings nor experience in forensic settings were associated with implicit theories (hypothesis 2) suggesting that these factors do not promote incrementalist or entitist thinking.

An even split of incremental and entity theories across both domains was observed amongst tabloid readers, and a higher proportion of incrementalists amongst broadsheet and dual readership. This was at odds with previous literature conducted in community samples (Harper & Bartels, 2018). Where newspaper readership can be considered a proxy for levels of sensationalised media coverage which is more prevalent in tabloid than broadsheet newspapers (Harper & Hogue,

2015b), the results suggest that sensationalism is likely to have less of an effect on professionals in forensic settings compared to the general public with regards to their implicit theories; that is, professionals are able to maintain a degree of incremental thinking. The only other factor that was found to be related to implicit theories was professional discipline. Across, psychiatry, nursing, psychology, occupational therapy, healthcare support workers (HCSWs), social workers and management, only the HCSWs had a higher proportion of entitists than incrementalists. Furthermore, compared to HCSWs and nurses, psychologists were significantly more likely to be incrementalists, and therefore more likely to hold malleability beliefs than fixed beliefs about ISOs. This may reflect the idea that those working in more change-focussed roles display more optimism about change. Conversely, nurses and HCSWs who are responsible for the day-to-day care of patients and who are more likely to be subject to negative treatment from them (Brophy et al., 2018), may as a result exhibit diminished beliefs about change.

Finally, all disciplines taken together, incrementalists of both human nature and sexual offenders expressed more positive attitudes towards ISOs, across all three components of attitudes, as measured by the 21-item attitudes towards sex offenders scale (ATS-21; Hogue & Harper, 2019). Incrementalists were more trusting of ISOs (affective), attributed lower levels of intent (cognitive) and required less social distance (behavioural) than entitists. This has implications for forensic practice as levels of trust may impact upon the ability of the multi-disciplinary team (MDT) to take positive risks. Where incrementalists' attitudes were not overly positive, this could be conducive to working successfully with ISOs.

Where attitudes can be conceptualised as taking on an inverted U shape resulting in both extremely positive *and* extremely negative attitudes being harmful, incrementalists may sit towards the centre, finding the balance between fostering the essential warm and empathic approach which supports the development of the therapeutic relationship (Marshall et al., 2006) whilst holding risk in mind and maintaining professional boundaries.

Chapter three built on the findings of Harper and Bartels (2018) utilising a professional rather than community sample, whilst addressing the limitations of findings by Blagden et al. (2016) where professionals' implicit theories were confounded in the analysis by beliefs about change from the ISOs themselves. However, a significant limitation of the study was that the sample did not reach power with regards to adequate sample size for *hypothesis 1* and *2*, and therefore research with larger sample sizes are required to draw accurate conclusions.

Chapter Four

Chapter four built on the findings from chapter two which highlighted how not only do implicit theories impact upon attitudes towards individuals with criminal convictions, they also influence decision-making, with incrementalists being harsher and more extreme in judgements towards offenders. Moreover, as chapter three found a relationship between implicit theories and professionals' attitudes, of interest was whether this relationship extended to *judgements* of different hypothetical sexual crime scenarios. As such, the aim of chapter four was to examine whether professionals in forensic mental healthcare settings use implicit theories to organise their thinking when making knowledge-based judgements as measured by the Perceptions of Sex Offenders scale (PSO), clinically relevant judgements informed by empirical risk management tools, and explanations for offending behaviour. The findings show that in contrast to Harper and Bartels' (2018) community sample, incrementalists were more lenient when making judgements about sentencing and risk (as measured by the PSO), irrespective of whether the perpetrator was representative of a stereotypical 'sex offender' (e.g., adult male, vs adult female, vs juvenile male). Incrementalists also made more positive clinically relevant judgements including believing that the offender depicted in the vignette was less likely to reoffend, that sexual violence was less imminent and that they would benefit from therapy. Finally, upon exploring implicit theories and explanations for offending behaviour, professionals appear not to rely on their implicit theories to make judgements about the causes of behaviour.

Together the findings of chapter four suggest that believing in the malleability of ISOs results in more positive evaluations of ISOs. Professionals in forensic mental

healthcare settings are tasked with making a range of decisions about ISOs that impact upon their progression through their detention into the community. Whether a psychologist completing risk assessments / delivering psychological interventions, a social worker putting in conditions around relationships, or the wider MDT placing restrictions on patients that impact their level of responsibility, autonomy and personal growth (and therefore primary needs; Ward & Stewart, 2003), malleability beliefs are considered a beneficial factor.

Chapter Five

Chapter five aimed to explore the psychometric properties of the attitudinal scale administered in chapter three and four, the ATS-21 (Hogue & Harper, 2019), which is argued by its developers to be the most comprehensive assessment of attitudes towards ISOs to date. As attitudes are hard to quantify, a psychometrically robust tool is essential to the accurate measurement of attitudes and associated factors such as implicit theories, so that accurate conclusions can be drawn to inform clinical practice.

The ATS-21 appears to be high in content validity, demonstrating a consistent theoretically anchored factor structure across multiple studies that maps onto the core components of attitudes; affective, behavioural and cognitive components (Breckler, 1984). The original scale 36-item scale (ATS; Hogue, 1993) – and by extension the ATS-21 – has been criticised for lacking in face validity; critiques have suggested that the scale measures more general attitudes towards offenders due to its origins in the Attitude Towards Prisoner scale (ATP) rather than attitudes specific to ISOs (Challinor, 2019; Church et al., 2008; Willis et al., 2010). However, as discussed in chapter three, research suggests that the term ‘sex offender’ elicits stereotypical media-proliferated images (Harris & Socia, 2014; King & Roberts, 2017). As such, it is argued that replacing the word ‘prisoner’ with ‘sex offender’ would in fact tap into specific sex offender stereotyped attitudes, lending itself to the face validity of the ATS-21.

Although the measure is relatively recent, research utilising the scale has demonstrated its excellent internal reliability, with alpha coefficients for the unidimensional scale ranging from .91 to .94 and .77 to .88 within its subscales.

The ATS-21 also correlates with its predecessor (the ATS) evidencing a level of concurrent validity, and Hogue and Harper (2019) have produced preliminary test-retest reliability and normed data. As such, the ATS-21 is considered superior to other attitudinal measures, some of which do not appear to measure attitudes at all (i.e., Church et al., 2008). It appears to have strong psychometric properties whilst being 40% shorter in length than the original scale, increasing its utility upon administration. That said, the overall validity of the scale could be enhanced by researchers independent of the authors confirming the factor structure. Moreover, the validity of measuring attitudes towards ISOs could be enhanced by administering the ATS-21 with a social desirability tool, and alongside implicit methods such as implicit association tests (e.g., Malinen et al., 2014).

Clinical implications

The overarching findings of this thesis have demonstrated how implicit theories can influence attitudes towards ISOs and judgements made about this offender group. Moreover, for professionals working in forensic mental health care service, adopting a growth mindset can result in more positive attitudes and decision-making which could result in a more therapeutic approach to how they are considered and managed. This aligns with the principles of strength-based models of rehabilitation for ISOs such as the GLM (Ward & Stewart, 2003). Two key clinical implications for continued professional development are detailed below.

Training

There is little evidence to suggest that staff training programmes aimed at improving attitudes towards ISOs are successful (Craig, 2005; Kjelsberg & Loos, 2008; Simon & Arnaut, 2011). That is, educating professionals on theories of sexual offenders, working constructively with sexual offenders, assessing risk, and challenging common myths alone may not be sufficient in producing long-term attitude change. However, there is evidence to suggest that professionals who receive training aimed at improving awareness of the impact of bias, are likely to be more aware of the potential impact of their own biases (Zapf et al., 2018).

As such, targeting professionals' implicit theories and raising awareness about the potential impact on attitudes and evaluations of ISOs may be a helpful intervention to improve professional practice and mitigate against negative bias. Moreover, promoting malleability beliefs may offer an alternative pathway to improved attitudes considering the lack of success via attitudinal training. Findings from chapter two's systematic review demonstrated that malleability beliefs about human characteristics can be primed experimentally by reading articles or delivering workshops emphasising the changeable nature of people and the characteristics they hold (Peleg-Koriat et al., 2020; McKinsey, 2021). There may be benefit from existing training programmes incorporating mindset-enhancements through explicitly emphasising the changeable nature of ISOs and embedding incremental ways of thinking into practices. This would be particularly important in secure forensic mental health services which often look after complex individuals with cognitive and behavioural profiles (e.g., personality disorder, autism spectrum disorder) commonly associated with resistance to change (e.g., Adshead & Jacob, 2009; Melvin et al., 2020). With the push for services to become more trauma-informed which posits that people can overcome traumatic experiences (which link to offending) with support and intervention (Substance Abuse and Mental Health Services Administration, 2014) it is likely that many services inadvertently promote incremental thinking towards individuals with criminal convictions more generally. However, being consistently explicit about the ability for those who commit sexual offences to change their behaviour may be conducive to attitudinal and behavioural change towards this group.

A recent study by Burnette et al. (2022) suggests that growth-mindset interventions do foster strong growth mindsets leading to better outcomes for individuals. However, they work best when delivered to those who need them the most; that is those with some indication of risk or vulnerability. As identified in Chapter 3, this may include those who are more likely to hold a fixed mindset, (i.e., HCSWs), and those who are at a higher risk of burnout which may diminish their ability to hold in mind the prospect of change (i.e., HCSWs and nurses). However, as the current thesis demonstrated that effect sizes were small, organisations may be interested in the 'return on investment' (ROI) when deciding whether the benefits are worth the costs of the time, effort, and money invested

into training (Burnette et al., 2022). They may also be interested in prioritisation to achieve the best ROI. This would be evidenced by systematic reviews or meta-analyses demonstrating the cumulative beneficial effects of growth mindset on attitudes and outcomes for ISOs, and in what contexts mindset interventions work best. However, as there is a paucity of research in this area, more studies will need to be conducted to 1) determine the potential impact with regards to positive change amongst forensic practitioners, and 2) present an holistic and convincing case to organisations.

Clinical supervision

The findings may also have clinical implications for supporting professionals through supervision. Clinical supervision is an important part of clinical and forensic practice that helps to provide individuals with opportunities for learning and which promotes ethical and improved client care (British Psychological Society, 2017; Care Quality Commission, 2013; Lyth, 2000). In a similar fashion to training, supervision could be an effective place to promote incremental thinking about ISOs. Clinical supervision may offer a more individualistic approach (highlighted as important in Chapter 2) where professionals can think about the malleability of specific (and likely more challenging) individuals where it may be more difficult to hold the prospect of change in mind. This protected time provides an opportunity to allow the freeing of mental resources, outside regular daily duties, where practitioners can be encouraged to think more incrementally about clients and jointly develop solutions to more complex dilemmas where they might feel stuck. Clinical Supervision may also help in reducing socially desirable responses for those who may feel compelled to report more growth mindsets about ISOs, in attempt to reduce their own cognitive dissonance because fixed mindsets are at odds with their rehabilitative role. The absence of acknowledgement of more fixed mindsets could mean that professionals may not take effective necessary steps to minimise bias in their own evaluations. As such, ensuring safety within the supervisory space for professionals to be honest and open is paramount.

The use of clinical supervision is well established within the psychology field as it is considered an imperative part of forensic practice (BPS, 2017). However,

regular and effective clinical supervision may be difficult to access amongst other disciplines in forensic mental health services such as nurses and HCSWs due to organisational barriers like staffing, lack of an appropriate supervisor and teamwork issues (Long et al., 2014). Moreover, clinical supervision is often prioritised amongst registered professionals and less so amongst unqualified staff such as HCSWs, despite HCSWs having an increased risk of stress and burnout (Care Quality Commission, 2013). Given the higher number of entitists amongst HCSWs found in Chapter 3, and the increased likelihood of those in more therapeutic roles subscribing to incremental implicit theories compared to those in more emotionally and physically challenging roles (see Chapter 3), providing effective supervision to nursing and HCSW staff in particular may help in processing the challenges they may face working day-to-day with this offender group; this may open up room to promote incremental thinking. After all, regular and effective clinical supervision is an important support strategy that assists nurses in forensic settings in the provision of care (McCarron et al., 2017) and therefore provides a direct avenue for intervention.

Recommendations for future research

This thesis has demonstrated the potential utility of promoting malleability beliefs about individuals with sexual convictions in supporting professionals in forensic mental healthcare settings to work effectively with this population. All chapters taken together; this thesis makes key recommendations for future research.

As demonstrated by chapter two, the implicit theory literature has focused on community and undergraduate samples whilst lacking exploration in professional samples. Chapter three and four addressed this by exploring implicit theories amongst a wide range of professional groups. However, insufficient sample sizes prevent the ability to draw accurate conclusions and generalise findings to the wider professional population. Moreover, ecological validity was low due to the use of hypothetical offence scenarios in chapter four and risk management judgements that, although clinically relevant, are not reflective of the more practical and imminent decision making that occurs amongst the MDT, nor how decisions are achieved in real world settings. As such, future research should address this.

Despite the possible benefits of mindset-enhanced training and promoting incremental thinking through supervision, chapter two has highlighted the need for more Randomised Controlled Trials (RCTs) examining the potential effectiveness of these interventions. The only study to date that has explored this in relation to responses to offenders found that mindset-enhanced interventions were only effective in improving responses to individuals with non-violent convictions (McKinsey, 2021). As definitive conclusions cannot be drawn from one study, future research could focus on utilising RCTs to explore mindset-enhanced training for individuals with sexual convictions. Furthermore, for mindset-enhanced interventions to be conducive to rehabilitation efforts, longevity in the promotion of incrementalism would need to be observed, and therefore longitudinal experiments conducted.

Reflections

Implicit theories of self

To provide an honest reflection requires me to share the lack of consideration I gave to my own implicit theories of self at the start of this project, and how this may have impacted my approach to, and completion of, the work. Whilst my implicit theory of others was at the forefront of my mind and within my conscious awareness as this was the focus of the work, my implicit theories of self were not clear; I had not considered them at all. Reflecting on my own early experiences in personal therapy whilst completing this piece of work led me to the conclusion that I likely held more of a fixed mindset of self. However, it was only through research supervision - where my supervisor enquired about my implicit theories of self - that I explicitly became aware of my tendencies to adopt a fixed mindset regarding myself. It became apparent that in times where I found the work more challenging and complex, I held more fixed mindset beliefs ("I'm never going to be able to do this", "It's too complex", "I don't have the capacity to understand this") which at times lead to negative affect and avoidance. Conversely, when being encouraged (and encouraging myself) to foster more growth mindset beliefs ("I can do this, it just takes time and a bit of work"), this fuelled my motivation and led to more achievement and positive affect.

In relation to my clinical practice, I wondered whether holding a fixed mindset of self may have contributed to or exacerbated existing feelings of imposter syndrome which could impact upon my work with clients through my own beliefs about my capacity to help them towards change. In this context, I also wondered whether fixed mindsets may link to avoidance, demotivation, and hopelessness, particularly with more challenging clients, whilst growth mindsets may link to increased hope, motivation, and achievement. Whilst beyond the scope of the current research project, the exploration of forensic practitioners' implicit theories of self and how they may impact their approach to their work may be an important area for empirical inquiry which future research could seek to address.

Implicit theories of others

Whilst I believe I hold a growth-mindset in relation to others and think that people in general, and individuals with criminal convictions more specifically, have the capacity to change their behaviour, I also believe that this depends on the resources that are available to them. Professionals working in forensic settings can be considered a part of this resource as they have the expertise to help offenders reduce their risk factors and increase their protective factors. As such, engaging with the present research has increased my awareness, not only of the potential impact of implicit theories on outcomes for offenders, but also the contexts which may contribute towards alignment with a more fixed mindset (e.g., contexts which negatively impact a practitioner's available mental resource).

The research has shed light on the need for increased awareness and monitoring of implicit theories within my own clinical practice and supervision. As a forensic psychologist who regularly offers consultation to non-psychology professionals and who supervises unqualified staff, I am now more minded to consider the potential impact of implicit theories of my colleagues who may be less aware of these processes, as well as my own. Here, I have an opportunity to bring these ideas to the awareness of other practitioners working with challenging clients in challenging contexts that may diminish the ability to think about the malleability of others; this is a responsibility I will take forward into my professional career.

Conclusions

Individual with sexual convictions continue to be highly stigmatised in society and attract scepticism regarding their ability to change. Desistance, in part, relies on the ability of the professionals they work with to instil the possibility of change. As such, understanding the impact of implicit theories in response to ISOs has important clinical implications for how professionals can work effectively with this population.

This thesis has highlighted the positive impact of growth mindsets on attitudes, punitiveness and rehabilitative support for offenders more generally. Professionals who adopt growth mindsets and therefore believe in one's capacity to change display more positive attitudes towards ISOs and make more positive risk management judgements which are likely to promote decisions that align with strength-based models of rehabilitation. These findings suggest that there may be benefit in increasing awareness about the influence of implicit theories amongst forensic practitioners, whilst also introducing mindset-enhanced interventions into forensic mental healthcare settings through training and supervision. Professionals in everyday care roles (e.g., nurses and HCSWs) are less likely to adopt incremental ways of thinking compared to those in more therapy-oriented roles (e.g., psychology). This provides a logical starting point for future research into promoting growth mindsets amongst forensic professionals. By doing so there is the potential to create a therapeutic environment that reduces negative bias and its negative impact, in the hope of successfully addressing sexual offending behaviour and preventing further victimisation.

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Appendices

Appendix A: Search strategies

Search Strategy: PQDT

- 1 (implicit near/2 theor*)
 - 2 (entit* near/2 theor*)
 - 3 (increment* near/2 theor*)
 - 4 (incrementalist* or incrementality)
 - 5 (entitist* or entitativity)
 - 6 SU.EXACT("fixed mindset")
 - 7 SU.EXACT("growth mindset")
 - 8 **1 or 2 or 3 or 4 or 5 or 6 or 7:** noft(implicit near/2 theor*) OR noft(entit* near/2 theor*) OR noft(increment* near/2 theor*) OR noft(incrementalist* or incrementality) OR noft(entitist* or entitativity) OR SU.EXACT("fixed mindset") OR SU.EXACT("growth mindset")
 - 9 offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*
sex* near/2 (misconduct* OR behavior* OR behaviour*)
 - 10 transgress*
 - 11
 - 12 **9 or 10 or 11:** noft(offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*) OR noft(sex* near/2 (misconduct* OR behavior* OR behaviour*)) OR noft(transgress*)
 - 13 **8 and 12**
(noft(implicit near/2 theor*) OR noft(entit* near/2 theor*) OR noft(increment* near/2 theor*) OR noft(incrementalist* or incrementality) OR noft(entitist* or entitativity) OR SU.EXACT("fixed mindset") OR SU.EXACT("growth mindset")) AND (noft(offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*) OR noft(sex* near/2 (misconduct* OR behavior* OR behaviour*)) OR noft(transgress*))
-

Search Strategy: ASSIA

- 1 MAINSUBJECT.EXACT.EXPLODE("Implicit theories")
- 2 (implicit near/2 theor*)
- 3 (entit* near/2 theor*)
- 4 (increment* near/2 theor*)
- 5 (incrementalist* or incrementality)
- 6 (entitist* or entitativity)
- 7 SU.EXACT("fixed mindset")
- 8 SU.EXACT("growth mindset")
- 9 **1 or 2 or 3 or 4 or 5 or 6 or 7:** MAINSUBJECT.EXACT.EXPLODE("Implicit theories") OR noft(implicit near/2 theor*) OR noft(entit* near/2 theor*) OR noft(increment* near/2 theor*) OR noft(incrementalist* or incrementality) OR noft(entitist* or entitativity) OR SU.EXACT("fixed mindset") OR SU.EXACT("growth mindset")
- 10 MAINSUBJECT.EXACT("Crime") OR MAINSUBJECT.EXACT("Delinquency") OR MAINSUBJECT.EXACT.EXPLODE("Criminal behaviour") OR MAINSUBJECT.EXACT("Offenders") OR MAINSUBJECT.EXACT.EXPLODE("Antisocial behaviour")
- 11 sex* near/2 (misconduct* OR behavior* OR behaviour*)
- 12 transgress*
- 13 offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*
- 14 **9 or 10 or 11**
(MAINSUBJECT.EXACT("Crime") OR MAINSUBJECT.EXACT("Delinquency") OR MAINSUBJECT.EXACT.EXPLODE("Criminal behaviour") OR MAINSUBJECT.EXACT("Offenders") OR MAINSUBJECT.EXACT.EXPLODE("Antisocial behaviour")) OR noft(sex* near/2 (misconduct* OR behavior* OR behaviour*)) OR noft(transgress*) OR noft(offend* OR offenc* OR offens* OR assault*

OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*)

15 **8 and 12**

((MAINSUBJECT.EXACT("Crime") OR MAINSUBJECT.EXACT("Delinquency") OR MAINSUBJECT.EXACT.EXPLODE("Criminal behaviour") OR MAINSUBJECT.EXACT("Offenders") OR MAINSUBJECT.EXACT.EXPLODE("Antisocial behaviour")) OR noft(sex* near/2 (misconduct* OR behavior* OR behaviour*)) OR noft(transgress*) OR noft(offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*)) AND (MAINSUBJECT.EXACT.EXPLODE("Implicit theories") OR noft(implicit near/2 theor*) OR noft(entit* near/2 theor*) OR noft(increment* near/2 theor*) OR noft(incrementalist* or incrementality) OR noft(entitist* or entitativity) OR SU.EXACT("fixed mindset") OR SU.EXACT("growth mindset"))

Search Strategy: Ovid PsychINFO 1806 to Present

- 1 exp Implicit Attitudes/
 - 2 (implicit adj2 (theor* or attitude* or belief*)).mp.
 - 3 (entit* adj2 (theor* or attitude* or belief*)).mp.
 - 4 (increment* adj2 (theor* or attitude* or belief*)).mp.
 - 5 (incrementalist* or incrementality).mp.
 - 6 (entitist* or entitativity).mp.
 - 7 "fixed mindset*".mp.
 - 8 "growth mindset*".mp.
 - 9 **1 or 2 or 3 or 4 or 5 or 6 or 7 or 8**
 - 10 exp Crime/
 - 11 exp Criminal Behavior/
 - 12 exp Criminal Offenders/
 - 13 exp Sex Offenses/
 - 14 exp Child Abuse/
 - 15 exp Physical Abuse/
 - 16 exp Sexual Abuse/
 - 17 transgress*.mp.
 - 18 (offend* or offenc* or offens* or assault* or murder* or crime* or criminal* or perpetrator* or violen* or abus* or misconduct* or delinquen* or wrongd* or antisocial* or "anti-social").mp.
 - 19 (sex* adj2 (misconduct* or behavior* or behaviour*)).mp.
 - 20 exp Morality/
 - 21 moral*.mp.
 - 22 **10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19**
 - 23 **9 and 22**
-

Search Strategy: Ovid PsycARTICLES

- 1 (implicit adj2 theor*).mp.
 - 2 (entit* adj2 theor*).mp.
 - 3 (increment* adj2 theor*).mp.
 - 4 (incrementalist* or incrementality).mp.
 - 5 (entitist* or entitativity).mp.
 - 6 "fixed mindset*".mp.
 - 7 "growth mindset*".mp.
 - 8 **1 or 2 or 3 or 4 or 5 or 6 or 7**
 - 9 (offend* or offenc* or offens* or assault* or murder* or crime* or criminal* or perpetrator* or violen* or abus* or misconduct* or delinquen* or wrongd* or antisocial* or "anti-social").mp.
 - 10 (sex* adj2 (misconduct* or behavior* or behaviour*)).mp.
 - 11 transgress*.mp.
 - 12 **9 or 10 or 11**
 - 13 **8 and 12**
-

Search Strategy: Scopus

- 1 TITLE-ABS-KEY(implicit W/2 theor*)
 - 2 TITLE-ABS-KEY(entit* W/2 theor*)
 - 3 TITLE-ABS-KEY(increment* W/2 theor*)
 - 4 TITLE-ABS-KEY(incrementalist* or incrementality)
 - 5 TITLE-ABS-KEY(entitist* or entitativity)
 - 6 TITLE-ABS-KEY("fixed mindset")
 - 7 TITLE-ABS-KEY("growth mindset")
 - 8 **1 or 2 or 3 or 4 or 5 or 6 or 7:** (TITLE-ABS-KEY(implicit W/2 theor*)) OR (TITLE-ABS-KEY(entit* W/2 theor*)) OR (TITLE-ABS-KEY(increment* W/2 theor*)) OR (TITLE-ABS-KEY(incrementalist* OR incrementality)) OR (TITLE-ABS-KEY(entitist* OR entitativity)) OR (TITLE-ABS-KEY("fixed mindset")) OR (TITLE-ABS-KEY("growth mindset"))
 - 9 TITLE-ABS-KEY
(offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*)
 - 10 TITLE-ABS-KEY(sex* W/2 (misconduct* OR behavior* OR behaviour*))
 - 11 TITLE-ABS-KEY(transgress*)
 - 12 **9 or 10 or 11:** (TITLE-ABS-KEY(offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*)) OR (TITLE-ABS-KEY(sex* W/2(misconduct* OR behavior* OR behaviour*))) OR (TITLE-ABS-KEY(transgress*))
 - 13 **8 and 12:** ((TITLE-ABS-KEY(implicit W/2 theor*)) OR (TITLE-ABS-KEY(entit* W/2 theor*)) OR (TITLE-ABS-KEY(increment* W/2 theor*)) OR (TITLE-ABS-KEY(incrementalist* OR incrementality)) OR (TITLE-ABS-KEY(entitist* OR entitativity)) OR (TITLE-ABS-KEY("fixed mindset")) OR (TITLE-ABS-KEY("growth mindset"))) AND ((TITLE-ABS-KEY(offend* or offenc* or offens* or assault* or murder* or crime* or criminal* or perpetrator* or violen* or abus* or misconduct* or delinquen* or wrongd* or antisocial*)) OR (TITLE-ABS-KEY(sex* W/2 (misconduct* or behavior* or behaviour*))) OR (TITLE-ABS-KEY(transgress*)))
-

Search Strategy: Web of Science

- 1 TS=(implicit near/2 theor*)
 - 2 TS=(entit* near/2 theor*)
 - 3 TS(increment* near/2 theor*)
 - 4 TS=(incrementalist* or incrementality)
 - 5 TS=(entitist* or entitativity)
 - 6 TS=("fixed mindset")
 - 7 TS=("growth mindset")
 - 8 **1 or 2 or 3 or 4 or 5 or 6 or 7**
 - 9 TS=(offend* OR offenc* OR offens* OR assault* OR murder* OR crime* OR criminal* OR perpetrator* OR violen* OR abus* OR misconduct* OR delinquen* OR wrongd* OR antisocial*)
 - 10 TS=(sex* near/2 (misconduct* OR behavior* OR behaviour*))
 - 11 TS=(transgress*)
 - 12 **9 or 10 or 11**
 - 13 **8 and 12**
-

Search Strategy: Ovid Emabse 1974 to Present

- 1 (implicit adj2 (theor* or attitude* or belief*)).mp.
 - 2 (entit* adj2 (theor* or attitude* or belief*)).mp.
 - 3 (increment* adj2 (theor* or attitude* or belief*)).mp.
 - 4 (incrementalist* or incrementality).mp.
 - 5 (entitist* or entitativity).mp.
 - 6 "fixed mindset".mp.
 - 7 "growth mindset".mp.
 - 8 **1 or 2 or 3 or 4 or 5 or 6 or 7**
 - 9 exp Crime/
 - 10 exp Criminal Behavior/
 - 11 exp sex crime/
-

-
- 12 exp offender/
 - 13 exp child abuse/
 - 14 exp physical abuse/
 - 15 exp emotional abuse/
 - 16 exp antisocial behaviour/
 - 17 transgress*.mp.
 - 18 (offend* or offenc* or offens* or assault* or murder* or crime* or criminal* or perpetrator* or violen* or abus* or misconduct* or delinquen* or wrongd* or antisocial* or "anti-social").mp.
 - 19 (sex* adj2 (misconduct* or behavior* or behaviour*)).mp.
 - 20 exp Morality/
 - 21 moral*.mp.
 - 22 **9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21**
 - 23 **8 and 23**
-

Search Strategy: Ovid MEDLINE 1974 to Present

- 1 (implicit adj2 (theor* or attitude* or belief*)).mp.
 - 2 (entit* adj2 (theor* or attitude* or belief*)).mp.
 - 3 (increment* adj2 (theor* or attitude* or belief*)).mp.
 - 4 (incrementalist* or incrementality).mp.
 - 5 (entitist* or entitativity).mp.
 - 6 "fixed mindset".mp.
 - 7 "growth mindset".mp.
 - 8 **1 or 2 or 3 or 4 or 5 or 6 or 7**
 - 9 exp Crime/
 - 10 exp Criminals/
 - 11 exp violence/
 - 12 exp Child Abuse/
 - 13 exp Physical Abuse/
 - 14 exp Sexual Abuse/
 - 15 exp Sex Offenses/
 - 16 transgress*.mp.
 - 17 (offend* or offenc* or offens* or assault* or murder* or crime* or criminal* or perpetrator* or violen* or abus* or misconduct* or delinquen* or wrongd* or antisocial* or "anti-social").mp.
 - 18 (sex* adj2 (misconduct* or behavior* or behaviour*)).mp.
 - 19 exp Morality/
 - 20 moral*.mp.
 - 21 **9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20**
 - 22 **8 and 21**
-

Appendix B: Screening and selection tool

Reviewer Name:

Date:

Title:

Author name / Study ID:

Journal:

Year:

Please double click to check the box where necessary

	INCLUDE	EXCLUDE
Population	<input type="checkbox"/> Adult participants aged 18 years or over	<input type="checkbox"/> Participants aged under 18 years.
Exposure / Independent Variable	<input type="checkbox"/> Implicit theories (of others) are self-reported/experimentally manipulated and classified using the entity-incremental dichotomy, either a binominal or continuous scale. Note that implicit theories may also be referred to as fixed/stable mindsets and growth/malleable mindsets.	<input type="checkbox"/> The participant is an offender. <input type="checkbox"/> Participants ITs have not been measured using the entity-incremental dichotomy.
Outcomes	<input type="checkbox"/> The participant is asked to assess an offender, operationalised as an individual engaging in any type of criminal behaviour; that is behaviour where someone has committed an illegal act.	<input type="checkbox"/> The individual being assessed is not an offender. <input type="checkbox"/> The participant is asked to make self-judgements.
AND		
	<input type="checkbox"/> Attitudes – a set of emotions, beliefs and behaviours (affect, cognition, behaviour; Breckler, 1984) that are expressed by evaluating a particular object with some degree of favour or unfavour” (Eagly & Chaiken, 1993, p.1)	
OR		
	<input type="checkbox"/> Punitiveness – “support for harsher criminal sanctions and crime policies” (Maruna & King, 2009). This may involve the quantity of people punished, the intensity of punishment and the length of punitive sanction.	
OR		
	<input type="checkbox"/> Rehabilitation Support – support for the process of re-educating and retraining those who commit crime to re-integrate back into society.	
Study Type	<input type="checkbox"/> Quantitative Studies <input type="checkbox"/> Mixed-method studies with quantitative element	<input type="checkbox"/> Solely qualitative data <input type="checkbox"/> Reviews, editorials, commentaries, or opinion papers <input type="checkbox"/> Studies not written in English, where the researcher has no viable means of translation
Overall Decision	<input type="checkbox"/> INCLUDE	<input type="checkbox"/> EXCLUDE
Notes:		

Appendix C:
Quality assessment tool

**CHECKLIST FOR ANALYTICAL
CROSS SECTIONAL STUDIES**

Critical Appraisal tools for use in JBI Systematic Reviews

INTRODUCTION

JBI is an international research organisation based in the Faculty of Health and Medical Sciences at the University of Adelaide, South Australia. JBI develops and delivers unique evidence-based information, software, [education](#) and training designed to improve healthcare practice and health outcomes. With over 70 Collaborating Entities, servicing over 90 countries, JBI is a recognised global leader in evidence-based healthcare.

JBI Systematic Reviews

The core of evidence synthesis is the systematic review of literature of a particular intervention, condition or issue. The systematic review is essentially an analysis of the available literature (that is, evidence) and a judgment of the effectiveness or otherwise of a practice, involving a series of complex steps. JBI takes a particular view on what counts as evidence and the methods utilised to synthesise those different types of evidence. In line with this broader view of evidence, JBI has developed theories, methodologies and rigorous processes for the critical appraisal and synthesis of these diverse forms of evidence in order to aid in clinical decision-making in healthcare. There now exists JBI guidance for conducting reviews of effectiveness research, qualitative research, prevalence/incidence, etiology/risk, economic evaluations, text/opinion, diagnostic test accuracy, mixed-methods, umbrella reviews and scoping reviews. Further information regarding JBI systematic reviews can be found in the [JBI Evidence Synthesis Manual](#).

JBI Critical Appraisal Tools

All systematic reviews incorporate a process of critique or appraisal of the research evidence. The purpose of this appraisal is to assess the methodological quality of a study and to determine the extent to which a study has addressed the possibility of bias in its design, conduct and analysis. All papers selected for inclusion in the systematic review (that is – those that meet the inclusion criteria described in the protocol) need to be subjected to rigorous appraisal by two critical appraisers. The results of this appraisal can then be used to inform synthesis and interpretation of the results of the study. JBI Critical appraisal tools have been developed by the JBI and collaborators and approved by the JBI Scientific Committee following extensive peer review. Although designed for use in systematic reviews, JBI critical appraisal tools can also be used when creating Critically Appraised Topics (CAT), in journal clubs and as an educational tool.

JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL CROSS SECTIONAL STUDIES

Reviewer: _____

Date: _____

Author: _____ Year: _____ Record Number: _____

	Yes	No	Unclear	Not applicable
1. Were the criteria for inclusion in the sample clearly defined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were the study subjects and the setting described in detail?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Was the exposure measured in a valid and reliable way?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. <u>Were</u> confounding factors identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were strategies to deal with confounding factors stated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Were the outcomes measured in a valid and reliable way?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Was appropriate statistical analysis used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall appraisal: Include Exclude Seek further info **Score** _____

Comments:

EXPLANATION OF ANALYTICAL CROSS SECTIONAL STUDIES CRITICAL APPRAISAL

How to cite: Moola S, Munn Z, Tufanaru C, Aromataris E, Sears K, Sfetcu R, Currie M, Qureshi R, Mattis P, Lisy K, Mu P-F. Chapter 7: Systematic reviews of etiology and risk . In: Aromataris E, Munn Z (Editors). *JBI Manual for Evidence Synthesis*. JBI, 2020. Available from <https://synthesismanual.jbi.global>

Analytical cross sectional studies Critical Appraisal Tool

Answers: Yes, No, Unclear or Not/Applicable

1. Were the criteria for inclusion in the sample clearly defined?

The authors should provide clear inclusion and exclusion criteria that they developed prior to recruitment of the study participants. The inclusion/exclusion criteria should be specified (e.g., risk, stage of disease progression) with sufficient detail and all the necessary information critical to the study.

2. Were the study subjects and the setting described in detail?

The study sample should be described in sufficient detail so that other researchers can determine if it is comparable to the population of interest to them. The authors should provide a clear description of the population from which the study participants were selected or recruited, including demographics, location, and time period.

3. Was the exposure measured in a valid and reliable way?

The study should clearly describe the method of measurement of exposure. Assessing validity requires that a 'gold standard' is available to which the measure can be compared. The validity of exposure measurement usually relates to whether a current measure is appropriate or whether a measure of past exposure is needed.

Reliability refers to the processes included in an epidemiological study to check repeatability of measurements of the exposures. These usually include intra-observer reliability and inter-observer reliability.

4. Were confounding factors identified?

Confounding has occurred where the estimated intervention exposure effect is biased by the presence of some difference between the comparison groups (apart from the exposure investigated/of interest). Typical confounders include baseline characteristics, prognostic factors, or concomitant exposures (e.g. smoking). A confounder is a difference between the comparison groups and it influences the direction of the study results. A high quality study at the level of cohort design will identify the potential confounders and measure them (where possible). This is difficult for studies where behavioural, attitudinal or lifestyle factors may impact on the results.

5. Were strategies to deal with confounding factors stated?

Strategies to deal with effects of confounding factors may be dealt within the study design or in data analysis. By matching or stratifying sampling of participants, effects of confounding factors can be adjusted for. When dealing with adjustment in data analysis, assess the statistics used in the study. Most will be some form of multivariate regression analysis to account for the confounding factors measured.

6. Were the outcomes measured in a valid and reliable way?

Read the methods section of the paper. If for e.g. lung cancer is assessed based on existing definitions or diagnostic criteria, then the answer to this question is likely to be yes. If lung cancer is assessed using observer reported, or self-reported scales, the risk of over- or under-reporting is increased, and objectivity is compromised. Importantly, determine if the measurement tools used were validated instruments as this has a significant impact on outcome assessment validity.

Having established the objectivity of the outcome measurement (e.g. lung cancer) instrument, it's important to establish how the measurement was conducted. Were those involved in collecting data trained or educated in the use of the instrument/s? (e.g. radiographers). If there was more than one data collector, were they similar in terms of level of education, clinical or research experience, or level of responsibility in the piece of research being appraised?

7. Was appropriate statistical analysis used?

As with any consideration of statistical analysis, consideration should be given to whether there was a more appropriate alternate statistical method that could have been used. The methods section should be detailed enough for reviewers to identify which analytical techniques were used (in particular, regression or stratification) and how specific confounders were measured.

For studies utilizing regression analysis, it is useful to identify if the study identified which variables were included and how they related to the outcome. If stratification was the analytical approach used, were the strata of analysis defined by the specified variables? Additionally, it is also important to assess the appropriateness of the analytical strategy in terms of the assumptions associated with the approach as differing methods of analysis are based on differing assumptions about the data and how it will respond.

Appendix D:
Ethical approval from the University of Nottingham



**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

12 June 2020

Bethany Browne
Forensic Psychologist in Training Doctorate student
c/of Dr Simon Duff
Assistant Professor/Director Stage II Forensic Training
Centre for Forensic and Family Psychology
Division of Psychiatry and Applied Psychology
YANG Fujia Building
University of Nottingham Jubilee Campus
Wollaton Road, Nottingham
NG8 1BB

Dear Ms Browne

Ethics Reference No: FMHS 06-0420 – please always quote	
Study Title: Professionals' Attitudes, Perceptions and Judgements of sexual offenders: The influence of implicit theories and offender representativeness	
Chief Investigator/Supervisor: Dr Simon Duff, Assistant Professor, Centre for Forensic and Family Psychology, Psychiatry and Applied Psychology, School of Medicine.	
Lead Investigators/student: Bethany Browne, Doctorate in Forensic Psychology Top-up student	
Proposed Start Date: 01/09/2019	Proposed End Date: 30/09/2022

Thank you for submitting the above application which was considered at the Committee meeting on 24 April 2020 and the following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 28.03.2020

These have been reviewed and are satisfactory and the study is approved.

Approval 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

Dr Bethan E Phillips, Associate Professor
Clinical, Metabolic & Molecular Physiology, Medical Sciences & Graduate Entry Medicine
Acting Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Appendix E:
Ethical approval from healthcare provider

Outcome of Research and Development core group review

Dear **Bethany Browne**,

Re: Professionals' Attitudes, Perceptions and Judgements of sexual offenders: The influence of implicit theories.

Thankyou for submitting your research proposal/ service evaluation proposal for review by the R&D core group.

We are pleased to inform you that your proposal has been **agreed** by the group.

You are now able to proceed with your study in accordance with the terms outlined in the proposal and the subsequently updated documents provided .

Yours Sincerely

Dr Bobbie Turnbull (Consultant Clinical Psychologist and R&D lead).

On behalf of the R&D core group

20.08.2020

Appendix F:
Email to participants

RE: [REDACTED] Research Study – Views on sexual offending behaviour

Good afternoon,

My name is Bethany Browne, and I am a Trainee Forensic Psychologist at [REDACTED] Hospital Stevenage. I am conducting a **research study** within [REDACTED] Healthcare Services across the UK, which is also part of my Doctorate in Forensic Psychology qualification at the University of Nottingham. The study has been approved by [REDACTED]'s Research & Development team, and the University's Ethics Committee.

I am looking to explore staff members' views of individuals who sexually offend. More specifically, I am interested in the views of MDT members. This includes qualified, assistant, trainee, student and honorary staff members who work within the following disciplines:

- Support worker
- Doctor/Psychiatrist
- Mental Health Nurse
- Psychologist
- Occupational Therapist
- Social Work
- Management (General/Clinical/Ward)

The study will take 10-15 minutes, and your participation will be greatly appreciated. You **will not** be asked to provide identifiable information such as your name, and all responses will be **completely anonymous** and kept **confidential**.

This research hopes to provide new insights into how best to care for individuals who sexually offend, within secure mental healthcare settings. To take part, **please click on the link below**:

<https://bethanybrowne6.wixsite.com/research-survey>

Appendix G:

Participant information sheet

Participant Information

University of Nottingham Faculty of Medicine & Health Sciences Research Ethics Committee
Ref: FMHS 06-0420

General Information

Division of Psychiatry and Applied Psychology
School of Medicine
University of Nottingham
Jubilee Campus
NG8 1BB

Researchers

Bethany Browne	Dr. Simon Duff
Forensic Psychologist in Training	Research Supervisor
University of Nottingham	University of Nottingham

Participant Information

You have been invited to participate in this online survey exploring views about sexual offenders and their offending behaviour. Thank you for your interest in taking part. Please take time to read through this information carefully before agreeing to participate, to ensure you have a full and clear understanding of what will be asked of you in this study.

This study is being carried out by Bethany Browne, a Forensic Psychologist in Training from the University of Nottingham's Division of Psychiatry and Applied Psychology. The aim of this study is to explore people's views about sexual offenders and sexual offending behaviour. We are interested in how different types of people feel and behave towards individuals who have committed crimes of a sexual nature.

The study will take 10-15 minutes. You will first be asked questions about your demographics (e.g. age gender etc). You will then complete two short questionnaires and will be asked for your views on sexual offending. Next you will be given some information about a sexual offence that has taken place and will be asked to make some decisions about the offender. The study will finish with one additional short questionnaire.

We believe there are no known risks associated with this research study; however, this study covers written sexually explicit content which may be uncomfortable for some individuals, and in some cases answering questions about sexual offenders may be sensitive and cause distress. Please be aware that you may choose not to take part in the study, and that during the study you have the right to stop participation at any time should you wish to do so. You can withdraw at any point during the questionnaire for any reason by closing the browser. If distress is experienced, then there are a number of sources of support and information:

- Your GP
- Samaritans: 116 123 (UK), jo@samaritans.org
- Victim support: 08081 689 111
- Cygnet staff support line number: 08003281437

How will your data be used?

Your answers will be completely anonymous, and we will use all reasonable endeavours to keep them confidential. Your participation in this study is entirely voluntary. You can withdraw at any point during the questionnaire for any reason, before submitting your answers by clicking the Exit button/closing the browser. Participation or withdrawal will not affect your relationships and treatment in your place of work. The data will only be uploaded on completion of the questionnaire by clicking the FINISH button.

Your data will be stored in a password-protected file and may be used in academic publications. Your IP address will not be stored. We have included 'a Prefer not to say' option for sensitive questions if you prefer not to answer.

Who will have access to your data?

The University of Nottingham is the data controller for the purposes of the Data Protection. As with any online related activity the risk of a breach is always possible. However, we will do everything possible to ensure your answers in this study will remain anonymous. We will minimize any risks by not collecting personal data, other than basic information necessary for the purposes of the study (e.g., gender and age), and your IP number will not be recorded. All data will be stored on a secure dedicated University of Nottingham web server. Access will be restricted by user identifiers and passwords (encrypted using a one-way encryption method). Electronic data will be backed up every 24 hours to both local and remote media in encrypted format. The data will be kept for a minimum of 7 years and then destroyed.

The results of the study may be published in scientific journals and presented at scientific conferences. The data will be reported anonymously, with any identifying information removed.

If you have any questions about this project, you may contact the Lead Researcher Bethany Browne (bethany.browne@nottingham.ac.uk), or if you have any concerns about any aspect of this study please contact the Research Supervisor Dr Simon Duff (simon.duff@nottingham.ac.uk). If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, E41, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

This study has been reviewed and given a favourable opinion by the University of Nottingham, Faculty of Medicine & Health Sciences Research Ethics Committee. Ref: FMHS 06-0420.

I have read and understood the above information and I confirm that I am 18 years old or older and based in the UK and by clicking the 'Take me to the consent page' and then 'NEXT' button (below) will be asked to indicate my willingness to voluntarily take part in the study. By selecting the 'Thank you but I do not wish to participate' and then the 'NEXT' button I am indicating that I am not willing to take part.

Take me to the consent page

Thank you but I do not wish to participate

Appendix H: Consent form

Consent Page

Ethics Ref: FMHS 06-0420

Please read the following questions:

- I confirm that I have read and understood the information on the previous pages.
- I confirm that I am at least 18 years old and reside in the UK.
- I understand that my participation is voluntary, and I can end the study at any time and withdraw my data by closing the browser.
- I understand that my answers will be anonymous.
- I understand the overall anonymized data from this study may be used in the future for research (with research ethics approval) and teaching purposes.

By responding '**Yes to all questions**' you are opting in to the survey, by responding '**No to at least one question**' you are opting out of the study. Please respond below.

Yes - I consent to take part No - I do not give consent

Appendix I: Participant debrief form

Participant Debrief

In undertaking the study, you completed a number of individual and attitudinal scales, followed by a decision-making task, with regards to a sexual offender. The aim of this study was to explore professionals' attitudes perceptions and judgements of different types of sexual offenders. More specifically we wanted to investigate how professionals from different disciplines view different types of sexual offenders and whether attitudes, perceptions and judgements of sexual offenders are influenced by implicitly held beliefs about whether sexual offenders have the ability to change. This is of clinical importance as endorsement of negative views not only indicates bias against sexual offenders which can negatively affect their treatment, it diminishes their potential to change. This research hopes to inform and improve training initiatives targeted at improving attitudes towards sexual offenders within forensic mental health care settings.

If distress was experienced as a result of taking part in this study, there are a number of sources of support and information:

- Your GP
- Samaritans: 116 123 (UK), jo@samaritans.org
- Victim support: 08081 689 111
- Cygnet staff support line number: 08003281437

We will ensure that your information will be kept anonymous and we will use all reasonable endeavours to keep them confidential. The results of the study may be published in scientific journals and presented at scientific conferences. The data will be reported anonymously, with any identifying information removed.

If you have any questions about this project, you may contact the Lead Researcher Bethany Browne (Bethany.browne@nottingham.ac.uk), or if you have any concerns about any aspect of this study please contact the Research Supervisor Dr Simon Duff (simon.duff@nottingham.ac.uk).

If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, E41, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

This study has been reviewed and given a favourable opinion by the University of Nottingham, Faculty of Medicine & Health Sciences Research Ethics Committee. Ref: FMHS 06-0420.

Appendix J: Demographic questionnaire

Please answer the questions below regarding your demographic information:

Gender

- Male
- Female
- Prefer not to disclose
- Other

If you selected Other, please specify:

Age

Newspaper Preference

- Tabloids Only - (e.g. The Sun, Daily Star, Daily Mail, Mirror)
- Broadsheets Only - (e.g. Daily Telegraph, The Times, The Financial Times, The Guardian)
- Both Tabloids and Broadsheets
- No newspaper
- Prefer not to say

Parental Status

- Parent
- Not a parent

Please specify your full job title

Please select the closest option to your job role regardless of whether you are an honorary, student (on placement), assistant, trainee or qualified professional:

- Support Worker/Healthcare Assisstant
- Psychiatric Doctor
- Mental Health/Psychiatric Nurse
- Psychologist
- Occupational Therapist
- Social Worker
- Management (General/Clinical)

Please specify your highest level of qualification:

- School Leaver - (e.g. GCSE/O-level)
- Further Education - (e.g. A-levels/B-tech)
- Undergraduate Education - (e.g. BSc/BA)
- Postgraduate Education - (e.g. MSc/MA)
- Professional Qualification - (e.g. PhD/Doctorate/Chartership/Registration)
- Other

If you selected Other, please specify:

Experience (in years and months) working in mental health services:

Experience (in years and months) working with people who have offended (i.e. forensic experience):

Have you worked in a professional capacity with a client who has committed a sexual offence?

- Yes
- No

Have you received any training in sex offender assessment and/or management?

- Yes
- No

Have you ever been a victim of a sexual crime?

- Yes
- No
- Prefer not to say

Do you know anyone in a personal capacity (family/friend) who has been a victim of a sexual crime?

- Yes
- No
- Prefer not to say

Appendix K: Implicit theories measure

Please respond to each of the following statements about **people in general** by indicating the extent to which you agree with it.

	Strongly Disagree	Disagree	Probably Disagree	Probably Agree	Agree	Strongly Agree
1. The kind of person someone is, is something very basic about them and it can't be changed very much.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. People can do things differently, but the important parts of who they are can't really be changed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Everyone is a certain kind of person and there is not much that can be done to really change that.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please respond to each of the following statements about **sexual offenders** by indicating the extent to which you agree with it.

	Strongly Disagree	Disagree	Probably Disagree	Probably Agree	Agree	Strongly Agree
1. Whether somebody commits a sexual crime is very much related to who they are as a person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Somebody who has committed a sexual offence is likely to do so again in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sexual offenders cannot be successfully rehabilitated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix L: The 21-item attitude towards sex offenders scale

Please respond to each of the following statements by indicating the extent to which you agree with it.

	Strongly Disagree	Disagree	Probably Disagree	Probably Agree	Agree	Strongly Agree
1. Sex offenders are different from other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Most sex offenders are victims of circumstances and deserve help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sex offenders have feelings like the rest of us	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. It is not wise to trust a sex offender too far	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I think I would like a lot of sex offenders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Give a sex offender an inch and they take a mile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Sex offenders need affection and praise just like anybody else	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Trying to rehabilitate sex offenders is a waste of time and money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Sex offenders are no better or worse than other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. You have to be constantly on your guard with sex offenders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. If you give a sex offender your respect, he'll give you the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Sex offenders only think about themselves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. There are some sex offenders I would trust with my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Most sex offenders are too lazy to earn an honest living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I wouldn't mind living next door to a treated sex offender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Sex offenders are just plain mean at heart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Sex offenders are always trying to get something out of somebody	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Sex offenders are immoral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I would like associating with some sex offenders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Sex offenders only respect brute force	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. If sex offenders do well in prison/hospital, they should be let out on parole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix M: Vignettes

Male Offender Vignette

Alan is a 35-year-old man. Last May he was invited to a work colleague's barbeque, which he attended with his wife. A few hours into the event, Alan went inside to use the bathroom, located on the first floor of his colleague's home. On his way to the bathroom, he passed the bedroom of his colleague's 8-year-old daughter, Sarah, whom he had met on several occasions and knew well. Alan entered the room to find Sarah playing with some toys. Alan sat talking to Sarah for a few minutes, asking her about the toys that she was playing with and what else she had been doing that day. During the interaction, Alan touched Sarah's genitals, telling her that it was a game that adults play. When he stopped, Alan stayed with Sarah for several more minutes, before returning to the barbeque for the remainder of the evening. The following day, Sarah told her parents about what Alan did, and the police were informed. Alan was arrested and charged with a sexual offence. His trial begins in next month.

Female Offender Vignette

Amanda is a 35-year-old woman. Last May she was invited to a work colleague's barbeque, which she attended with her husband. A few hours into the event, Amanda went inside to use the bathroom, located on the first floor of her colleague's home. On her way to the bathroom, she passed the bedroom of her colleague's 8-year-old son, Thomas, whom she had met on several occasions and knew well. Amanda entered the room to find Thomas playing with some toys. Amanda sat talking to Thomas for a few minutes, asking him about the toys that he was playing with and what else he had been doing that day. During the interaction, Amanda touched Thomas's genitals, telling him that it was a game that adults play. When she stopped, Amanda stayed with Thomas for several more minutes, before returning to the barbeque for the remainder of the evening. The following day, Thomas told his parents about what Amanda did, and the police were informed. Amanda was arrested and charged with a sexual offence. Her trial begins in next month.

Juvenile Offender Vignette

Adam is a 14-year-old boy. Last May he attended a barbeque with his parents. A few hours into the event, Adam went inside to use the bathroom, located on the first floor of the property. On his way to the bathroom, he passed the bedroom of his father's colleague's 8-year-old daughter, Sarah, whom he had met on several occasions and knew relatively well. Adam entered the room to find Sarah playing with some toys. Adam sat talking to Sarah for a few minutes, asking her about the toys that she was playing with and what else she had been doing that day. During the interaction, Adam touched Sarah's genitals, telling her that it was a game that he had heard about, that adults play. When he stopped, Adam stayed with Sarah for several more minutes, before returning to the barbeque for the remainder of the evening. The following day, Sarah told her parents about what Adam did, and the police were informed. Adam was arrested and charged with a sexual offence. His trial begins in next month.

Appendix N: Risk management questions

To what extent is Alan at risk of sexual re-offending (committing a sexual offence again) in the future?

	0	1	2	3	4	5	6	7	8	9	10	
Not at all likely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Highly likely

What level of effort or security will be required for Alan to prevent further sexual offending?

	0	1	2	3	4	5	6	7	8	9	10	
Low security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High security

What would be the severity of psychological and/or physical harm to Alan's victims?

	0	1	2	3	4	5	6	7	8	9	10	
Low severity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High severity

If Alan were to remain in the community, what is the risk that sexual offending would occur imminently (i.e. how soon would sexual offending occur)?

	0	1	2	3	4	5	6	7	8	9	10	
Not at all soon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Very soon

To what extent is Alan likely to benefit from psychological intervention (therapy) in reducing his risk of sexual re-offending?

	0	1	2	3	4	5	6	7	8	9	10	
Not at all likely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Very likely

To what extent is Alan likely to benefit from psychopharmacological intervention (medication) in reducing his risk of sexual re-offending?

	0	1	2	3	4	5	6	7	8	9	10	
Not at all likely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Very likely

What do you think the reasons were for Alan committing the sexual offence?

Appendix O: The perceptions of sex offenders scale

Please respond to each of the following statements by indicating the extent to which you agree with it:

	Strongly Disagree	Disagree	Probably Disagree	Probably Agree	Agree	Strongly Agree
1. With support and therapy, someone who committed a sexual offence can learn to change their behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. People who commit sex offences should lose their civil rights (e.g. voting, privacy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The death penalty should be reintroduced for sex offenders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. People are far too on edge about the risks posed by sex offenders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. More sex offenders should be given sentences in the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Sex offenders prefer to stay home alone rather than be around lots of people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Most sex offenders do not have close friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Sex offenders have difficulty making friends, even if they try real hard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The prison sentences sex offenders receive are much too long when compared to the sentence lengths for other crimes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. People who commit sex offenses should be subject to harsh restrictions on their liberty for the rest of their lives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Trying to rehabilitate a sex offender is a waste of time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Sex offenders should wear tracking devices so their location can be pinpointed at any time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Only a few sex offenders are dangerous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Most sex offenders are unmarried men	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. It's not if a sex offender commits another crime, it's when	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Most sex offenders keep to themselves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Sex offenders should have all of their details announced to local communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Convicted sex offenders should never be released from prison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Sex offenders will almost always commit further offences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Some sex offenders should be allowed to work in schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>