

**ATTITUDES TOWARDS  
MENTALLY DISORDERED  
OFFENDERS**

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**Thesis submitted to the University of Nottingham for the degree of  
Doctorate in Forensic Psychology**

**(D.Foren.Psy)**

**August 2017**



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## THESIS ABSTRACT

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### **BACKGROUND**

This thesis provides an investigation into the assessment of attitudes towards mentally disordered offenders. Attention is paid to the adaptation and application of a psychometric instrument designed to measure attitudes towards this population. The aim is to facilitate attitude improvement of those responsible for the care, treatment, and rehabilitation of mentally disordered offenders.

### **METHODOLOGY**

The range of methods employed to explore this topic include a systematic review, psychometric critique, and two primary empirical research studies.

### **RESULTS**

The systematic review yielded 534 publications, seven of which were reviewed. Three instruments assessing attitudes towards prisoners were identified. This was followed by a critique of the most widely used psychometric; the Attitudes Toward Prisoners scale (Melvin, Gramling, & Gardener, 1985). Based upon this, the first empirical study validates an adapted version of the scale; Attitudes Towards Mentally Disordered Offenders scale (ATMDO). Analysis demonstrates a three factor structure, robust reliability (internal consistency and test-retest reliability) and validity. Between groups attitudinal differences are explored and a model is presented. In the second empirical research study the ATMDO demonstrates significant correlation of scores on factor one (Treatment) and three (Risk) with observed negative behaviours of staff members in forensic mental health settings.

### **CONCLUSIONS**

The ATMDO has robust psychometric properties and demonstrates the potential for application assessing attitudes towards mentally disordered offenders within clinical settings. Findings can inform interventions targeted at staff members to improve their attitudes towards this population. Subsequently avoiding future potential for harm, improving care, treatment, and rehabilitation of mentally disordered offenders.

## THESIS OVERVIEW

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This research thesis aims to provide an investigation into the psychometric assessment of attitudes towards offender populations. It specifically focuses upon the adaptation and validation of a scale to measure attitudes towards offenders with mental disorders. The ultimate aim is to facilitate the assessment and monitoring of attitudes towards this population, to enable future targeting and improvement of such attitudes of forensic mental health staff members. Subsequently enhancing the care, treatment, and rehabilitation prospects for offenders with mental disorders. The chapters follow in sequence and are structured to narrate the investigation, development, validation, and evaluation of this scale. The chapters are designed to be sufficiently varied in focus and method to stand as independent studies.

Chapter one provides an introduction to the thesis, justifying the original focus, content, and aims. Initially defining and exploring the term mentally disordered offender (MDO), recent investigations into cases of abuse and neglect of this population are highlighted. The potential impact of attitudes upon the care and treatment of MDOs within a variety of settings across the offender pathway is then explored. The concept of attitude construction and measurement approaches is discussed in light of this. Following this, the potential to change attitudes of those considered responsible for care of this population will be briefly evaluated. Finally, an introduction to the aims of the thesis is provided.

Chapter two investigates the literature regarding attitudes towards prisoner populations. In light of the overall thesis' focus on MDOs, the chapter's focus on prisoner populations is justified due to the lack of instruments developed to assess attitudes towards MDO populations. The potential impact attitudes towards prisoner populations may have upon a range of factors associated with prisoner care, reform, and rehabilitation is explored. The chapter goes on to systematically review existing instruments which have been developed and utilised to explore attitudes towards prisoner populations, in terms of their focus, quality, and psychometric properties. To date no such review has taken place. It highlights an apparent gap regarding attitudes towards MDO populations and forms the basis for identifying instruments with the potential for further adaptations.

Chapter three evaluates the most commonly applied and published instrument designed to explore attitudes towards prisoner populations, as highlighted in chapter two. The Attitudes Toward Prisoners Scale (ATP; Melvin, Gramling, & Gardener, 1985) is evaluated in terms of its internal structure, psychometric properties, and applicability. This chapter highlights the relative robustness in terms of psychometric properties, potential areas of improvement, and adaptability of the ATP.

Chapter four, following on from chapter three's conclusions and recommendations, uses the ATP (Melvin et al., 1985) as a prototype from which to develop a scale focusing upon attitudes towards MDOs. The process of adapting, developing, and validating the Attitudes Towards Mentally Disordered Offenders scale (ATMDO) is comprehensively detailed. The chapter comprises two key studies in addition to an exploration of the impact of demographic characteristics upon ATMDO scores. Initially the psychometric properties of the ATMDO are commented upon, including a rotated principal component analysis of the scale's structure. The reliability of the scale is commented upon by exploring the scale's internal consistency and test-retest reliability over a two week period. The validity of the scale is commented upon by exploring the ATMDO's convergent validity in relation to the ATP (Melvin et al., 1985) and potential to be affected by impression management by utilising the Impression Management items of the Paulhus Deception Scale Balanced Inventory of Desirable Responding (PDS; Paulhus, 1991). Secondly, the content validity of the scale is further assessed utilising contrasted groups methodology, comparing the attitudes of the general population, forensic mental health workers (both professional and paraprofessional). The influence of both demographic and occupational characteristics upon ATMDO score is explored utilising regression analysis. A proposed model detailing the impact of factors such as exposure and training upon attitudes towards MDOs are presented and revised in light of the study's findings.

Chapter five utilises a behaviour observation methodology to assess the criterion related validity of the ATMDO, developed in chapter four. The relationship between attitude construction and behavioural manifestation is explored within a clinical forensic setting. It assesses the ATMDO not only in relation to its clinical utility but also its proposed theoretical underpinnings.



Finally, chapter six draws together all aspects of the thesis, which are then discussed. The aims of the thesis are reviewed in light of the findings. The chapter concludes by reviewing the implications of the findings, and commenting upon future research and application.

## STATEMENT OF AUTHORSHIP AND PUBLICATION

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### CHAPTER TWO

The results of Chapter two have been presented as a poster at the following professional conference:

**Ashworth, S.** & Tully, R. J. (2016, October). *A systematic review exploring the quality and effectiveness of tools currently utilised to measure attitudes towards prisoner populations; exploring reliability and validity*. Research in Forensic Mental Health Services Conference, London, UK.

### CHAPTER FOUR

The results of Chapter four have been presented as a poster at the following professional conferences:

**Ashworth, S.,** Mooney, P. & Tully, R. J. (2016, May). *An Exploratory Analysis of a Scale to Measure Attitudes Towards Mentally Disordered Offenders*. CLAHRC East Midlands Institute of Mental Health Conference, Nottingham, UK.

**Ashworth, S.,** Mooney, P. & Tully, R. J. (2016, June). *An Exploratory Analysis of a Scale to Measure Attitudes Towards Mentally Disordered Offenders*. Division of Forensic Psychology Conference, Brighton, UK.

**Ashworth, S.,** Mooney, P. & Tully, R. J. (2016, October). *An Exploratory Analysis of a Scale To Measure Attitudes Towards Mentally Disordered Offenders*. Research in Forensic Mental Health Services Conference, London, UK

## ACKNOWLEDGEMENTS

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Firstly, I would like to thank my academic supervisor Dr Ruth J. Tully for her support and guidance throughout the Doctorate process. Your experience and expertise have been instrumental in shaping me into the Psychologist I am developing into. Thank you for pushing me, even when I did not want to be pushed; for reassuring me, when I needed it most, and finally, for always replying to my emails, no matter how trivial they may have seemed!

To Professor Kevin Browne, thank you for supporting me through the final process of my submission, your input has been extremely valuable.

I am grateful to my employer Partnerships in Care for providing me the opportunity to conduct my research, without which, this thesis would not have been possible. I would additionally like to mention Nottinghamshire Healthcare NHS Trust for also supporting my research endeavours.

I would specifically like to thank my clinical supervisor and line manager, Paul Mooney, for being supportive of my career pathway. His approach to balancing clinical work, academic requirements, and a life (whilst remaining relatively sane) has been invaluable. I would also like to thank my colleagues for their advice and support. The office really has been a place of understanding when I have potentially not been at my best!

Finally, I would like to thank my friends and family. I cannot do justice to the unwavering, unconditional, unreserved support you have given me but I hope you know how much I value it. Thank you for always listening, for always being interested (or at least pretending to be), and for just being there. You have all ensured I maintain a hold on what is important in the world.

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(reprint)

## GLOSSARY OF TERMS

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<b>ASSIA</b>	Applied Social Sciences Index and Abstracts
<b>ATI</b>	Attitudes Toward Inmates
<b>ATMDO</b>	Attitudes Towards Mentally Disordered Offenders scale
<b>ATP</b>	Attitudes Toward Prisoners scale
<b>APSH</b>	Attitudes Towards Prisoners who Self Harm scale
<b>ATS</b>	Attitudes Toward Sexual Offenders scale
<b>CJS</b>	Criminal Justice System
<b>CPS</b>	Crown Prosecution Service
<b>DoH</b>	Department of Health
<b>EMBASE</b>	Excerpta Medica dataBASE
<b>FFM</b>	Friend and/or Family Member
<b>FMH</b>	Forensic Mental Health
<b>FMHP</b>	Forensic Mental Health Professional
<b>FMHPP</b>	Forensic Mental Health Para Professional
<b>FMHW</b>	Forensic Mental Health Workers
<b>GP</b>	General Population
<b>LD</b>	Learning Disability
<b>MDO</b>	Mentally Disordered Offender
<b>MI</b>	Mental Illness
<b>MoJ</b>	Ministry of Justice
<b>NCJRS</b>	National Criminal Justice Reference Service
<b>NHS</b>	National Health Service
<b>PD</b>	Personality Disorder
<b>PDS-IM</b>	Paulhus Deception Scale – Impression Management



## **RATIONALE FOR CHAPTER ONE**

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Chapter one aims to provide an introduction to the thesis, justifying its focus, content, and subsequent aims. Initially, the term 'mentally disordered offender' will be defined and explored, followed by an examination of recent cases involving mistreatment and abuse of such populations. The influence of individuals' attitudes upon such behaviours will be discussed briefly before addressing the issues relating to attitude construction and methodologies employed to measure such constructs. Following this, a brief overview of interventions deigned to change attitudes and the potential difficulties involved will be provided. Finally, the thesis aims will be outlined in light of these justifications.

## **CHAPTER ONE**

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### **GENERAL INTRODUCTION**

## **INTRODUCTION**

The overall aim of the thesis is to develop the ability to assess and monitor attitudes towards offenders with a mental disorder. Developed instruments can be used in practice to help to increase the ability of organisations and individuals to measure and improve attitudes towards this population. The ultimate aim is to subsequently improve care, treatment, and rehabilitation prospects for mentally disordered offenders.

## **MENTALLY DISORDERED OFFENDERS**

In the United Kingdom (UK), the term 'mental disorder' was applied throughout Section 1(2) of the Mental Health Act (2007) which amended Section 1(2) of the Mental Health Act (1983). The term refers to any disorder or disability of the mind. This includes mental illnesses, personality disorders and learning disabilities.

Adopting healthcare terminology, the Crown Prosecution Service (CPS) of England and Wales uses the term 'mentally disordered offender' (MDO) to refer to an individual who has a disability or disorder of the mind and has committed, or is suspected of having committed, a criminal offence. It is a heterogeneous term, referring to a variety of mental disabilities, disorders, and offences.

This classification is relevant to decisions made within the criminal justice system (CJS) regarding liaison and diversion strategies employed, consideration regarding fitness to plead, and sentencing and disposal options. Consideration of this population, as distinct from general offenders, is essential due to the additional specialised needs regarding care and treatment (Bradley, 2009).

There have been several high profile cases of neglect and even abuse of such individuals detained within secure forensic mental health facilities in the UK. These have led to serious case reviews investigating the treatment of individuals within secure forensic mental health services diagnosed with mental disorders including learning disability, autism spectrum disorders, mental health conditions, and/or demonstrated behaviours described as challenging (e.g. Flynn & Citarella, 2012).

It has become evident that some MDOs are not receiving the appropriate care and treatment they require for effective rehabilitation (Bradley, 2009). It has been claimed the reasons for such poor treatment need to be addressed to minimise

potential future victimisation whilst maximising effective rehabilitation and reintegration opportunities (Bradley, 2009). It has been suggested that by examining attitudes it is possible to explore the potential for behavioural responses (Glasman & Albarracín, 2006), subsequently highlighting clinical implications regarding offender populations (e.g. Harper, Hogue, & Bartels, 2017). Therefore, the exploration of attitudes towards MDOs may have the potential to inform attempts to address this issue.

From a review of the literature to date, there is an apparent paucity of research and validated psychometric instruments focusing upon attitudes towards this population specifically. Therefore, exploration of the literature and psychometric instruments regarding attitudes towards comparable populations may be beneficial to inform future development or adaptation of psychometric tools. Attitudes towards prisoner populations have received increased academic attention (Hirshfield & Piquero, 2010) and may therefore provide the basis for future development focusing upon more specific offender populations such as MDOs.

## **ATTITUDES**

To address the matter regarding MDO populations, the UK Department of Health (DoH, 2012) issued a report entitled Transforming Care. It states that in addition to policy improvement regarding regulation and inspection of such settings, emphasis needs to be placed upon the development of a “supportive, open and positive culture in our care system” (p.5). The report additionally highlights the need to promote “compassionate care across the system” (p.5). This has led the issue of attitudes and behaviour of individuals towards this population to become politically significant. A steering group led by Sir Steven Bubb (Bubb, 2014) called for individuals “with the right values, attitudes, training and experience” (p.41) to be responsible for the care of potentially challenging yet still vulnerable populations. In light of this, the need to be able to accurately measure and monitor attitudes held by certain individuals towards MDOs is vital, as has been historically argued (Kropp, Cox, Roesch, & Eaves, 1989).

There is the potential for attitudes towards MDOs to impact upon behaviours of those responsible for their care (DoH, 2012; Bubb, 2014). It has been evidenced that this can result in very serious harm (e.g. serious case reviews). Therefore, it

is imperative that the relationship between these two factors is considered within such environments. To do so, a brief overview of the theoretical construction of attitudes is needed, and is detailed here.

There are many definitions of the term 'attitudes' within the literature (Arnal, 2014). Definitions differ according to the attitude conceptualisation regarding structure and storage (Bohner & Dickell, 2011). However, most definitions contain a degree of evaluative judgement about an object (Haddock & Maio, 2012). Eagly and Chaiken (1993) describe an attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p.1).

Multicomponent models are perhaps the most widely cited regarding attitude construction (Bohner & Dickel, 2011). Rosenberg and Hovland (1960) proposed that attitudes are constructed from components relating to feelings, beliefs, and behaviour. More recently this has given rise to several alternative models, including the Cognition-Affective-Conative model (CAC; Schiffman & Kanuk, 2004), the Affective-Behaviour-Cognition model (ABC; van den Bergh, Manstead, van der Pligt, & Wigboldus, 2006), and the Three-Dimensional model (3D; Jain, 2014). Despite subtle differences, these theories contain three generally accepted attitude elements (Affective, Behavioural, Cognitive; Breckler, 1984).

Such multicomponent models retain a principle of consistency. It is assumed that a person's behaviour correlates with their attitude cognitions and affects. The view that all components are correlated forming a single factor (the attitude) is supported by research (Batson, Chang, Orr, & Rowland, 2002). Although a sound principle, it has been shown to be flawed. Seminal studies demonstrate self-reported cognitive attitudes do not always manifest in consistent behaviours (LaPiere, 1934), although there are methodological flaws with such naturalistic research (Dockery & Bedeian, 1989; Howe & Krosnick, 2017).

However, it can be concluded from meta-analytic data that although attitudes do not dictate behaviours, they are influential in shaping them and substantially predict future behaviour (Kim & Hunter, 1993; Kraus, 1995; Webb & Sheeran, 2006; Glasman & Albarracín, 2006). Correlations are found to be strongest when attitudes are stable and accessible (Glasman & Albarracín, 2006). Therefore, the need to be able to assess and monitor attitudes towards MDOs retains potential

clinical utility. However, the issue of ensuring attitude measurement, in a manner which is valid and reliable, remains.

There is a general acceptance of multicomponent models (Bohner & Dickel, 2011) and their utility in exploring clinical implications regarding offender populations (Harper et al., 2017). However, opinions differ when considering where components lie (Bohner & Dickel, 2011). In contrast to the consistency principle, Wood (2000) proposed that individuals can hold simultaneously positive and negative attitudes regarding the same object. This results in conflict or ambivalence. Expanding upon the concept of concurrently held contradictory attitudes, the Dual Attitude model (Wilson, Lindsay, & Schooler, 2000) describes the concept of implicit and explicit attitudes. It states that several, potentially conflicting, attitudes can co-exist regarding a single object, existing in different levels of consciousness.

Findings from a meta-analysis suggest both implicit and explicit measures show substantial correlations with attitude-relevant behaviour (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Although correlations between explicit attitudes and related behaviour are stronger, additional variance can often be attributable to implicit attitudes (e.g. Richetin, Perugini, Prestwich, & O’Gorman, 2007). This effect is particularly observed regarding socially sensitive issues (e.g. racial discrimination; Ziegert & Hanges, 2005).

Furthermore, Fazio (Motivation and Opportunity as Determinants of the Attitude model; MODE, 1990) describes multiple processes by which attitudes can affect judgments and behaviour. This model distinguishes two main attitude-to-behaviour processes; deliberate and automatic. Utilising the explicit-implicit dichotomy the model argues that where both are present, behaviour is deliberate, but where one is absent, behaviour is spontaneous. This model also notes that influence of attitudes on behaviour may sometimes involve combined processes of automatic and controlled components.

These suggested dichotomies (i.e. explicit-implicit, automatic-controlled, conscious-unconscious) are pertinent when considering the methodologies employed to measure attitudes (Bohner & Dickel, 2011). This is due to the variation of instruments’ ability to measure implicitly or explicitly held attitude constructs. For example, self-report measures may assess explicitly held,

conscious attitudes regarding an attitude object, whilst more sophisticated approaches may tap into implicit, potentially unconsciously held attitudes (e.g. Implicit Association Tasks, IAT; Greenwald, McGhee, & Schwartz, 1998). IATs assess the associative strength between a target concept and an attribute element within an individual. This approach argues that quicker responses are indicative of stronger concept pairing and reveal implicit attitudes. Such measures have increased in their popularity and application over recent years (Bohner & Dickel, 2011). However, research employing such approaches regarding attitudes towards offender populations remains limited (Malinen, Willis, & Johnston, 2014).

There are those who argue that displaying differing responses towards the same object when utilising explicit and implicit measures demonstrates simultaneously held attitude components (Devine, 1989). This is supported by some models (e.g. Dual Attitude Model, Wilson et al., 2000; MODE model, Fazio, 1990). However, such discrepancies could be indicative of explicit measures allowing for a degree of conscious control, demonstrating social desirability (Banse & Imhoff, 2013). Such issues relating to attitude measurement highlight the need to assess any instrument designed to assess attitudes towards offender populations as suggested by Harper et al. (2017). This should be in terms of its psychometric properties, validity, and reliability in addition to consideration of the construct it is purporting to measure.

Logically, the final step in this narrative is to consider the potential for changing attitudes of those responsible for the care and treatment of MDOs. This is guided by literature relating to attempts to change attitudes towards sexual offenders (review in Harper et al., 2017). The DoH acknowledges the importance of “changing attitudes to people with challenging behaviour” (p.21; DoH, 2012) to minimise the potential for future harm towards MDOs by those responsible for their care. In addition, the opportunity to improve individuals’ attitudes towards this population brings with it the potential to improve care, treatment, and rehabilitation prospects of MDOs, due to findings suggesting that attitudes inform behaviour (Bohner & Dickel, 2011).

The potential for such change to occur needs to be addressed initially. Theorists differ in their position regarding attitude stability (Bohner & Dickel, 2011). Some models endorse a stable-entity position (Fazio, 2007), others a constructionist

view (Schwarz, 2007), whereas some take a more intermediate position (Cunningham, Zelazo, Packer, & van Bavel, 2007).

Fazio (2007) proposes the view that attitudes are enduring, stored in long-term memory (Sherif & Cantril, 1947), retrieved when needed, and resistant to change. More recent research supports the view that attitudes are stored and automatically activated when in contact with the actual or symbolic presence of the attitude object (Bargh, Chaiken, Gollwitzer, & Pratto, 1992; Bargh, Chaiken, Raymond, & Hymes, 1996). However, the term "relatively enduring" (p.150) within Hogg and Vaughan's (2005) attitude definition highlights the potential for attitude change. Schwarz (2007) goes even further and proposes the theory that attitudes are formed when required. This model suggests attitudes are more temporary and informed by situational factors (Tourangeau & Rasinski, 1998).

Combining these two approaches, the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986), theorises that a stored evaluation of an object can be retrieved, and subsequently adjusted based upon current information. This demonstrates the importance of measurement approaches. The processing of such information can be biased by the strength of the existing attitude (Hovland, 1959), determining how much emphasis is placed upon existing accessible information. More recently, Petty and Brinol (2010) have attempted to explain the implicit-explicit differences by further developing the ELM (Petty & Cacioppo 1986) to focus instead upon measures' differential susceptibility to response biases. This again highlights the importance of valid measurement methods and consideration of potential biases. Bohnet and Dickel (2011) conclude that a combination of theories which take into account stable and situationally variable accounts of attitude construction may benefit future research.

When attempting to change attitudes it is important that we consider the key factors listed as playing a crucial role in attitude formation. These include knowledge (Ajzen, 2001; Wood, 2000) and exposure (Zajonc, 1968; review see Montoya, Horton, Vevea, Citkowitz, & Lauber, 2017). Interventions designed to increase knowledge through professional training (Hogue, 1995; Simon & Arnaut, 2011; in Harper et al., 2017) and social education programmes (Malinen et al., 2014) have been attempted with different offender populations such as sexual offenders (review Harper et al., 2017) and individuals with personality disorder



(Shanks, Pfohl, Blum, & Black, 2011). Subsequent examination of the potential to challenge attitudes held towards this population with the aim of reducing stigmatisation and punitive attitudes through training has also been explored (Harper, Hogue, & Bartels, 2016). These studies demonstrate a degree of success regarding the impact of training provision upon attitude change. However, no follow up examination of this change's impact upon subsequent behaviour or impact upon rehabilitation prospects has been employed. Length and intensity of training influences the degree of change observed regarding attitudes towards sexual offenders (Harper et al., 2017) and should therefore be considered when addressing attitude towards MDOs.

## **THESIS AIMS**

The aims of this thesis may be optimistic. It should be noted that research has demonstrated that attitudes towards offender populations in general are resistant to change (Batson et al., 1997), complex and broadly negative (Arnal, 2014). However, the points raised within this chapter and the potential promising results within the sexual offender literature demonstrate, and justify, such attempts (review in Harper et al., 2017).

Due to a lack of psychometrically robust instruments applied to attitudes towards MDOs (despite historical attempts; Kropp et al., 1989), a systematic review of psychometrics applied to attitudes towards prisoner populations is carried out, together with a critique of the most commonly used tool. A review of instruments focusing upon this area provides the basis for future development to more specific offender populations. This tool is then adapted to measure attitudes towards mentally disordered offenders and its psychometric properties explored and validated. Finally, this psychometric is applied to a clinical setting to explore its utility in examining the relationship between attitudes and behaviour toward mentally disordered offenders within forensic mental health settings.

The thesis aims to do the following:

- To systematically review instruments developed to assess attitudes towards prisoner populations.
- To critically evaluate the ATP in terms of its psychometric properties, clinical applicability and potential for adaptation.

- To adapt, validate, and explore the psychometric properties of a newly adapted instrument designed to measure attitudes towards MDOs; the Attitudes Towards Mentally Disordered Offenders scale.
- To behaviourally observe the criterion validity of the Attitudes Towards Mentally Disordered Offenders scale.

## **RATIONALE FOR CHAPTER TWO**

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Chapter one has introduced the importance of being able to accurately assess and monitor attitudes towards offender populations. Some of the approaches and methodologies utilised to measure attitudes as constructs, based upon theoretical underpinnings, have also been outlined. From a review of the literature, no instrument exists currently to measure attitudes towards MDOs specifically. In order to provide a picture of the current state of the literature in this area, chapter two will systematically review existing psychometric instruments that have been designed to measure explicit attitudes held towards prisoner populations. This area has received increased academic attention and may provide the basis for future development to more specific offender populations such as MDOs. To date, no such review has taken place. Importantly this review will also comment upon the varying degrees of study quality and robustness, which has previously not been examined.

## CHAPTER TWO

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### **A SYSTEMATIC REVIEW EXPLORING THE QUALITY AND EFFECTIVENESS OF TOOLS CURRENTLY UTILISED TO MEASURE ATTITUDES TOWARDS PRISONER POPULATIONS; EXPLORING RELIABILITY AND VALIDITY**

*Ashworth, S. & Tully, R. J. (2016, October). A systematic review exploring the quality and effectiveness of tools currently utilised to measure attitudes towards prisoner populations; exploring reliability and validity. Research in Forensic Mental Health Services Conference, London, UK.*

## **ABSTRACT**

### **BACKGROUND**

It has been suggested that attitudes towards offender populations can impact upon a range of factors associated with prisoner care, reform, and rehabilitation (Callahan, 2004; Kjelsberg, Skoglund, & Rustad, 2007; Clear, 2007). This study aims to systematically review the instruments developed and utilised to explore attitudes towards incarcerated offender populations in terms of their focus and psychometric properties.

### **METHODOLOGY**

Seven electronic databases and reference lists of relevant publications were searched. Inclusion criteria were applied to the identified publications. Included studies were quality assessed by two independent assessors using predefined quality assessment criteria prior to data extraction. Emphasis was placed upon measures of internal structure, reliability (internal consistency, test-retest and split-half) and validity (construct; convergent and divergent, and content).

### **RESULTS**

An electronic search yielded 534 hits. Of these, 483 were irrelevant, and 15 duplicate publications were excluded. Thirty two publications which did not meet the inclusion criteria were excluded. Following a hand search three publications were added. A total of seven publications were reviewed and three instruments were identified.

### **CONCLUSION**

The three instruments identified as exploring attitudes towards prisoner populations varied in terms of study quality and psychometric properties. There was evidence of one commonly used, relatively robust tool (ATP; Melvin, Gramling, & Gardener, 1985). Despite this, the lack of other reliable and valid instruments designed to assess this population as a whole is highlighted here, in addition to specific subpopulations thought to be most at risk. This has implications regarding our ability to accurately measure, monitor, and subsequently improve attitudes towards prisoner populations.

## **INTRODUCTION**

Following reformist change in the early 20<sup>th</sup> century regarding the previously punitive ideology within the criminal justice system (CJS), more rehabilitative ideas and attitudes regarding justice and offenders emerged (Harding, Hines, Ireland & Rawlings, 1985). However, the CJS can still experience tensions between two key roles of public protection and the rehabilitation of offenders (Gatotoh, Omulema, & Nassiuma, 2011).

One of the key aims of reformative justice is to rehabilitate, and so prevent reoffending behaviour (Priya, 2014). There has been increased policy interest in the idea of offender rehabilitation (Hirshfield & Piquero, 2010). It has been suggested that this rehabilitative approach can be influenced by the attitudes held by those involved with care in the CJS (Kjelsberg, Skoglund, & Rustad, 2007).

Although attitudes and behaviour are not synonymous (Hale, Householder & Greene, 2003), it is thought that at least the conative component of attitudes impacts upon behaviour (Fishbein & Ajzen, 2010). This attitude-to-behaviour relationship has been demonstrated through recent meta-analytic research (Kraus, 1995; Glasman & Albarracín, 2006). Therefore, in addition to academic value, the focus upon attitude exploration has potential clinical utility in considering the impact attitudes may have upon the rehabilitative approach within the CJS.

When the offender pathway is considered it is apparent that there are several involved organisations (Bradley, 2009). There are individuals whose attitudes may play a fundamental role when considering the potential treatment of an offender. These persons include Police Officers, Crown Prosecution Service staff, Prison Staff, Custody Officers, in-reach Rehabilitation Officers, Therapists, and, finally, members of the general population when considering reintegration into the community. Attitudes of significant stakeholders regarding offender treatment and rehabilitation must be taken into consideration across the pathway. In addition, factors which influence these must also be considered. This is supported by research suggesting attitudes of those in direct contact with the relevant object are most likely to influence behaviours (Glasman & Albarracín, 2006).

The effect of professionals' attitudes within custodial settings has been highlighted historically by Jurik (1985), who suggested prison employees who hold more positive attitudes towards prisoners can be more effective in ameliorating tension, strain, and confrontation within prison settings. More recently, it has also been suggested that an individual's attitudes towards certain offenders may influence interaction styles (Hogue, 1995), and decision making regarding risk and/or care (Callahan, 2004). Perhaps most importantly, attitudes towards prisoners may influence the development of therapeutic relationships (Roth & Fonagy, 1996). This has been suggested to be a key influential factor regarding facilitation of desistance from criminal or other harmful behaviour (Blow, Sprenkle, & Davis, 2007).

Reciprocally, Callahan (2004) states some potential consequences of negative attitudes towards offenders as "victimization, negligence, discounting claims or complaints, risk of self-injury, denial of rights such as recreation and group participation, and physical and social isolation." (p.39). She additionally writes that the attitudes of staff members and other inmates towards mentally ill inmates specifically are critical considering how likely an individual is to voluntarily seek mental health support if required.

At a more fundamental level, attitudes influence behaviour in a more drastic manner. In the United Kingdom (UK) there have been high profile cases in which attitudes towards a detained section of society has had a significantly detrimental effect upon their care and treatment, resulting in serious case reviews (e.g. Flynn & Citarella, 2012), national responses (e.g. DoH, 2012), and governmental reports (e.g. Bradley, 2009). Reports and media coverage detail how those responsible for the care and treatment of detainees voiced negative attitudes and demonstrated abusive behaviours. Such cases highlight how organisational cultures and individual attitudes towards detained populations can impact upon behaviour with unacceptable results.

Despite this, there is limited research focusing upon attitudes towards prisoner sub populations potentially at increased risk of such victimisation. Therefore, exploration of attitudes towards the general prisoner population which has received increased academic and political attention over recent years (Hirshfield & Piquero, 2010), may serve to inform future development of more specific scales

designed to measure attitudes towards such populations as offenders with mental disorders.

When discussing CJS professionals, Jurik (1985) found that organisational characteristics are equally influential in shaping the attitudes of staff members as their individual attributes. More recently, there has been support for this view that institutional factors (such as a focus upon offender rehabilitation) play a key role in engendering staff members' attitudes towards offender populations (Kifer, Hemmens, & Stohr, 2003).

Progressing along the offender pathway, it is thought that expressed positive attitudes of Prison Officers towards prisoners are critical to obtaining positive change post release (Glazer, 1969). More recently it has been shown that attitudes held by CJS professionals increase the efficacy of various correctional rehabilitation programmes, and support the successful reintegration of prisoners into the community upon release (Kjelsberg et al., 2007).

The Bradley Report (2009) highlights how "concerns around the profile of the prison population are no longer exclusively felt by professionals and pressure groups. There is increasing evidence to suggest that they are finding their way into mainstream public opinion" (p.8), emphasising how important it is to assess and monitor a wide range of individuals' attitudes, and behaviour, towards this societal group, including members of the public.

Studies have also demonstrated that negative attitudes held by members of the general public can impact negatively upon successful reintegration into the community post imprisonment (Clear, 2007; Pager, 2003), or treatment, specifically for sexual offenders (Willis, Levenson, & Ward, 2010).

For example, when an individual offender's progress to a community setting is considered, attitudes of employees, co-workers, and neighbours have the potential to impact upon experience. Those who maintain negative attitudes towards offenders are more likely to exclude these individuals from conventional social and economic activities in the community (Clear, 2007; Pager, 2003). Such stigmatization and subsequent 'informal exclusion' can not only negatively impact upon the reintegration of the individual (Chiricos, Kelle, Bales, & Bontrager, 2007), but also upon their families (Braman, 2007).



As has been highlighted, attitudes towards offenders are a “crucial variable” (Melvin et al., 1985; p.242) in the management, treatment, and rehabilitation of individuals who have committed a crime. They argue that, if we are able to assess and monitor attitudes of certain populations, there may be potential for us to increase the effectiveness of the attempts made by ensuring more positive attitudes are prevalent and pervasive.

Such reasoning demonstrates the importance of developing an instrument which accurately measures the attitudes of relevant professionals towards the prisoner populations they work with along the offender pathway. This is important in terms of developing the ability to accurately measure and monitor stakeholders’ attitudes. With the ultimate aim of maintaining safer environments within prison settings, developing more effectual rehabilitation programmes, reducing recidivism, and increasing successful community reintegration.

Despite increased interest in the rehabilitation of offenders (Hirshfield & Piquero, 2010) and the apparent role attitudes play in this process (Melvin et al., 1985) there is not a universally utilised instrument to measure attitudes towards such populations across the literatures exploring this area.

## **CURRENT REVIEW**

To justify the current review, a scoping exercise was undertaken to explore previous reviews aiming to answer a similar review question. The scoping exercise took place on 25<sup>th</sup> March 2015 using Cochrane Library, Campbell Library, MEDLINE and PsycINFO. The scoping exercise highlighted that there were no existing reviews regarding this topic.

It was apparent that research into this area has addressed such offender populations as current and ex-prisoners, offenders with specific types of offences (e.g. sex offences, violent offences), and offenders with mental disorders.

The current review was justified by the absence of any previous systematic review specifically exploring the presence and quality of instruments designed to measure attitudes towards prisoner populations. There is a need to be able to measure, validly and reliably, individuals’ attitudes towards prisoner populations. By being able to measure these attitudes, there will be potential for exploring how, if

necessary, these can be improved in order to minimise the risk of negative and potentially damaging milieus (Callahan, 2004).

The prisoner population is a heterogeneous group which can be divided into several (potentially overlapping) subgroups. These categories can be related to factors such as type of offence committed (e.g. violent, sexual, acquisitive), type of sentence received (e.g. determinate, indeterminate, life), demographic characteristics of the prisoner (e.g. gender, ethnicity, age) or current prisoner characteristics (e.g. mental disorder, learning disability, personality disorder, or mental illness diagnoses). For the purposes of this review, instruments designed to measure attitudes towards prisoner populations were reviewed. Information gained through a review of existing instruments could be utilised in the development of tools to address attitudes towards related populations.

## **AIMS AND OBJECTIVES**

The objective of the current systematic literature review was to synthesise the existing empirical literature in order to investigate the quality, reliability and validity of instruments designed to measure attitudes towards prisoner populations. This review therefore aims to address the following question: How effective are the tools currently utilised to measure attitudes towards prisoner populations; exploring study quality, reliability, and validity.

## **METHODOLOGY**

### **SEARCH STRATEGY: SOURCES OF LITERATURE**

The search strategy was designed to access published material through the following stages:

*Electronic bibliographic databases:* These databases were included due to their scope, which included professional and academic literature relating to the field of criminal justice and forensic and health services. They therefore had the potential to feature relevant articles relating to the review question. Articles indexed in the following databases were searched using the same search strategy and keywords:

- ASSIA
- Cochrane Library
- EMBASE

- Medline
- NCJRS
- PsycINFO
- Web of Science

*Hand searching:* The reference lists of the articles collected from those identified in stage one above were hand searched.

## **SEARCH STRATEGY: SEARCH TERMS**

Following a scoping exercise, and consultation with a search specialist regarding suitability, search terms were developed. The following is a guide to the search terms that were considered appropriate to apply to all databases (modification was necessary to meet the requirements of each database's specific field differences, see Appendices A and B):

*(measure OR tool OR questionnaire)*

AND

*(attitudes OR perceptions OR judgements)*

AND

*(offenders OR inmates OR prisoners)*

Where appropriate search terms included brackets to group together search terms whilst using Boolean terms of "AND" and "OR" (e.g. (measure\* OR tool\*) (attitude\* OR opinion\* AND offender\* OR prisoner\*)).

Appropriate truncation and wildcard symbols (\* or \$) were utilised depending on the database. These were included at the end of some terms to ensure additional relevant terms are also included (e.g. "\*prisoner\*" to include the term "prisoners").

## **GENERAL INCLUSION CRITERIA**

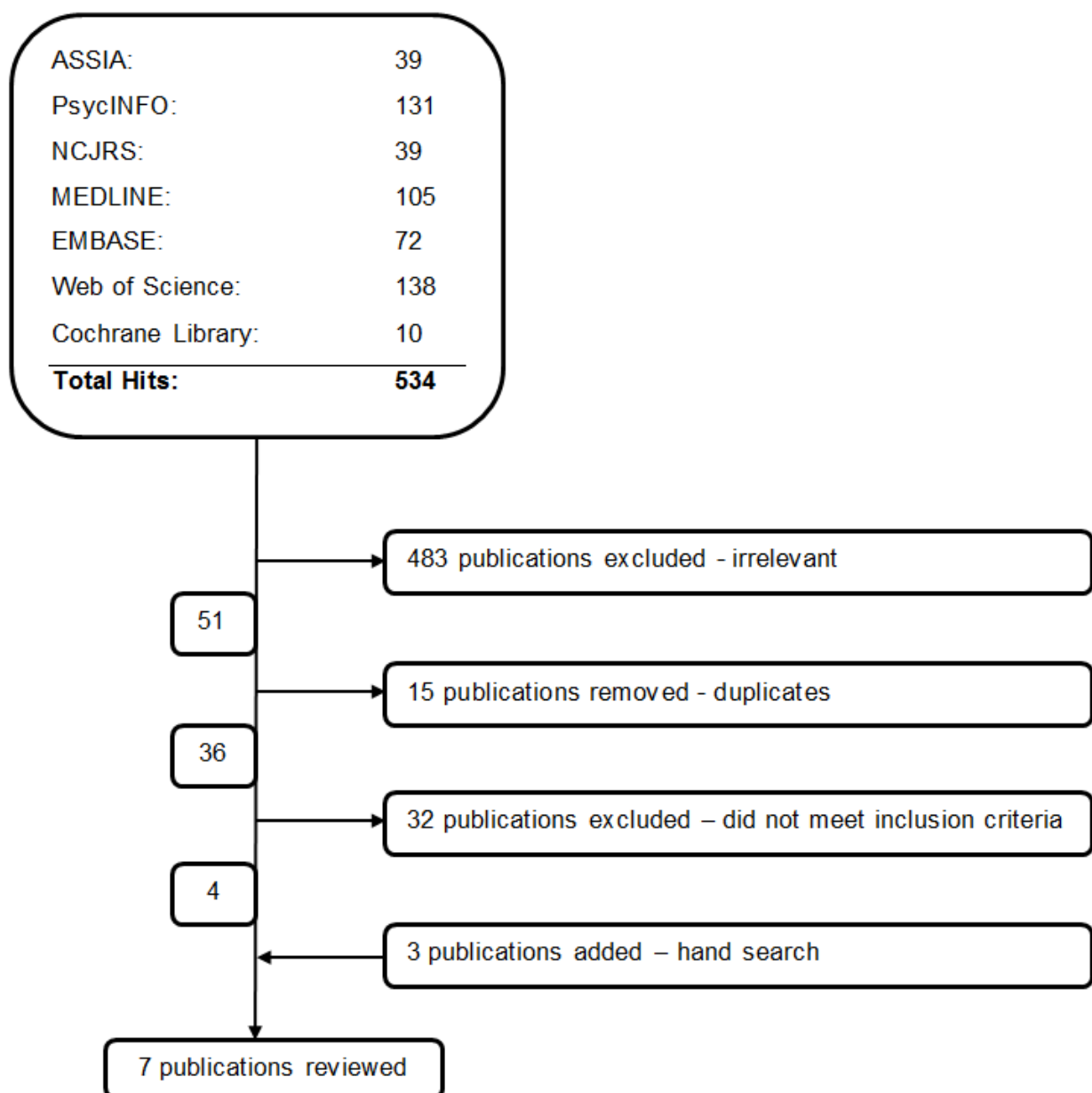
Inclusion and exclusion criteria were applied to the publications obtained through the searches (see Appendix C) using pre-defined inclusion and exclusion forms.

The population was considered appropriate due to the wide ranging nature of the topic regarding attitudes toward prisoner cohorts and those examined were not further limited to a specific sub-population.

Due to the lack of literature in this field, no time or language restrictions were imposed.

Duplicates were removed and sourcing of those not readily available was attempted through contacting the authors. See Figure 2.1 for search strategy.

Figure 2.1: Systematic Review Search Strategy



## **QUALITY ASSESSMENT**

Initially the publications were reviewed for the type of publication (RCT, cohort, or case control) but as all were classed similarly, the relevant Critical Appraisal Skills Programme (CASP, 2006) criteria were utilised, which had been adapted for this review (Appendix D). Scores were summed in order to obtain an overall quality rating, with higher scores indicating better quality publications.

Identified publications that met the inclusion and exclusion criteria were assessed for methodological quality by the author, with 100% of these blindly second rated by an independent second reviewer, qualified to Doctoral standard in a relevant discipline. Intra-class correlation coefficient (ICC) was measured between the two, to assess consistency of the assessment process, and found to be at .72 (single measure. This was considered to have acceptable limit based upon Fleiss's (1986) guidelines of ICC values.

Given the lack of literature in this area, publications were not excluded due to quality assessment, instead publication quality is commented upon.

## **PSYCHOMETRIC QUALITY ASPECTS**

The measures reported upon within the publications found from the search were assessed regarding their psychometric properties. The following criteria regarding reliability and validity were explored and relevant available data were reviewed and extracted if available.

*Reliability Criteria:* Reliability refers to the stability or consistency of scores over items, time, settings or raters (Clark-Carter, 2004). Reliability impacts upon the overall validity of a test (Davidshofer & Murphy, 2005). This is because if a scale is considered reliable we can be confident results demonstrate true differences rather than individual idiosyncrasies of time or raters (John & Benet-Martinez, 2000). There are various measures of reliability that can be considered including internal consistency, test re-test reliability and split-half reliability (Clark-Carter, 2004).

Publications were assessed as including a measure of reliability if a Cronbach's alpha statistic (regarding internal constancy), Pearson's correlation statistic (regarding test re-test reliability), and Spearman-Brown co-efficient (split-half

reliability) were appropriately calculated and reported. Ratings of .7 or higher were considered adequate, with .8 or .9 and higher considered good to excellent, respectively (Cronbach, 1951; Kline, 1986; Nunnally, 1978; Tavakol & Dennick, 2011).

*Validity Criteria:* Validity refers to the degree to which a tool measures what it claims to measure (Clark-Carter, 2004). Validity additionally demonstrates the degree to which theory and evidence support the interpretation of scores produced. There are various measures of validity which were considered including convergent validity and discriminant validity (Clark-Carter, 2004).

Publications were assessed as including a measure of validity if the degree of similarity was reported between the scores of the instrument being evaluated and those of another instrument designed to measure the same or a different, related, concept. Correlations of .7 or higher and .5 or below were considered adequate to evidence sufficient convergent and discriminant validity respectively (Kline, 1986; Nunnally, 1978).

## **DATA EXTRACTION**

Following assessment of methodological quality, data was extracted from the publications utilising a pre-defined data extraction form to retrieve and collate data (Appendix E). Comment is made upon categorisation based upon population groups of both attitude holders (e.g. general public, Police Officers) and target group (e.g. prisoner type), in addition to publication quality and psychometric property evaluation. Following this, publications were grouped by instrument utilised, whereby results and analyses are reported upon.

## **RESULTS**

### **DESCRIPTION OF STUDIES**

The full search yielded 534 publications. Four hundred and eighty three irrelevant publications were excluded and a further 15 duplicates removed. A further 32 publications were excluded due to inclusion exclusion criteria; 31 due to intervention and one due to publication type (Appendix F). Three non-duplicate relevant publications were included (Jurik, 1985; Kjelsberg et al., 2007; Chui &

Cheng, 2015) following a manual hand search from the reference lists of existing publications. The remaining seven publications were included for review.

## **CHARACTERISTICS OF INCLUDED STUDIES**

Within this review of seven studies, 2,449 participants were considered. There is no suggestion that samples may have overlapped.

Five countries produced the research: United Kingdom (UK; two studies), the United States of America (USA; two studies), Catalan Spain (one study), Hong Kong China (one study), and Norway (one study).

Populations where samples were extracted included professionals involved with the CJS (six studies), students (four studies), prisoners (two studies) and the general population (one study).

Appendix G further details the characteristics of the seven included studies.

## **QUALITY OF INCLUDED STUDIES**

The overall quality of each study was assessed and were relatively comparable, with scores ranging between 24 and 32 out of a maximum possible score of 36.

Due to the absence of a previous review in this area, limited exclusion criteria were placed upon the search strategies (e.g. no date restrictions, no language restrictions etc.) reducing bias upon results. However, this resulted in studies being included from over a 30 year span. It was noted that there was a general positive correlation between publication date and quality score. This may be indicative of the quality of published research increasing, increasingly stringent publication standards, or a higher association of the more recent publications with the quality assessment criteria developed for this review.

All studies applied the correct methodology and statistical analysis to report their clearly stated aims in addition to reporting all findings clearly.

All authors reported sample sizes, ranging from  $N=97$  (Garbutt & Casey, 2015) to  $N=868$  (Kjelsberg, et al., 2007), however publications varied in their clarity regarding the sample sizes utilised for different analyses. The importance of reviewing the statistical power of research was advocated by Cohen (1988). However, only one study reported an a priori power analysis (Garbutt & Casey,

2015) despite being recommended practice within current day research (American Psychological Association; APA, 2008).

Five of the reviewed studies (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Kjelsberg et al., 2007; Chui & Cheng, 2015; Jurik, 1985) reported information regarding response and/or attrition rate. However, Ortet-Fabregat et al. (1993) only report response rate for one of the sub-populations.

*Reliability Criteria:* Regarding the authors' use of reliability measures, six studies included Cronbach's alpha as a measure of internal consistency (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Garbutt & Casey, 2015; Kjelsberg et al., 2007; Chui & Cheng, 2015; Jurik, 1985). However, the breakdown of areas reported upon varied; some authors reported the internal consistency of individual factors identified (e.g. Chui & Cheng, 2015) and some divided this by populations examined (e.g. Kjelsberg et al., 2007).

Three studies reported test-retest reliability (Ortet-Fabregat et al., 1993; Melvin et al., 1985; Garbutt & Casey, 2015) all of which reported correlation coefficient scores above .7 (ranging from .79 to .92), and were therefore considered adequate (Kline, 1986; Nunnally, 1978). However, these findings may not be comparable due to the varying time interval between each testing used within each publication; four weeks (Ortet-Fabregat et al., 1993), two weeks (Melvin et al., 1985) and one week (Garbutt & Casey, 2015).

Only one study reported split-half reliability (Melvin et al., 1985) which was reported at .84 to .92, which again was considered adequate (Kline, 1986; Nunnally, 1978).

*Validity Criteria:* Regarding the authors' use of measures of construct validity, five studies included a measure of convergent validity (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Melvin et al., 1985; Garbutt & Casey, 2015; Kjelsberg et al., 2007) utilising a range of comparative instruments. The most commonly used instrument being the ATP (Melvin et al., 1985) either in its original form or adapted (e.g. using a 27-item version, Chui & Cheng, 2015).

Four studies included a measure of contrasted groups (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Melvin et al., 1985; Kjelsberg et al., 2007). The



majority of studies used populations consisting of either the general population, professionals involved with working with prisoner populations or student samples.

## **INSTRUMENTS**

Five studies explored attitudes towards prisoners in general (Ortet-Fabregat et al., 1993; Melvin et al., 1985; Kjelsberg et al., 2007; Chui & Cheng, 2015; Jurik, 1985) and two focused upon prisoners who self-harmed (Ireland & Quinn, 2007; Garbutt & Casey, 2015).

From this review, three instruments were identified as being used to explore attitudes towards prisoners which are commented upon below.

### **ATTITUDES TOWARDS PRISONERS (ATP; MELVIN ET AL., 1985)**

The ATP (Melvin et al., 1985) is a direct measure of explicit attitudes towards prisoners. It consists of 36 items regarding attitudes towards prisoners to which participants are asked to rate their degree of agreement. It uses a five point Likert type scale (Likert, 1932) with responses ranging from 'Disagree strongly' (1), 'Disagree', 'Undecided', 'Agree' and 'Agree strongly' (5). 19 items are reverse scored and a constant of 36 is taken from the total score, with higher scores representing more positive attitudes.

Within this review the ATP was used within four studies in its original form (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Melvin et al., 1985; Kjelsberg, et al., 2007) and one in an adapted form (using a 27-item version, Chui & Cheng, 2015).

Of the four studies utilising the original ATP, four publications (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Melvin et al., 1985; Kjelsberg, et al., 2007) completed a Principal Components Analysis (PCA). One study (Ireland & Quinn, 2007) details the use of varimax rotation and identified three factors. The three factors identified were: interpersonal qualities of prisoners and willingness to engage with them; treatment of prisoners and appreciation of their feelings; excusing the behaviour of offenders and looking towards their future. This approach was decided upon due to the ability of these factors being utilised in further analysis as dependent variables (Tabachnick & Fidell, 1996). However, Costello and Osborne (2005) argue that the true factor analysis method is preferable to components analysis, as they consider it a data reduction method.

Melvin et al. (1985) report the use of principal axis factoring whilst the remaining studies (Ortet-Fabregat et al., 1993; Kjelsberg, et al., 2007) report PCA followed by examination of the scree plot (Cattell, 1978) and eigenvalues in line with the Kaiser criterion (Kaiser, 1960). Despite being the most commonly used method in practice (Fabrigar, Wegener, MacCallum, & Strahan, 1999), this approach has been criticised for its arbitrary nature (Kaiser criterion; Fabrigar et al., 1999) and subjectivity (Scree test; Zwick & Velicer, 1986). Costello and Osborne (2005) argue that these are suboptimal approaches to take when analysing data and would recommend true factor analysis. All these studies report a uni-factorial structure (Table 2.1). However, none reports rotation of the factor model for analysis potentially leading to under-extraction.

Again, studies do not report parallel analysis (Horn, 1965), a recommended process when determining the number of factors to retain (Ledesma & Valero-Mora, 2007). This would simplify structure, reduce the analysis of noise and provide authors the opportunity to assess whether they have over factored the data. This procedure may have informed the decision regarding the number of factors to retain (Ledesma & Valero-Mora, 2007).

*Table 2.1: Principal Components Analysis of the Attitudes Toward Prisoners Scale*

	<b>Ireland &amp; Quinn (2007)</b>	<b>Ortet-Fabregat et al. (1993)</b>	<b>Melvin et al. (1985)</b>	<b>Kjelsberg, et al. (2007)</b>
<b>Factor <i>N</i></b>	3	1	1	1
<b>eigenvalue</b>	<i>I. Interpersonal qualities: 5.5</i> <i>II. Treatment and feelings: 3.49</i> <i>III. Excusing and future: 2.08</i>	3.78	16.02	9.09
<b>% Trace accounted for</b>	<i>I. Interpersonal qualities: 15.3</i> <i>II. Treatment and feelings: 9.7</i> <i>III. Excusing and future: 5.8</i> Total: 30.8	38.3	23	25.3

Chui & Cheng (2015) comment upon a previous publication within the literature (Chui & Cheng, in press) in which the ATP was subjected to a factor analysis from which 27 items were retained and four factors were identified. The four factors were: perceived bad character; negative perception of interaction; empathy; prisoners as normal.

In its adapted 27-item form, despite two factors (I and IV) reaching sufficient internal consistency (.87 and .74 respectively), two of the factors (II and III) were not adequate to assume internal consistency (both at .68) (Nunnally, 1978; Tavakol & Dennick, 2011). However authors argue a four factor structure better represents the Chinese dialectical way of thinking.

Three of the studies (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Kjelsberg et al., 2007; Table 2.2) report the internal consistency of the original ATP (Melvin et al., 1985). The Cronbach alphas reported are sufficient to satisfy recommendations to ensure high internal consistency across all studies (Nunnally, 1978; Tavakol & Dennick, 2011) suggesting a degree of consistency across differing population samples increasing the ability for the findings to be generalised.

Test-retest reliability was assessed within two publications (Table 2.2; Ortet-Fabregat et al., 1993; Melvin et al., 1985). Pearson correlation coefficients reported suggest sufficient temporal reliability (Kline, 1986; Nunnally, 1978; Tavakol & Dennick, 2011).

Convergent validity of the original ATP was assessed within four studies (Ireland & Quinn, 2007; Ortet-Fabregat et al., 1993; Melvin et al., 1985; Kjelsberg et al., 2007; Table 2.2) three of which utilised four different standardised comparator instruments. Kjelsberg et al. (2007) used a non-standardised questionnaire developed to assess attitudes towards reported beliefs about prisoners, crime, and punishment. Significant correlations were found between all theoretically related standardised comparator instruments and the ATP, supporting the instrument's convergent validity.

To assess the influence of socially desirable responding on the ATP, Melvin et al. (1985) demonstrated there was no significant relationship between the ATP responses and the Crowne-Marlowe Social Desirability Scale (Crowne & Marlowe, 1960; Table 2.2).

Table 2.2: Psychometric Properties of the Attitudes Toward Prisoners Scale

Study	Ireland & Quinn (2007)	Ortet-Fabregat, Perez & Lewis (1993)	Melvin, Gramling & Gardener (1985)	Kjelsberg, Hilding Skoglund & Rustad (2007)
<b>Internal Consistency (<i>a</i>)</b>	.81	Prison rehab teams .90 Defence attorneys .93 Students .95 Law enforce officers .94 Correctional officers .95		Prisoners .88 Prison employees .91 Students .93
<b>Test-retest (<i>r</i>)</b>		.92	.82	
<b>Split-half (<i>r</i>)</b>			Students .90 Correctional officers .84 Law enforce officers .92 Prisoners .88 CJS professionals .86	
<b>Convergent Validity (<i>r</i>)</b>	APSH .30**	WPAI -.44**	RDS -.3*	Prisoners Q1 -.03 Q2 -.22** Q3-.20** Q4 -.08 Q5 -.04 Q6 -.16** Q7 -.20** Q8 -.13 Q9 .11 Q10 .14 Q11 -.11

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Q12 -.06

Prison employees

Q1 .00

Q2 -.09

Q3-.07

Q4 -.17\*\*

Q5 .01

Q6 -.18\*\*

Q7 -.20\*\*

Q8 -.14\*\*

Q9 .19\*\*

Q10 -.08

Q11 -.25\*\*

Q12 -.55\*\*

Students

Q1 .15

Q2 -.02

Q3-.01

Q4 .00

Q5 .00

Q6 .04

Q7 -.09

Q8 -.10

Q9 .06

Q10 .20\*\*

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			Q11 -.04
			Q12 -.28**
<b>Contrasted groups (ANOVA)</b>	<i>Prison rehab teams</i>	<i>Reform/rehab teams</i>	<i>Inmates</i>
	<i>Defence attorneys</i>	<i>Prisoners</i>	<i>Prison employees</i>
	<i>Students</i>	<i>Students</i>	<i>Students</i>
	<i>Law enforce officers</i>	<i>General pop.</i>	<i>F(2,868)=60.3***</i>
	<i>Correctional officers</i>	<i>Correctional officers</i>	
	<i>F(4,392)=15.72**</i>	<i>Law enforce officers</i>	<i>Business economics students</i>
		<i>F(4,348)=57.99***</i>	<i>History students</i>
			<i>Nursing students</i>
			<i>F(2,183)=8.46***</i>
<b>Other (r)</b>		<i>Marlow-Crowne Social Desirability Scale</i>	
		<i>-.02</i>	

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\* $p < .05$ ; \*\* $p < .01$ , \*\*\* $p < .001$

## **ATTITUDES TOWARDS PRISONERS WHO SELF HARM (APSH; IRELAND & QUINN, 2007)**

The APSH (Ireland & Quinn, 2007) is a direct measure of explicit attitudes towards prisoners who self-harm. It consists of 25 items describing commonly reported responses and misconceptions about individuals who engage in self-harm, found within the literature, upon which participants are asked to rate their level of agreement. It uses a five point Likert type scale (Likert, 1932) with responses ranging from 'Disagree strongly' (1), 'Disagree', 'Undecided', 'Agree' and 'Agree strongly' (5). Fourteen items are reverse scored and items are summed with higher scores representing more positive attitudes.

Within this review the ASPH was used within two publications; initially describing the development (Ireland & Quinn, 2007) and then evaluation (Garbutt & Casey, 2015). Both publications used samples taken from prison employees with prisoner contact, however neither reported power analysis.

Following a principal component varimax rotation, within the Ireland and Quinn (2007) paper, four factors were identified after reviewing both the eigenvalues (Kaiser, 1960) and scree plot (Cattell, 1978), explaining 42.8% of the variance. In addition to this being most commonly used approach within practice (Fabrigar et al., 1999), the authors attribute the decision to use this method to a wish to utilise these factors in further analysis as dependent variables (Tabachnick & Fidell, 1996). As outlined earlier, these approaches have been criticised for their arbitrary nature (Kaiser criterion; Fabrigar et al., 1999) and subjectivity (Scree test; Zwick & Velicer, 1986).

PCA has also been argued to be a data reduction method rather than a method of true factor analysis (Costello & Osborne, 2005). Again, neither study reports a parallel analysis (Horn, 1965), a recommended process when determining the number of factors to retain (Ledesma & Valero-Mora, 2007).

Overall internal consistency was reported within both studies for total and subscale scores (Table 2.3). A degree of similarity was found between both publications; internal consistency was found to be sufficient for two of the four factors (I and III) across both studies, whereas the remaining two factors (II and IV) were all reported below the criterion of .7. However, across both papers the total APSH

internal consistency was sufficient to satisfy recommendations to ensure internal consistency (Tavakol & Dennick, 2011; Nunnally, 1978).

*Table 2.3: Internal Consistency of Attitude Towards Prisoners who Self Harm Scale Total and Sub Factors*

<b>APSH Factors</b>	<b>Internal consistency (Cronbach alpha)</b>	
	Ireland & Quinn (2007)	Garbutt & Casey (2015)
<i>I. Attitudes endorsing harsh treatment</i>	.75	.76
<i>II. Attitudes reflecting understanding</i>	.62	.40
<i>III. Attitudes endorsing negative myths</i>	.71	.71
<i>IV. Relating self-harm to suicide</i>	.58	.28
APSH Total	.74	.72

Test-retest reliability correlation coefficient was reported at .79 following a one week interval (Garbutt & Casey, 2015), suggesting sufficient temporal reliability (Kline, 1986; Nunnally, 1978). However, this was not assessed in the Ireland & Quinn (2007) publication.

Convergent validity was assessed within both publications utilising two different comparator scales; the ATP (Melvin et al., 1985) within the Ireland and Quinn (2007) paper, and the Self-Harm Antipathy Scale (SHAS; Patterson, Whittington, & Bogg, 2007) within the Garbutt and Casey (2015) paper. Both reported significant correlation coefficients between the instruments within the hypothesised directions at  $r=.30$  ( $p=.008$ ) (Ireland & Quinn, 2007) and  $r=-.79$  ( $p=.001$ ) (Garbutt & Casey, 2015) demonstrating sufficient degrees of convergent validity with theoretically associated instruments (John & Benet-Martinez, 2000).

However, the authors of one paper (Garbutt & Casey, 2015) highlight the high correlation between the two instruments (APSH and SHAS), suggesting that this may reflect a degree of redundancy between the two (John & Benet-Martinez, 2000).

### **ATTITUDES TOWARD INMATES (ATI; JURIK, 1985)**

The ATI (Jurik, 1985) is a direct measure of explicit attitudes towards inmates. It contains three items detailing statements regarding attitudes towards inmates. Respondents are asked to rate their degree of agreement. It uses a five point



Likert type scale (Likert, 1932) with responses ranging from 'Agree strongly' (5), 'Agree', 'Undecided', 'Disagree', and 'Disagree strongly' (1). Responses are then summed and higher scores indicate more positive attitudes towards inmates.

Within this review the ATI was used within one study (Jurik, 1985) in which it was developed. The items were drawn from previous literature (Jacobs & Kraft, 1978; Crouch & Alpert, 1982) regarding scales previously developed to measure punitiveness and aggressiveness towards inmate. The index was created according to procedures outlined by Babbie (1973).

There was no reported measure of overall internal consistency as measured by Cronbach's alpha. However, item to item correlations were reported to be between .77 and .83. Despite being reported at an acceptable level, no detail is provided regarding the item allocation of each correlation. The item-to-total correlations were reported to be between .38 and .55 but the authors do not go on to report how the scale would be modified if an item were to be removed.

Despite utilising a relevant sample of Correctional Officers, this does limit the ability to generalise findings to the general population. However it does go further than previous studies to include more varied demographic characteristics in light of changes to prison workforces. There was no further exploration of the instrument's psychometric properties therefore no comment can be made upon the scale's temporal reliability, overall validity or any exploration of socially desirable responding.

## **DISCUSSION**

The aim of this review was to assess what tools are developed to measure attitudes towards prisoner populations, and to document how effective they are in terms of validity and reliability. It aimed to synthesise the existing empirical literature in order to comment upon quality and investigate the effectiveness of tools designed to measure attitudes towards prisoner populations. Comment will be made here upon the instruments identified, methodologies and analyses employed to assess psychometric properties, limitations of this review and conclusions drawn.

Upon examining the results of the review, of the three instruments identified, the ATP (Melvin et al., 1985) was the most commonly used tool to measure attitudes

towards prisoners. It has good psychometric properties including internal consistency, reliability (both split-half and test-retest), convergent validity across a range of tools, and content validity across a range of populations. The majority of publications support a uni-factorial structure. However, varying analytical methodologies and adaptations made to the ATP may limit researchers' ability to synthesise and compare these findings.

The two other instruments highlighted by this review (APSH, Ireland & Quinn, 2007; ATI, Jurik, 1985), despite initially demonstrating relatively good and acceptable psychometric properties respectively, do not have the degree of evaluation, exploration, and academic attention reserved by the ATP (Melvin et al., 1985). These instruments have therefore have experienced less empirical scrutiny. The ATI (Jurik, 1985) specifically has limited face validity, containing only three items, and has been subject to limited analysis regarding its psychometric properties.

All tools reviewed utilised similar approaches in terms of instrument design, direct measures of explicit attitudes utilising Likert type scales (Likert, 1932) in which individuals rated their degree of agreement with a collection of statements. Whilst this is the most common direct method to assess explicit attitudes (Clark-Carter, 2004) it is an approach open to effects of social desirability and impression management (Whitley, 2010). However, only one paper reported any exploration of impression management (Melvin et al., 1985). They reported no evidence of a social desirability effect affecting the scale's reliability. The fact that the majority of reviewed publications lack such exploration of this potentially confounding variable limits the instruments' reliability (Whitley, 2010).

The reviewed publications differed in their employed methodology, demonstration and reporting of the psychometric qualities needed to accurately assess the instrument being evaluated, leading to issues when attempting to compare findings across publications. This included issues regarding sampling, reliability measures, validity measures and analysis of internal structure.

Despite the majority of publications reporting response rates, only one publication (Jurik, 1985) made comment upon the potential reasoning for the reported response rate (disparity between response rates for different officer shift patterns). Additionally, no authors comment upon the potential impact response

rates may have upon results. With reported response rates varying from 100% (Ireland & Quinn, 2007) to 47% (lawyers in Ortet-Fabregat et al., 1993) there may have been value in exploring potential reasoning and commenting upon the potential confounding impact such self-selecting sampling methods may have had upon results.

Additionally, the quality criterion for test-retest reliability was difficult to determine due to the varying time point intervals between tests across publications. The literature does not prescribe a specific temporal interval between testing points, but there is guidance stating no significant events or life experiences should occur within the intervening period (such as training or treatment likely to influence scores; Marx, Menezes, Horovitz, Jones, & Warren, 2003). Additionally, the time should be sufficient to ensure carryover effects are extinguished (Kaplan & Saccuzzo, 2013). However, the majority of the papers reviewed here do not control for these potentially confounding variables with the exception of one publication (Ireland & Quinn, 2007). They reported exploration of whether respondents had experienced a significant related event within the intervening time which may have influenced responses (Marx et al., 2003).

Regarding internal consistency, Nunnally and Bernstein (1994) argue a Cronbach alpha of higher than .9 may indicate item redundancy. From a review of the data, two publications (Ortet-Fabregat & Perez, 1993; Kjelsberg et al., 2007) report internal consistencies which exceed this level either across all or regarding certain samples, regarding the ATP suggesting the instrument may benefit from further analysis, as suggested by Chui and Cheng (2015).

Publications used different criteria regarding factor analysis of the instrument explored. This led the evaluation of different factor structures to be complex and incomparable. The majority of studies which detail analysis of factors report PCA without rotation, utilising the Kaiser criterion (Kaiser, 1960) and Scree test (Cattell, 1978), to determine factors, and do not complete a parallel analysis (Horn, 1965). These can be argued as outdated approaches to such analysis due to issues such as an arbitrary nature, subjectivity, potential for over extraction, variability and lack of sensitivity (Ledesma & Valero-Mora, 2007).

No studies reported a measure of discriminate validity; therefore, it can be argued that the construct validity of the tools cannot be wholly established. This is

because parallel convergent validity is not sufficient to demonstrate construct validity without a measure of discriminant validity (Western & Rosenthal, 2003).

It has been acknowledged that culture can play a role in shaping attitudes, including those towards offenders (Chui & Cheng, 2015). Therefore the variety of sampled countries within the reviewed studies should be acknowledged. The five countries which produced the research (UK, USA, Catalan Spain, Hong Kong China, and Norway) can be considered culturally diverse, not least in terms of their political and religious philosophies as highlighted by Chui and Cheng (2015). This may have resulted in findings being representative of cultural differences rather than psychometric properties when attempting to compare findings across studies.

In addition, the potential impact translation may have upon psychometrics' validity has been highlighted within the literature (Hambleton, Merenda, & Spielberger, 2005). This may have affected the validity of the translated version of the ATP utilised within three publications (Chui & Cheng, 2015; Ortet-Fabregat & Perez, 1993; Kjelsberg et al., 2007) where the original scale was translated into Chinese, Catalan and Norwegian respectively. The versions utilised within these studies may be considered not comparable to the original causing issues when attempting to synthesise results across studies.

Additionally, the scope of instruments designed to measure attitudes towards prisoner subpopulations is limited to prisoners who self-harm (Ireland & Quinn, 2009). Attitudes towards prisoner subpopulations worthy of exploration could include those thought to be most vulnerable to the effects of negative attitudes; such as those with mental illness, personality disorder and learning disability (Bradley, 2009).

The clinical implications for this lack of focus upon potential vulnerable subpopulations lie in professionals' inability to measure and potentially improve attitudes towards such populations. If tailored approaches to increase more positive attitudes towards prisoner populations could be developed and targeted within relevant professional groups across the offender pathway this could provide potential opportunity to increase successful rehabilitation prospects and reintegration into the community post release. This is an aim of the modern rehabilitative approach of the CJS (Harding et al., 1985).

Despite the apparent presence of one, relatively good quality, reliable and valid instrument, professionals' current inability to monitor and manage potentially damaging negative attitudes towards incarcerated populations, specifically those considered most vulnerable, may increase the risk for unacceptable individual and organisational cultures of abuse to continue within our CJS. If future abuse of incarcerated populations is to be avoided, attitudes of those responsible for the care and rehabilitation of prisoners need to be assessed and addressed.

## **LIMITATIONS AND FUTURE RESEARCH**

Despite being the first systematic review of tools currently used to assess attitudes towards prisoner populations, this review does have its limitations which should be acknowledged.

This review only included published studies, leaving the review open to publication bias. Positively however, due to this, all publications included had been peer reviewed.

Following the initial search, many papers had to be excluded due to the lack of specificity regarding the utilised instruments' population focus. Specifically, several publications developed and reported on instruments exploring attitudes towards sex offenders, without clearly stating if the population could also be categorised as prisoners. Due to the PI/ECO of this review (Appendix C), these publications were excluded; however, the literature is heavily weighted towards the exploration of attitudes towards sexual offenders (e.g. Church, Wakeman, Miller, Clements, & Sun, 2008; Burchfield, 2012; Harper & Hogue, 2015).

Regarding the search strategy, the number of articles added following hand search of references was almost equal to the number retained following systematic search. This calls into questions the suitability of the initial search terms used or potentially the databases searched. However, upon review of the literature this may be due to studies focusing upon another topic, rather than the psychometric development and validation acting as the primary focus (e.g. individual and organisational determinants of attitudes; Jurik, 1985).

The ability of this review to synthesise information regarding the instruments' psychometric properties is limited due to the varying methodological and analytical approaches taken in the reported publications. Therefore this review

attempts to synthesise findings and draw conclusions but this limitation must be considered when attempting to generalise findings.

## **CONCLUSIONS AND RECOMMENDATIONS**

It has been suggested that attitudes towards prisoner populations can impact upon a range of factors associated with prisoner care, reform, and rehabilitation. However, despite the development of one relatively widely used, reliable and valid tool (ATP; Melvin et al., 1985), there is a lack of reliable and valid instruments designed to assess this population as a whole. This has implications regarding the ability to accurately measure, monitor, and subsequently improve attitudes towards prisoner populations.

Specifically within the United Kingdom (UK) the Bradley Report (Bradley, 2009) was commissioned to address the current issues faced by those with mental health problems and/or learning disabilities within the CJS. It highlighted the key role played by “attitudes and perceptions of prison and hospital staff towards mental illness and offenders” (p.105). More recently, the UK DoH (2012) called for reform which emphasises the need for constructive attitudes and cultures towards those for whom we are responsible.

This review has highlighted the limited amount of high quality research systematically developing and exploring instruments to assess attitudes towards prisoner populations. This is despite increased political and media interest regarding the issue of attitudes and behaviour of individuals towards potentially vulnerable populations, either due to the nature of their incarceration or additional risk factors associated with it. This is an issue faced worldwide and attention regarding the treatment of these individuals within secure services has increased and should be fuelling research into the development of reliable and valid instruments designed to measure attitudes towards offender populations.

## **RATIONALE FOR CHAPTER THREE**

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Chapter two identified three published and validated instruments which measure attitudes towards prisoner populations. Chapter three examines the Attitudes Toward Prisoners Scale (ATP; Melvin, Gramling, & Gardener, 1985) which was highlighted within chapter two as the most commonly used, empirically scrutinised scale. The psychometric properties of the ATP are critiqued, and its clinical applicability is considered in more detail. This is with the aim of informing and evaluating its potential for future adaptation to other populations such as mentally disordered offenders, a population highlighted as potentially vulnerable in chapter one.

## **CHAPTER THREE**

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### **ATTITUDES TOWARD PRISONERS SCALE: A PSYCHOMETRIC REVIEW**



## **ABSTRACT**

### **BACKGROUND**

This review examines the Attitudes Toward Prisoners Scale (ATP; Melvin, Gramling, & Gardener, 1985) in terms of its psychometric properties, clinical applications and academic utility within the area of assessing attitudes towards prisoner populations.

### **METHODOLOGY**

Definitions of attitudes are explored to establish context, followed by a review of pertinent theories detailing hypothesised attitude construction. In light of these theories, methodologies employed to explore attitudes are discussed, leading to a detailed review of the ATP (Melvin et al., 1985). The tool's ability to measure attitudes towards prisoner populations including issues relating to validity, reliability, response distortion and clinical application are also explored.

### **RESULTS**

The ATP is relatively robust in terms of psychometric properties explored. However, future adaptations of the instrument may benefit specifically from: examination of internal structure utilising appropriate statistical approaches including PCA and factor analysis, further assessment of internal validity of the overall scale and sub factor scores, exploration of impression management utilising well validated contemporary measures, advanced investigation of temporal reliability and construct validity with appropriately powered representative samples, and finally application within relevant fields to assess the instrument's clinical utility.

### **CONCLUSION**

Caution must be taken when interpreting findings in light of issues related to statistical power, representativeness of samples, translation of instruments and the potential impact of cultural differences upon attitudes formation. All of these factors may impact upon the ability to compare and generalise findings. Further developments may provide a more accurate method of assessing attitudes towards prisoner populations, allowing for more accurate generalisation of and reliance upon conclusions drawn resulting from future research utilising the ATP.

## **INTRODUCTION**

This review examines the Attitudes Toward Prisoners Scale (ATP; Melvin, Gramling, & Gardener, 1985, Appendix H). This critique explores the ATP's psychometric properties, clinical applications and academic utility for assessing attitudes towards prisoner populations. Firstly, definitions of attitudes are explored to establish context. This is followed by a review of pertinent theories detailing hypothesised attitude construction. In light of these theories, methodologies employed to explore attitudes are discussed, leading to a detailed review of the ATP (Melvin et al., 1985). This critique explores the tool's ability to measure attitudes towards prisoner populations including issues relating to validity, reliability, response distortion and clinical application.

The term 'attitude' has many definitions within the literature (Arnal, 2014). Eagly and Chaiken (1993) describe an attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p.1). This can be considered a useful explanation, as reviews suggest most definitions contain a degree of evaluative judgement about an object (Haddock & Maio 2012).

Researchers have argued the indispensable nature of attitudes regarding contemporary social psychology (Allport, 1935; Schwarz & Bohner, 2001). However, attitudes are essentially a hypothetical construct (Schwarz & Bohner, 2001). They cannot be observed directly and much difficulty is encountered when attempting to measure them (Cross, 2005). Therefore it is important that researchers evaluate instruments developed to measure such complex, hypothetical constructs.

When evaluating an attitude scale, it is beneficial to consider various models proposed to explain attitude constructs. Theory can influence methodologies employed to measure attitudes. A proportion of instruments measure explicitly held cognitive components of attitudes. These are the most accessible components, based upon multicomponent models (e.g. Rosenberg & Hovland, 1960; Jain, 2014). However, it should be acknowledged there are other theory guided methodologies. For example, more complex methodologies such as Implicit Association Tasks (IAT; Greenwald, McGhee, & Schwartz, 1998) are influenced by the conscious/unconscious dichotomy (Motivation and opportunity as

determinants of the attitude model; Fazio, 1990). However, in line with the consistency principle it is assumed that by measuring the cognitive component of an attitude, researchers are able to gain insight into the attitude construct as a whole (Tripartite model; Rosenberg & Hovland, 1960).

### **TOOL OVERVIEW AND CHARACTERISTICS**

The ATP (Melvin et al., 1985) is a direct measure of explicit attitudes. It is completed by an individual in order to assess his or her attitudes towards prisoner populations. It consists of 36 statements regarding attitudes towards prisoners to which respondents are asked to rate their degree of agreement. It uses a five point Likert type scale (Likert, 1932) with responses ranging from 'Disagree strongly', 'Disagree', 'Undecided', 'Agree' and 'Agree strongly'. Items include "Most prisoners can be rehabilitated" (Item 32) and "Prisoners respect only brute force" (Item 35).

Research suggests an individual's attitude towards an object can be measured if a representation of attitude object is presented, without requiring direct exposure (Bargh, Chaiken, Govender, & Pratto, 1992). This supports the application of attitude focused psychometric tools such as the ATP.

Although the ATP utilises the most popular scaling technique when measuring attitudes, the Likert Scale (Clark-Carter, 2004), this method attracts several criticisms. The scale provided assumes the attitude being measured is on a single dimension (Clark-Carter, 2004) as authors report a single factor scale structure (Melvin et al., 1985). However, there are issues with this interpretation raised by subsequent analysis of the ATP's internal structure which will be explored in more detail later.

Likert scales produce ordinal data as the distance between the response intervals are arbitrary. However, respondents can mistakenly consider the scale as a ratio; assuming equal distance between response intervals. This potentially introduces a degree of artificiality to the responses, which may bias the results of the administration. This could lead to incomparability between assessments.

Finally, these measures generally assess explicit attitudes, argued by some theorists to be held consciously (MODE; Fazio, 1990). Therefore they are open to effects of social desirability and impression management (Whitley, 2010). These

can be conscious or unconscious tendencies which can influence the validity of responding, which will be discussed later in more detail.

## **INTERNAL STRUCTURE**

The ATP was originally developed utilising a process of item generation and selection (Melvin et al., 1985). An initial pool of 73 items was created. These were derived from a combination of adaptations of previous items used in attitude scales and statements overheard within prison practice by the second author as reported within the publication. This development, based upon previous clinical experience, introduces a degree of subjectivity into the item generation stage.

Within the Melvin et al. (1985) paper, the initial 73 item scale was administered to a relatively small sample of 93 participants (50 undergraduate students and 43 members of the general population) utilising an opportunity sampling technique. This potentially biases the sample towards like-minded individuals due to methodologies employed. This sampling technique can be argued to limit the degree to which the results can be generalised to other relevant populations such as CJS professionals, due to the unrepresentative nature of the sample. Furthermore, no attrition rates are reported which would offer an opportunity to assess potential bias within the samples.

Melvin et al. (1985) detail principal axis factoring followed by examination of the scree plot (Cattell, 1978) and eigenvalues in line with the Kaiser criterion (Kaiser; 1960). Whilst this is the most commonly used method in practice (Fabrigar et. al, 1999), the Scree test (Cattell, 1978) has been criticised for its subjectivity (Zwick & Velicer, 1986), and this approach in general has been termed a suboptimal approach (Costello & Osborne, 2005).

One substantive general factor was obtained, accounting for 23% of the trace with an eigenvalue of 16.62. Items with a correlation of .47 or higher were selected and included in the final version of the ATP; a total of 36 items. This is in line with the literature (Comrey, 1973); regarding fair factor loadings of  $>.40$  as significant, demonstrating robust analysis when considering this method. However, the lack of reported rotation of the factor model may have led Melvin et al. (1985) to under-extract. This is associated with issues such as loss of relevant information and distortion of the solution (Ledesma & Valero-Mora, 2007).

Melvin et al. (1985) do not report a parallel analysis (Horn, 1965). This is a recommended process when determining factor extraction in an attempt to reduce the chance issues relating to over- or under-extracting (Ledesma & Valero-Mora, 2007; Zwick & Velicer, 1986).

Utilising an online Parallel Analysis Engine (Vivek, Singh, Mishra & Donovan, 2007) data was entered regarding the initial pool of 73 items with the sample utilised within the Melvin et al. (1985) paper ( $N=93$ ). However, as the raw data from the original analysis was unavailable, direct comparison with the parallel analysis output was not possible.

Similar factorial structures have been reported in subsequent studies exploring the psychometric properties of this tool, suggesting an internal structure consistent with that identified in the original paper (Ortet-Fabregat et al., 1993; Kjelsberg et al., 2007). The results of a principal components analysis (PCA) support the claim that the ATP explores one basic construct (Ortet-Fabregat et al., 1993; Kjelsberg et al., 2007) as purported by the original authors.

However, Kjelsberg et al. (2007) suggested the potential to reduce the number of items without losing associated psychometric properties, creating a more accessible scale. However, the analyses within these studies are vulnerable to the same statistical criticisms as the original paper (Melvin et al., 1985) regarding potential under- or over-extraction resulting from use of suboptimal approaches (Costello & Osborne, 2005).

When developing the Chinese version of the ATP (ATP-C, Chui & Cheng, in press), the authors proposed four underlying factors rather than the unidimensional factor structure in the original study (Melvin et al., 1985). Chui and Cheng (2015) replicated these factors demonstrating alphas ranging from .87 to .68. These factors demonstrated varied levels of internal reliability regarding statistical recommendations (Kline, 1986; Nunnally, 1978). Additionally, the authors removed nine items, maintaining the psychometric properties of the tool whilst reducing the number of items to 27.

When attempting to compare findings relating to a single instrument across studies the variety of sampled countries should be acknowledged. Key countries which have produced research into the psychometric properties of the ATP include

the UK, USA, Catalan Spain, Hong Kong China, and Norway. Chui & Cheng (2015) acknowledge that culture can be influential in attitude development and construction. These countries can be considered culturally diverse, therefore consideration of the political and religious philosophies should be taken when attempting to draw conclusions across studies. Therefore, the differences regarding internal structure may be reflective of cultural differences and may not be applicable to another culture's research.

The importance of reviewing the statistical power of research is advocated by Cohen (1988). However, no a priori or post hoc power analyses are reported throughout the paper regarding the methodology used when developing the ATP (Melvin et al., 1985). Despite this being recommended practice within current day research (American Psychological Association; APA, 2008), this may not be justifiable criticism of research completed prior to this recommendation (e.g. Melvin et al., 1985).

Regarding factor analysis, most social science scale validation studies use a generic guideline stating five to 10 respondents per item (Waqas et al., 2015). Regarding the 73 initial items, this would create an optimal sample size between 365 and 730. However, a sample size of 1,000 is considered 'excellent' (Comrey & Lee, 1992), rendering the Melvin et al. (1985) initial sample of 93 as below 'poor'.

Utilising either Waqas et al. (2015) or Comrey and Lee (1992) guidelines, the sample sizes reported within the Chui and Cheng (2015) ( $N=157$ ) and Melvin et al. (1985) ( $N=93$ ) studies to explore internal structure of the scale are insufficient to draw firm conclusions. Even the largest subsamples sizes reported in Ortet-Fabregar et al. (1993) (students  $n=191$ ) and Kjelsberg et al. (2007) (prison employees  $n=387$ ,) studies reach 'fair' and 'good' respectively according to Comrey and Lee's (1992) guidance. The majority of subsamples analysed would be considered 'fair' or below (Ortet-Fabregat et al. 1993; Kjelsberg et al., 2007).

If Kjelsberg et al. (2007) had combined results from all subsamples to analyse the internal structure of the ATP they would have reached sufficient power to draw firm conclusions, reaching a sample size of  $N=868$ . This would have satisfied Comrey and Lee's recommendations to obtain sample sizes of over 500 when completing factor analysis (in MacCallum, Widaman, Zhang & Hong, 1999).

However, Hogarty, Hines, Kromrey, Ferron, and Mumford (2005) argue that the disparate recommendations regarding sample sizes within the literature are unhelpful. Melvin et al. (1985) recognise and note the sample size limitation regarding the statistical power of their analyses (p.253). Nevertheless, they argue that supplementary analyses regarding reliability and validity are sufficient to draw conclusions regarding the success concerning the initial construction of the scale. These analyses are discussed later in more detail.

In addition to critique regarding sample sizes, the representative nature of the samples utilised to explore the ATP's internal structure can be called into question, subsequently impacting upon the ability to generalise findings to other populations.

Chiu and Cheng's (2015) sample size was relatively non-representative comprising solely of college students; limiting the degree to which the results can be generalised to other populations of interest such as CJS professionals. Regarding the Melvin et al. (1985) paper, not only can the sampling methodology employed be criticised, but the representative nature of the populations sampled can also be questioned. Utilising samples taken from undergraduate students and the general population limits the authors' ability to draw conclusions regarding other populations.

However, Ortet-Fabregat et al. (1993) and Kjelsberg et al. (2007) utilised samples obtained from individuals involved in the CJS in addition to student populations. This strengthens the authors' ability to generalise findings to relevant populations.

In conclusion, much of the research conducted regarding the internal structure of the ATP is methodologically limited. This inhibits the ability to draw firm conclusions. These include insufficient statistical power, use of inappropriate analytic approaches, or use of samples taken from unrepresentative populations. Therefore more research is needed into the internal structure of the ATP utilising larger, more representative samples and more contemporary approaches.

## **ADMINISTRATION AND SCORING**

The ATP is designed as a self-report tool in which the individual responds to each item (Melvin et al., 1985). However, the tool can be administered by an assessor, verbally stating each item, asking and recording the response. Whilst ensuring the

identity legitimacy of the respondent, assessor presence could influence the responses provided due to potential observer-expectancy or interviewer bias (Rosenthal, 1966) or increased social desirability effects (Crowne & Marlowe, 1964). Melvin et al. (1985) embedded attempts to reduce these potential biases, such as reverse scored items. These are discussed later in more detail.

Irrespective of the administration method, the scale is relatively short in length (36 items). This has positive implications for clinical application, as shorter tools have been found to increase the likelihood of completion (Galesic & Bosnjak, 2009), increasing sample sizes and subsequently the statistical power and the degree to which the result can be generalised.

Following administration, the scoring of the ATP is relatively simple and, although no manual is available, some limited guidance is provided within the original paper (Melvin et al., 1985). After reversal of 19 of the 36 items, each item receives a score from one to five, with one representing the most negative, and five the most positive attitude. These are then summed creating a total score. A constant of 36 is removed from the total score, making the possible scoring range 0 to 144.

There have been reported cases of mis-scoring an adapted version of the ATP in the literature, the Attitude Towards Sex Offenders scale (ATS; Hogue, 1993) which utilises the same scoring principle (e.g. Radley, 2001; Ferguson & Ireland, 2006). Stirland & Hogue (unpublished) found that 33% of studies reviewed failed to calculate the score correctly according to the instructions. This demonstrates the potential for the ATP to be incorrectly scored and subsequent findings to be inaccurately reported. It is unclear whether this is due to the lack of detail in the guidance or human error. Thus, clarity from the original authors may be beneficial by expanding on the four lines of guidance text within their original paper.

Higher scores reflect positive attitudes towards prisoners suggesting that the individual views prisoners as "normal persons capable of positive change" (p.1; Kjelsberg et al., 2007). Lower scores reflect more negative attitudes that suggest the view that prisoners are deviant individuals and incapable of positive change.

This process generates a single score rather than detailing composite subscale scores which may provide more detailed analysis of attitude components, as suggested by multicomponent theories (e.g. Rosenberg & Hoveland, 1960; Jain,



2014). Additionally, the total score calculated can be reached by a series of different response combinations; therefore the score does not denote a single attitude pattern (Clark-Carter, 2004). Finally, this relatively simplistic dialectic view of attitudes does not reflect the literature regarding the complexity of attitudes held towards potentially emotive objects such as offenders (McCorkle, 1993; Demski & McGlynn, 1999).

## **VALIDITY**

Validity can be defined as the degree to which a scale measures what it purports to measure (American Educational Research Association, Psychological Association, & National Council on Measurement in Education, 1999). Additionally, validity incorporates the extent to which theory and evidence supports the interpretation of scores produced by administration of a scale. There are various measures of validity to consider (Clark-Carter, 2004), which will be covered in turn.

### **FACE VALIDITY**

Face validity refers to the degree to which the scale can be subjectively viewed as covering the concept it is designed to measure (Holden, 2010). The ATP clearly relates to prisoners as the term is utilised within each item. However, the transparency of the scale's focus could leave responses open to social desirability bias (Whitley, 2010), discussed later in more detail.

### **CONTENT VALIDITY**

Melvin et al. (1985) utilised the method of contrasted groups to assess the content validity of the tool. They predicted that results would vary across different groups working within the CJS. These contrasted groups were derived of those theoretically favourable towards prisoners (a prison reform group, prisoner rehabilitation volunteers, and prisoners themselves) and those considered to have negative attitudes (local enforcement officers, correctional officers, and a community sample). They reported validity was good due to findings supporting the hypothesised differences between groups.

As highlighted earlier, Cohen (1988) advocates the importance of reviewing the statistical power of a research study. However, no power analysis is reported

throughout the original paper regarding validation procedures (Melvin et al., 1985).

Calculations to determine the number of participants needed to appropriately reduce the chance of incorrectly retaining a false null hypothesis (restricting Type 2 errors) were carried out regarding the validity of the scale utilising the method of contrasted groups. This is recommended practice (APA, 2008) to assess whether the study retains enough power to accurately draw the conclusions stated. A medium effect size was considered appropriate (Cohen, 1988), setting power at 80%. Power analyses were completed for a medium effect size ( $f=0.25$ ) with  $\alpha=.05$  ( $\lambda=25$ , Critical  $F[4, 395]=1.85$ ), utilising G\*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007). An a priori sample size (due to controversy surrounding reporting post hoc power analyses; Thomas, 1997) regarding calculations for an ANOVA comparing five groups found that 400 participants were required to achieve the desired power according to Cohen's (1988) criteria.

Therefore, although no formal power analysis was reported in the original paper, it has been demonstrated that there was sufficient power ( $N=409$ ; Melvin et al., 1985) to draw such conclusions regarding content validity. This strengthens the authors' argument regarding the tool's ability to accurately measure individuals' attitudes towards prisoners.

## **CONSTRUCT VALIDITY**

Construct validity denotes the degree to which legitimate inferences can be concluded from the scale's factors to the theoretical constructs on which those factors were based (Western & Rosenthal, 2003). Two elements constitute construct validity (Western & Rosenthal, 2003); convergent and divergent validity, both of which must be evidenced to establish sufficient construct validity. These are discussed below.

To evidence convergent validity, one needs to demonstrate that measures of constructs theoretically related are observed to be as such. Therefore, one should be able to objectively demonstrate correspondence or convergence between similar constructs. Consequently, if a scale designed to measure a certain construct is associated closely with another measure designed to assess a similar

construct, it can be considered to have convergent validity (Western & Rosenthal, 2003).

Melvin et al. (1985) demonstrated convergent validity of the ATP by correlating a sample of 50 undergraduates' ATP scores with the Rokeach Dogmatism scale (Rokeach, 1954). Rokeach (1954) highlighted the association between dogmatism and a rejection of those who rebel against authority (i.e. prisoners). Melvin et al. (1985) reported a significant negative correlation ( $r=-.30$ ;  $p<.05$ ) between the two scores indicating a theoretical inverse relationship, demonstrating the convergent validity of the ATP.

Again, however, no power analysis was reported and sample size may not be sufficient to achieve the desired power to conclude convergent validity. Calculations to determine the number of participants required to reduce the chance of incorrectly retaining the null hypothesis were completed as is recommended practice (APA, 2008). Power analyses were completed for a medium effect size ( $f=0.3$ ) with  $\alpha=.05$ , utilising G\*Power 3 (Faul et al., 2007). An a priori sample size (due to controversy surrounding reporting post hoc power analyses; Thomas, 1997) regarding calculations for a correlation coefficient found that 111 participants were required to achieve the desired power according to Cohen's (1988) criteria. Therefore the sample used within the Melvin et al. (1985) paper was insufficient to draw conclusions regarding convergent validity of the ATP.

Convergent validity was also assessed by studying the characteristics of guards identified by a previous study (Gramling, 1979) as 'good', and examining their ATP scores. This approach demonstrated high convergent validity in terms of high ATP scores identifying 'good' guards. However, supplementary analysis only focused upon the 6 'best' and 6 'worst' guards, calling into question the power of the analysis and subsequently the ability of the authors to conclude sufficient convergent validity. Additionally, there is a degree of subjectivity within this approach, and minimal information is provided regarding the composite rating scores utilised by supervisors, peers, and prisoners, to rate guards.

Convergent validity has also been explored in later studies examining the psychometric properties of the ATP. Ortet-Fabregat et al. (1993) utilised construct-related and criterion-related validation procedures using the Wilson Patterson Attitude Index (WPAI; Wilson, 1975), a measure of attitudes towards

conservatism. They demonstrated a significant negative correlation ( $r=-.44$ ;  $p<.01$ ) with the ATP within a sample of  $N=191$  students. Despite achieving sufficient power regarding Cohen's criteria (1988), the sample is limited in terms of the authors' ability to generalise the findings to other populations of interest. Additionally, the WPAI contains two independent sub-scales (conservatism-liberalism and realism-idealism) and four oblique primary factors (militarism/punitiveness, anti-hedonism, ethnocentrism/intolerance and religion/puritanism), none of which is explored within this analysis.

In the development of the Attitudes towards Prisoners who Self Harm Scale (APSH) Ireland and Quinn (2007) compared scores with the ATP and found significant positive correlation ( $r=.30$ ;  $p<.01$ ) within a sample of  $N=162$  prison officers. This sample achieves sufficient power (Cohen, 1988) in addition to being more representative of populations of interest.

Moreover, Kjelsberg et al. (2007) utilised relatively large samples more representative of populations of interest which explore the ATP's convergent validity with beliefs about prisoners, crime, and punishment. This included prisoners ( $N=298$ ), prison employees ( $N=387$ ), and students ( $N=183$ ).

In summary, results support the original authors' conclusions regarding the tool's convergent validity and ability to accurately measure individuals' attitudes towards prisoners. However, there are concerns regarding methodology, including statistical power (Cohen, 1988) and the ability to generalise findings relating to certain examined populations (e.g. students) to others of interest (e.g. CJS professionals).

Conversely, to establish divergent validity, researchers need to demonstrate that measures which should not be related theoretically, are indeed, not related in reality. No studies reviewed report any such exploration. Therefore the construct validity of the tool cannot be wholly established; as previously stated, neither convergent nor divergent validity is sufficient to demonstrate construct validity (Western & Rosenthal, 2003).

Overall, there are several attempts to demonstrate the degree of validity across a number of measures including: face; content; and partial construct validity. However, despite demonstrating appropriate analyses to comment upon the

scale's construct validity, the ability to generalise these findings is limited in some cases. This is due to limited power (e.g. Melvin et al., 1985) or unrepresentative nature of samples (Ortet-Fabregat et al., 1993; Chui & Cheng, 2015).

## **RESPONSE DISTORTION**

Due to the self-report nature of the ATP, there are potential issues regarding validity of responding such as dissimulation (Osborne & Blanchard, 2010), response styles (e.g. acquiescence or criticality; Messick, 1991), random responding (Cronbach, 1950), socially desirable responding (Crowne & Marlowe, 1964), and deception (Vrij, 2000). All could potentially invalidate results.

The ATP contains no screening measure for inconsistent or random responding, and no deception scale is included. This absence could be considered a limitation potentially invalidating the results (Osborne & Blanchard, 2010), producing an inaccurate representation of attitudes towards prisoners. To remedy this, response style and social desirability need consideration. Inclusion of validation indices may provide insight into respondents' overall approach to the instrument and the potential validity of responding. Validation indices are often embedded within assessments of personality (Personality Assessment Inventory; PAI, Morey, 2007), examining exaggeration, defensiveness, and inconsistency due to carelessness, or random responding. The ATP may benefit from embedded validation indices.

Melvin et al. (1985) checked the ATP results of 50 student respondents against the results of the Marlow-Crowne Social Desirability Scale (Crowne & Marlowe, 1964), in an attempt to examine the effects of social desirability. No appreciable relationship was found between the response sets ( $r=-.02$ ;  $p>.10$ ) suggesting socially desirable responding was not associated with the ATP.

As cited earlier, calculations to determine the number of participants needed to reduce the chance of incorrectly retaining a false null hypothesis demonstrated that the sample size reported by Melvin et al. (1985) of  $N=50$  was insufficient to draw firm conclusions based upon Cohen's (1988) criteria regarding a medium effect size. Therefore, caution must be taken when assuming ability to generalise findings relating to this small, unrepresentative student sample to the wider sample population, as the authors do (Melvin et al., 1985).

Finally, Melvin et al. (1985) utilised a relatively equal number of positive and negative items, which were derived and presented in random sequence, to reduce the potential for acquiescent or critical certain responding styles (Messick, 1991). This approach reduces the chance of such responding styles impacting negatively upon the validity of the ATP.

## **RELIABILITY**

Reliability can be considered as the stability or consistency of scores over time or across different raters (Clark-Carter, 2004) and although not synonymous with, does impact upon, the overall validity of a test (Davidshofer & Murphy, 2005).

Various measures of the ATP's reliability have been reported upon which will be discussed in turn. Appropriate measures of consistency include correlation coefficients (Pearson's  $r$  and Kuder–Richardson Formula 20, KB-20; Kuder & Richardson, 1937), with authors evaluating reliability on this basis.

### **TEST-RETEST RELIABILITY**

The temporal stability of the ATP was assessed with a test-retest paradigm. A minimum level of .7 has been suggested as necessary for considering a test to be reliable over time (Kline, 1986; Nunnally, 1978). When comparing the responses of 40 undergraduate students over a two week period, reasonable test-retest reliability across time was reported ( $r=.82$ ;  $p<.01$ ). However, no power analysis is reported regarding the test-retest reliability of the scale. This is a pattern within research conducted within the last century (APA, 2008).

To determine sample size for the supplementary analyses, a review of the literature concluded that a sample size of 30 was adequate regarding a reliability analysis with two time points. This would provide a moderate effect size (Gay, 1992) and above the reported  $p=.9$  (95% CI) for an  $N=15$  (Shoukri, Asyali, & Donner, 2004). Regarding necessary power to draw firm conclusions based upon such analyses, calculations demonstrated that the sample size reported by Melvin et al. (1985) of  $N=40$  may have been sufficient to draw conclusions based upon Cohen's (1988) criteria regarding power for a medium effect size.

Similar levels of high test-retest and internal consistency reliability coefficients have been found in subsequent studies supporting the psychometric properties of

the ATP with a slightly larger sample size (Ortet-Fabregat et al., 1993;  $N=74$ ) still sufficient to reach the required power for medium effect size.

### **SPLIT-HALF RELIABILITY**

Internal consistency of the ATP was assessed and reported by Melvin et al. (1985) utilising a split-half reliability measure, correlating total odd and total even scores (correcting  $r$  with the Spearman-Brown formula). This demonstrated a high (Kline, 1986; Nunnally, 1978) split-half reliability between  $r=.86$  ( $p<.01$ ) and  $r=.90$  ( $p<.01$ ) of samples taken from student, prisoner and CJS professional populations. The sample of 50 undergraduate students again brings the ability to generalise the finding related to the sample into question. Once again, no power analysis is reported regarding the split-half reliability of the scale and similar criticisms regarding power of analyses apply for both types of reliability.

Additionally, high KB-20 (Kuder & Richardson, 1937) reliability was found regarding previous data (Gramling, 1979) which was utilised within the Melvin et al. (1985) study. Reliability between  $r=.86$  ( $p<.01$ ) and  $r=.92$  ( $p>.01$ ) in three different samples was reported. This supports the authors' argument that the scale has been found to have relatively high reliability.

However, supplementary smaller sample sizes were utilised for these analyses which could be argued to be limited, under powered and non-generalisable as they do not mirror the overall sample, so rendering the findings invalid.

The authors may have made decisions based upon practical issues regarding controlling study length and complexity when balancing the desire to maximise sample size and subsequently power of analyses and potential benefits gained from shortening the length of survey (Galesic & Bosnjak, 2009). Future research could assess the reliability of larger, more representative samples.

### **CLINICAL PRACTICE ISSUES**

The ATP has been used within independent research by researchers not involved in its development.

Ortet-Fabregat et al. (1993) compared attitudes towards prisoners across four groups of criminal justice professionals in Spain, utilising a translated version of

the ATP, to further examine the psychometric properties and generalisation of the original authors' findings.

In addition to a group comparison paradigm, Kjelsberg et al. (2007) explored the relationship between ATP scores and responses to a self-developed questionnaire about prisoners, crime and punishment in general in Norway. The authors utilised this approach to draw conclusions regarding the potential impact of the ATP upon correctional rehabilitation programmes' effectiveness and the success of prisoner reintegration post release.

Horn and Hollin (1997) used the ATP to examine whether Police Officers' attitudes towards male and female offenders differed from those of the general public in the UK. They found little difference between groups, but that both groups perceived female offenders more positively overall. Building upon this work, Murphy & Brown (2000) utilised the ATP to explore attitudes towards male and female offenders and the relation to sex, gender role and masculinity/femininity of occupational culture, rather than focusing purely on gender.

In a recent study, Chui & Cheng (2015) utilised a translated version of the ATP (ATP-C; Chui & Cheng, in press) to examine the impact of religious affiliation upon attitudes toward prisoners. They found that religion (Christianity and Buddhism) positively influenced attitudes towards this population. However, self-reported spirituality moderated this relationship.

These varied applications demonstrate the clinical utility of the tool and its relevance within different areas of research. However, caution must be taken when comparing findings across studies due to the variety of populations examined, cultures, sample sizes, and versions of the ATP utilised as discussed throughout this review.

## **ADAPTABILITY**

As mentioned earlier, one of the tool's strengths is the ease with which it can be adapted to explore attitudes towards different populations, replacing the term 'prisoner' with the focus population (e.g. ATS; Hogue, 1993).

This has generated extensive research and clinical utility when specifically focusing upon sexual offenders, a population considered as the "outcasts of the prison



system" (p.27, Hogue, 1993). There has been extensive exploration of the ATS's psychometric properties including general reliability (Craig, 2005), test-retest reliability (O'Dwyer, 2007), and convergent validity with related measures (Sanghara & Wilson, 2006). There has been wide ranging exploration of clinical applications of the ATS examining group comparisons (e.g. Hogue, 1993), gender differences (e.g. Higgins & Ireland, 2009), the impact of training (e.g. Hogue, 1995), and even influence upon decision making regarding punishment (e.g. Hogue & Peebles, 1997).

Additionally, the ATP has been adapted to explore attitudes towards mentally disordered offenders (Moore et al., 2002). However, this study included no examination of the newly developed tool's psychometric properties.

## **LANGUAGE AND TRANSLATION**

Developed within the USA, utilising participants from the Southern states, specifically Alabama, the original ATP was designed in the English language. This is the world's third most commonly spoken language (Parkvall, 2010), therefore has wide international utility.

The language used within the ATP lends itself well to translation due to simplicity of sentence construction. It can be used within international research increasing the ability to generalise the findings to other cultures (e.g. Norwegian, Kjelsberg et al., 2007; Catalan, Ortet-Fabregat et al., 1993; Chinese, Chui & Cheng, in press).

However, instrument translation potentially impacts upon validity and reliability (Hambleton, Merenda, & Spielberger, 2005). The original ATP has been translated into Chinese, Catalan and Norwegian (Chui & Cheng, 2015; Ortet-Fabregat & Perez, 1993; Kjelsberg et al., 2007) for use within international research. Translation processes may have impacted upon the validity of the instrument rendering the findings incomparable.

As previously highlighted, the potential impact of cultural, political, and religious philosophies across countries sampled must be taken into consideration when interpreting results and comparing findings cross-culturally (Chui & Cheng, 2015).

## **TEMPORAL ISSUES**

The ATP is temporally appropriate regarding its terminology. Item content is not dated or outmoded. This is despite being devised over three decades ago (1985), and using data previously collected and reported in 1979 (Gramling, 1979).

However, in the UK, England and Wales prison population has doubled since 1992 (Bottoms, 2008) and Scotland has one of highest incarceration rates in Northern and Western Europe (Armstrong & McNeill, 2012). This has led to increased public, political, and media interest towards this population (Arnal, 2014). Public attitudes towards prisoners may have changed since development of the ATP 30 years ago (Melvin et al., 1985). Therefore assumptions based upon Melvin et al.'s (1985) findings must be treated with caution.

Academic interest in exploring attitudes toward criminological issues has also increased significantly. This research has focused upon public attitudes towards; prisoners (e.g. Kjelsberg et al., 2007) and ex-prisoners (Hirshfield & Piquero, 2010); factors relating to the CJS such as punitiveness (e.g. Maruna & King, 2004) and fairness or effectiveness of punishment (e.g. Hough, Bradford, Jackson, & Roberts, 2013); and even capital punishment (Unnever, Cullen, & Fisher, 2005). Consideration of recent research findings regarding attitudes towards this population and more detailed validity exploration may produce a more robust, temporally relevant, scale.

Developed over half a century ago, the use of the Marlow-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) is outdated for current research. This is partly due to theory evolution regarding social desirability bias construction away from a unidimensional factor structure. Paulhus (1991) argues social desirability comprises two factors, self-deception and impression management. He developed The Paulhus Deception Scale Balanced Inventory of Desirable Responding (PDS) which assesses both. The PDS is a widely used psychometric within current research designed for concurrent use with a scale. The ATP may benefit from being administered concurrently with the PDS to test the effects of these constructs. This would test the potential for socially desirable responding to be invalidating the responses of the ATP.

## **GENDER ISSUES**

The ATP is not gender-exploratory. It focuses upon male prisoners and utilises male pronouns (e.g. item 36, "he"; item 9, "he'll"). Changing this would increase the degree to which the result can be generalised to female prisoners.

Methodologically robust research utilising the ATP has suggested a difference in attitudes dependent upon offenders' gender (Horn & Hollin, 1997), with female prisoners being viewed more positively, utilising a relatively large sample of police officers ( $n=135$ ) and non-police officers ( $n=201$ ). This suggests the findings regarding the ATP cannot be generalised to assume similar attitudes towards female prisoners.

Conversely, no difference was found regarding offender gender when exploring attitudes toward sex offenders (Higgins & Ireland, 2009). However, this study developed vignettes depicting sexual offences, therefore findings may not be comparable to gender influences upon attitudes towards prisoners in general. However, following research utilising the ATP, Murphy & Brown (2000) conclude that evidence regarding impact of prisoner gender upon attitudes remains inconclusive, and so it is relevant and inclusive to ensure a gender neutral examination of prisoners.

## **DISCUSSION**

As an overview, the ATP has fairly simple administration and scoring guidelines and is relatively short in length. It utilises the standard methodology recommended for the subject area, including simple statements requiring Likert style responses.

The ATP retains a relatively robust internal structure despite being developed utilising potentially subjective methodology. Additionally, as the original authors acknowledge, the development of the scale may be limited by lack of statistical power (Melvin et al., 1985). Additionally, studies which replicate this one factor structure are open to similar criticism regarding lack of statistical power and application of unsuitable analyses to draw such firm conclusions.

Following several assessments relating to the scale's overall validity, good face and content validity is observed. However, construct validity cannot be assumed

due to the lack of divergent validity (Western & Rosenthal, 2003), despite evidence of convergent validity (Melvin et al., 1985). As the original authors acknowledge, the exploration of the ATP's psychometric properties via supplementary analyses may be limited by lack of statistical power (Melvin et al., 1985). In addition to this, conclusions drawn within subsequent studies detailed within this critique are to be treated with caution regarding sampling methodologies related to power and representativeness.

Embedded attempts and supplementary analyses demonstrate authors' efforts to minimise response distortion; with findings suggesting response style and social desirability are not present. However, these findings have not been subsequently examined within the literature. There are concerns regarding the temporal relevance of the tools and approaches employed to determine accuracy of responding.

The ATP demonstrates temporal stability and internal consistency with analysis showing good test-retest and split-half reliability respectively (Melvin et al., 1985). Again, the power and representative nature of these supplementary analyses can be called into question. Additionally, caution is recommended so as not to assume generalisability from subsequent studies which explore the ATP's reliability, due to issues regarding sampling and power.

The ATP's continued applicability, translatability, and adaptability has resulted in varied independent international clinical and academic utility (e.g. various group comparisons, Ortet-Fabregat et al., 1993; Kjelsberg et al., 2007; gender, Horn & Hollin, 1997; Murphy & Brown, 2000; religious affiliation, Chui & Cheng, 2015). However, concerns regarding instrument translation and the impact of culture upon attitude construction must be taken into consideration when attempting to compare findings cross-culturally and across studies.

The ATP may benefit from review in light of increased interest in offenders resulting in potentially changed attitudes, development of new tools to assess response distortion, and generalisability regarding gender specificity. There may also be some benefit in developing a scale which explores different attitude components in light of current multicomponent models of attitudes (Rosenberg & Hovland, 1960; Jain, 2014), given research suggesting the complexity of attitudes towards offending populations (Arnal, 2014). Finally, a more succinct scale

retaining similar psychometric properties could be developed in light of PCA (Kjelsberg et al., 2007) and factor analysis (Chui & Cheng, in press) in line with recommended practice (Ledesma & Valero-Mora, 2007).

Although research demonstrates that the ATP is relatively robust in terms of its psychometric properties, so justifying continued application and relevance within wide ranging fields of study, it may benefit from a review and further analysis of psychometric properties. These developments may provide a more accurate method of assessing an individual's attitudes towards prisoner populations. This may allow for more accurate generalisation of, and reliance upon, conclusions drawn from future research utilising the ATP.

In conclusion, informed by this review, future adaptations of the ATP may benefit specifically from attention to the following areas. Firstly, examination of internal structure utilising appropriate statistical approaches including PCA and/or factor analysis will provide more accurate representation of the scale's construction. Further assessment of internal validity of the overall scale and sub factor scores would strengthen the ability to draw firm conclusions regarding findings. Exploration of the potential impact of impression management utilising well validated contemporary measures would ensure comment is made consistent with current theory. Advanced investigation of temporal reliability and construct validity with appropriately powered representative samples would support generalisability of findings. Finally, application within relevant fields would assess the clinical utility of the tool, establishing its value as an applied psychometric instrument.

## **RATIONALE FOR CHAPTER FOUR**

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Chapter three concluded that the ATP (Melvin et al., 1985) is suitable for adaptation due to its robust psychometric properties, consistent internal structure, and good validity and reliability. The potential areas for improvement in subsequent adaptation are also highlighted and used to inform subsequent adaptations. Chapter four describes the adaptation and development of a scale to measure attitudes towards mentally disordered offenders, the Attitudes Towards Mentally Disordered Offenders scale (ATMDO). This empirical study will assess the validity of the ATMDO using the recommendations from chapter three's review of the ATP regarding areas of improvement. Mentally disordered offenders are a population highlighted in chapter two's systematic review as being overlooked by existing scales, despite literature suggesting this may be a particularly vulnerable population, as was argued in chapter one.

## CHAPTER FOUR

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### **AN EXPLORATORY ANALYSIS OF A SCALE TO MEASURE ATTITUDES TOWARDS MENTALLY DISORDERED OFFENDERS.**

**Ashworth, S.,** Mooney, P. & Tully, R. J. (2016, May). *An Exploratory Analysis of a Scale To Measure Attitudes Towards Mentally Disordered Offenders.* CLAHRC East Midlands Institute of Mental Health Conference, Nottingham, UK.

**Ashworth, S.,** Mooney, P. & Tully, R. J. (2016, June). *An Exploratory Analysis of a Scale To Measure Attitudes Towards Mentally Disordered Offenders.* Division of Forensic Psychology Conference, Brighton, UK.

**Ashworth, S.,** Mooney, P. & Tully, R. J. (2016, October). *An Exploratory Analysis Of A Scale To Measure Attitudes Towards Mentally Disordered Offenders.* Research in Forensic Mental Health Services Conference, London, UK

## **ABSTRACT**

### **BACKGROUND**

This study adapts and validates a scale designed to measure Attitudes Towards Mentally Disordered Offenders (ATMDO). There is clinical utility in such an instrument. It is thought that by monitoring and subsequently improving attitudes negative potentially damaging milieus within criminal justice, forensic mental health, and society in general can be minimised.

### **METHODOLOGY**

Participants ( $N=364$ ) were recruited via snowball technique and data collected using an online version of the ATMDO. Psychometric properties were assessed. Specifically convergent validity was assessed with an additional sample B ( $N=50$ ), and test-retest reliability was assessed within an additional sample A ( $N=30$ ). Utilising a cross-sectional design, differences in ATMDO scores across occupational groups were compared.

### **RESULTS**

The ATMDO has a three factor structure, demonstrates robust reliability, and validity. Females [ $t(1,362)=2.56, p=.01$ ] and those with a friend or family member considered a mentally disordered offender [ $t(1,362)=-2.75, p=.01$ ] scored significantly higher. Age, length of time in forensic mental health services and type of MDO they had experience with had no significant impact. Although ATMDO scores did not differ significantly across occupational groups [ $F(2,361)=2.86, p=.06$ ], professionals scored significantly higher than paraprofessionals regarding overall ATMDO, factor one (Treatment) and three (Personal). Professionals scored significantly higher than general population regarding factor two (Risk), and general population scored significantly higher than paraprofessionals regarding factor three (Personal). Regression analysis demonstrates the influence of demographic and occupational variables in predicting ATMDO scores.

### **CONCLUSION**

The ATMDO is robust and has clinical utility for comparison of professional groups or institutions, and within recruitment procedures.



## INTRODUCTION

The introduction of the Mental Deficiency Act (1913), developed later in the Mental Health Act (1983), presented the idea of diverting individuals suffering with mental health problems away from the penal system into appropriate institutions providing treatment. This pathway utilises hospital orders and involvement of the Home Office (Harding, Hines, Ireland & Rawlings, 1985). The increasing use of Liaison and Diversion schemes (National Health Service England; NHS, 2014) means that offender populations are not limited to prison settings. More frequently, offenders with mental disorders are treated and managed in forensic mental health (FMH) settings.

The United Kingdom (UK) Crown Prosecution Service (CPS) uses the term 'mentally disordered offender' (MDO) to describe a person who has a disability or disorder of the mind and has committed a criminal offence (Mental Health Act; MHA, 2007; amended from the Mental Health Act, 1983). This heterogeneous group includes individuals diagnosed with mental illness, personality disorder, and/or learning disability. However, the majority of the literature regarding this area uses the terms 'mental health problems', 'mental disorder' and 'mental illness' interchangeably (e.g. Glendinning & O'Keeffe, 2015).

The Bradley Report (Bradley, 2009) was commissioned to address the current issues faced by those with mental health problems and/or learning disability within the UK CJS. It highlights the ongoing problem of high rates of mental disorders within forensic populations (Fazel & Danesh, 2002) and the key role played by "attitudes and perceptions of prison and hospital staff towards mental illness and offenders" (p.105). Attention regarding the treatment of individuals within FMH services has increased due to recent investigations (e.g. Winterbourne View; Flynn & Citarella, 2012).

The relevance of attitudes regarding treatment of MDOs has become pertinent following reformist change regarding previously punitive ideology within the CJS (Knight & Stephens, 2009). As such, MDOs should be considered separately when assessing attitudes toward offender populations, not merely seen as equivalent to those within the CJS generally (Bradley, 2009).

Research addressing attitudes towards offenders with mental health problems illustrates that this subgroup attracts relatively negative connotations. This includes from society in general (Stier & Hinshaw, 2007), other offenders (Edwards, 2000), and individuals involved in the management, care, and treatment of this subgroup, such as Prison/Correctional Officers (Kropp, Cox, Roesch, & Eaves, 1989; Callahan, 2004; Lavoie, Connolly, & Roesch, 2006). Prisoners with mental disorders are considered less predictable, rationale, and understandable than general prisoners, and more dangerous than prisoners with mental illness (Kropp et al., 1989).

Following increased use of Liaison and Diversion schemes (NHS England, 2014), MDOs are being redirected from the CJS into healthcare pathways. Therefore, exploring the attitudes of those in direct contact with MDOs within these contexts may be beneficial (Bradley, 2009). The safe care, appropriate treatment, and rehabilitation prospects may be at risk if attitudes towards this population go unexplored (Flynn & Citrella, 2012).

It has been demonstrated that staff members' attitudes towards offender populations can impact upon several factors associated with care, reform, and rehabilitation. These historically include rehabilitation treatment efficacy (Glazer, 1969), management of tension, strain and confrontation within prison settings (Jurik, 1985), and interaction styles (Hogue, 1995). These are key elements in offender rehabilitation (Blow, Sprenkle, & Davis, 2007). More recent research demonstrates that attitudes shape reactions to offenders within prisons (Callahan, 2004), decision making regarding risk and/or care (Callahan, 2004), belief that offenders have the potential to desist from offending (Blagden, Winder, & Hames, 2016), and even impact upon community reintegration (Kjelsberg, Skoglund, & Rustad, 2007).

Professional FMH staff members receive training regarding mediating attitudes towards client groups (e.g. Practitioner Psychologists' Standards of Proficiencies; Health Care Professionals Council, HCPC, 2015). Emphasis is given to potential impact attitudes have upon therapeutic relationship development (Roth & Fonagy, 1996), belief regarding offenders' ability to desist from crime (Blagden et al., 2016), and subsequently treatment efficacy. However, as with prison security personnel (Dvoskin & Spiers, 2004), individuals who tend to form the largest

proportion of client-staff contact within FMH settings (and logically have the greatest impact) are 'non-professional' nursing staff. This population receives little attention, training, and/or support in this area due to lack of professional training/registration, as with prison staff (Dvoskin & Spiers, 2004; Lavoie et al., 2006). Kropp et al. (1989) highlight the need to take the perceptions and needs of such individuals into account when developing their semantic differential perceptions scale.

Lavoie et al. (2006) detail how improper management of MDOs can have numerous harmful effects. This includes damage to services' operation (Welsh & Ogloff, 2003), increased disruptive/potentially harmful behaviours (McCorkle, 1993), risk of victimization (Cooley, 1992), and suicide (Polvi, 1997). All of which potentially impact upon wellbeing of staff members and those for whom they are responsible (Appelbaum, Hickey, & Packer, 2001). Lavoie et al. (2006) advocate the need for training regarding MDO management as this has been linked with increased positive attitudes. Although comment is made regarding Canadian correctional facilities utilising relatively small samples, the opportunity for improvement of attitudes towards MDOs is clear.

In the UK, several high profile cases demonstrate that attitudes can influence staff members' behaviour in a more drastic manner. It has become apparent that staff members' attitudes towards certain populations sectioned under the MHA (2007), can have significant detrimental effect upon care and treatment. Following a serious case review (Flynn & Citarella, 2012) regarding the treatment of individuals with mental disorders (including learning disability, autism spectrum disorder, mental health conditions and/or demonstrated behaviours described as challenging) within services, the UK's Department of Health (DoH, 2012) issued the Transforming Care report. This stated "while stronger regulation and inspection, quality information and clearer accountability are vital, so too is developing a supportive, open and positive culture in our care system" (p.5). They called for a reform which "promotes compassionate care across the system" (p.5) emphasising the need for constructive attitudes and cultures towards those we are responsible for. Such cases have sparked consideration of how organisational cultures and individual attitudes can impact upon behaviour with potentially abusive results.

It is thought that by monitoring and subsequently improving attitudes one can minimise negative and potentially damaging milieus within the CJS, FMH settings, and society in general. This may reduce the stigma associated with individuals with mental disorders (Angermeyer & Dietrich, 2006), help reduce potential bias during jury decision making, reduce stigmatisation and punitive attitudes potentially improving community rehabilitation prospects post treatment as with sexual offenders (Hogue, 1993; Willis, Levenson, & Ward, 2010; review see Harper, Hogue, & Bartels, 2017).

The issue of individuals' attitudes and behaviours towards potentially vulnerable populations such as MDOs has become politically significant, warranting further exploration (Lavoie et al., 2006).

### **CURRENT STUDY**

The current study attempts to develop and validate a new scale to measure attitudes towards MDOs.

There are several instruments in existence measuring attitudes towards offender subpopulations including; prisoners (Melvin, Gramling, & Gardener, 1985), sex offenders (Hogue, 1993), offenders with mental illness (Glendinning & O'Keeffe, 2015), and offenders with personality disorders (Bowers et al., 2006). There is reasonable justification to extend examination of attitudes towards prisoner populations to MDOs, due to the increasing recognition of mental health issues within offending populations (Fazel & Danesh, 2002), the importance of addressing this population's needs (Bradley, 2009) and the current inability to accurately and robustly assess attitudes towards this population despite historical attempts (Kropp et al., 1989)

Data obtained is examined to assess the scale's construction (principal components analysis varimax rotation) and psychometric properties, including reliability (internal consistency and test-retest) and validity (convergent and impression management due to the potential for socially desirable responding).

Guided by the literature the impact of additional factors are explored including socio-demographic characteristics (such as gender and age; NHS, 2011; Addison & Thorpe, 2004), length of time worked within FMH settings, type of MDOs

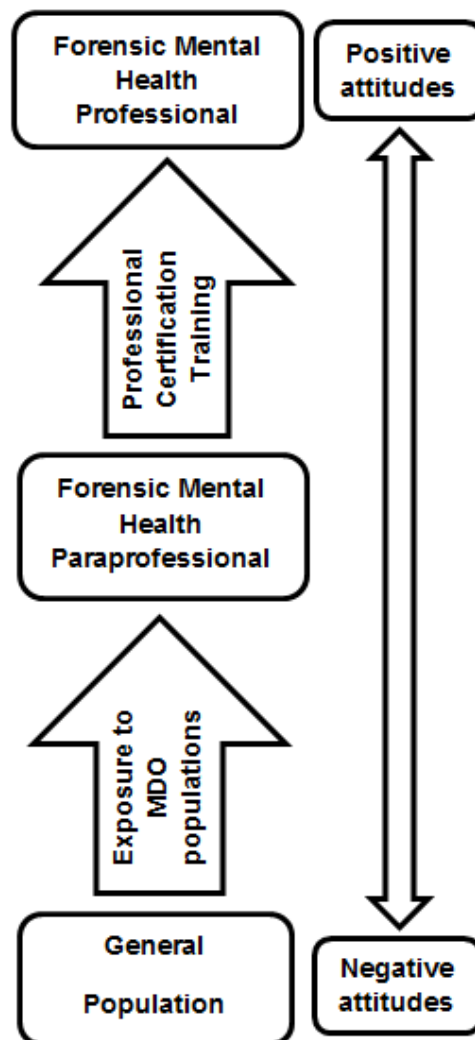
participants have worked with, and whether the participant has a close friend or family member considered a MDO (FFM).

A group comparison method examines potential differences between attitudes of the general population (GP), forensic mental health professionals (FMHP) and forensic mental health paraprofessionals (FMHPP) within the UK.

### **PROPOSED MODEL**

The hypothesised impact of two factors upon the attitudes of occupational groups is represented within the proposed ATMDO process model (Figure 4.1).

*Figure 4.1: Proposed Attitudes Towards Mentally Disordered Offenders Model*



The model is based upon several factors. These include the theory of mere exposure (Zajonc, 1968; review see Montoya, Horton, Vevea, Citkowicz, & Lauber, 2017), the theorised impact of knowledge upon attitudes (Ajzen, 2001; Wood,

2000), previous findings regarding impact of occupational groups upon general attitudes towards offender populations, including prisoners (e.g. Kjelsberg et al., 2007) and sexual offenders (e.g. Hogue, 1993), and the evidenced impact of training upon offender populations (Hogue, 1995; Simon & Arnaut, 2011; in Harper et al., 2017).

## **METHODOLOGY**

*Ethical Approval:* This study was reviewed and approved by The University of Nottingham, Faculty of Medicine and Health Sciences Research Ethics Committee (Appendices I and J).

*Power Analysis:* A review of the literature demonstrates the Comrey & Lee's (1992) guidance states a sample size of 300 is sufficient to complete factor analysis to a "good" degree. However guidance varies (Williams, Brown, & Onsman, 2010).

A priori sample size calculations (G\*Power 3, Faul, Erdfelder, Lang, & Buchner, 2007) for an ANOVA found 252 participants were required to achieve 80% power (Cohen, 1998) for a medium effect size ( $f=0.25$ ,  $\alpha=.05$ ,  $\lambda=15.7$ , Critical  $F[2, 248]=3.03$ ), creating a minimum sample size of  $N=84$  per group.

To determine sample size for supplementary analyses, comparable studies (ATP; Melvin et al., 1985, ATS; Hogue, 1993) were referenced in addition to statistical experts' recommendations. Regarding additional sample A,  $N=30$  was adequate regarding two time-point reliability analyses, providing moderate effect size (Gay, 1992) above the reported  $p=.9$  (95% CI) for  $N=15$  (Shoukri, Asyali, & Donner, 2004). Regarding additional Sample B,  $N=50$  was adequate regarding convergent validity (Atkinson & Nevill, 2000).

*Participants:* Utilising a snowball sampling technique participants were recruited through email invitation (Appendix K) of select FMH employment centres' internal email systems, and posting in social media fora (e.g. Facebook; Appendix L). Researchers acted under arrangements with employment organisations and permission from relevant authorities consistent with ethical approval.

Regarding the main sample, 383 participants were recruited. Two were excluded due to lack of age verification. Seventeen participants identified themselves FMH

staff members but did not specify occupational subcategory and were removed. The final sample of 364 consisted of 264 females and 100 males.

Participants were categorised by occupation into groups; general population (GP) and forensic mental health workers (FMHW), subdivided into forensic mental health professionals (FMHP) and forensic mental health paraprofessionals (FMHPP). Information regarding completion rates demonstrated 11.33% attrition rate of those who followed the link.

*Materials:* The Attitudes Towards Mentally Disordered Offenders scale (ATMDO) was developed by adapting the ATP (Melvin et al., 1985), replacing references to 'prisoner' with the term 'mentally disordered offender' creating a parallel scale designed to assess attitudes towards MDOs. The ATP initial instruction paragraph was adapted to provide a definition of the term MDO (Appendix M).

*Procedure:* Participants were provided a summary of the study and a Uniform Resource Locator (URL) which redirected participants to the Bristol Online Survey platform. Initially, an information page and the opportunity to provide consent to continue were presented (Appendix N). They were assured of anonymity and informed that involvement was voluntary, consistent with ethical guidelines. Participants were informed they could discontinue at any time, but that data could not be withdrawn. Participants were asked to provide socio-demographic information (age, gender, occupation) before being presented with an instruction paragraph and the 36 item ATMDO scale; they were asked to rate their level of agreement to each statement on a five-point Likert scale (Appendix M). Finally, participants were presented with a debrief page, providing details of how the information provided would be used and contact details of the research supervisor.

An additional sample (A;  $N=30$ ) was prompted to complete the survey again following a two-week period. They were asked to create a unique identification code to assess accuracy and anonymously match response sets.

A second additional sample (B;  $N=50$ ) was additionally asked to complete Paulhus Deception Scale Balanced Inventory of Desirable Responding Impression Management items (PDS-IM; Paulhus, 1991) and the original ATP (Melvin et al., 1985).

*Scoring:* Data was scored using Melvin et al.'s (1985) instructions and exported into SPSS for analysis.

## RESULTS

### DESCRIPTIVE ANALYSIS

*Normality:* Data was screened for normality using the Kolmogorov-Smirnov test. Data was normally distributed regarding ATMDO score [ $D(364)=.04, p=.17$ ], [ $D(50)=.08, p=.2$ ], ATP [ $D(50)=.10, p=.2$ ], and PDS-IM scores [ $D(50)=.12, p=.09$ ]. Therefore data was analysed parametrically.

The mean overall ATMDO score was  $M=100.96$  ( $SD=15.33$ ) ranging from 43 to 135 ( $N=364$ ). There was a mean age of  $M=34.62$  ( $SD=11.34$ ) ranging from 18 to 76 years. Thirty participants indicated they had a friend or close family member considered a MDO. The mean number of years FMHW participants had worked within FMH was  $M=4.96$  ( $SD=5.29$ ) ranging from 0 (newly starting) to 26 years. Table 4.1 demonstrates the sample size breakdown across occupational categories.

*Table 4.1:* Sample sizes and Percentages across Occupational Groups and Demographic Categories within Main Sample ( $n$ )

	<b>Total</b>	<b>Female (%)</b>	<b>Male (%)</b>	<b>FFM (%)</b>	<b>No FFM (%)</b>
<b>General Population</b>	165	126 (76.36)	39 (23.64)	11 (6.67)	154 (93.33)
<b>Forensic Mental Health Workers</b>	199	138 (69.35)	61 (30.65)	19 (9.55)	180 (90.45)
- <b>Paraprofessionals</b>	89	55 (61.8)	34 (38.2%)	10 (11.2%)	79 (88.76)
- <b>Professionals</b>	110	83 (75.45)	27 (24.55)	9 (8.18)	101 (91.82)
<b>Total</b>	364	264 (72.53)	100 (27.47)	30 (8.24)	334 (91.76)

The current study's gender distribution reflects distribution across occupational categories from data obtained from FMH service (Table 4.2).



*Table 4.2: Sample Gender Distribution across Occupational Groups Compared with Gender Distribution of Data Obtained from Governmental Reports and Medium Secure Forensic Mental Health Service*

	<b>Gender</b>	<b>% Population Sample*</b>	<b>% Study Sample</b>
<b>General Population</b>	Female	48.71	76.36
	Male	51.29	23.64
<b>Paraprofessionals</b>	Female	62.02	61.80
	Male	37.99	38.20
<b>Professionals</b>	Female	76.77	75.45
	Male	23.23	24.55

\* Population data regarding general population taken from DoH (2016) and medium secure forensic service human resources records regarding forensic mental health workers

### **EXPLORATORY DEMOGRAPHIC ANALYSIS**

*Gender:* A significant difference was found regarding gender distribution across the occupation groups (GP, FMHPP and FMHP) [ $F(2,361)=3.45, p=.03$ ] (Table 4.2). General population had the highest percentage of female participants (76.36%), followed by professionals (75.45%), then paraprofessionals (61.80%). There was a significant difference in ATMDO score, across genders [ $t(1,362)=2.56, p=.01$ ]. Females reported more positive attitudes ( $M=102.21, SD=15.54$ ) than males ( $M=97.64, SD=14.28$ ).

*Age:* No significant correlation was found between participant age and ATMDO score [ $r=.01, p=.87$ ].

*Length of time in FMH Services:* No significant correlation was found between length of time FMHW had spent within FMH services and ATMDO score [ $r=.04, p=.57$ ].

*Type of MDO:* There was no significant difference in FMHW ATMDO score, as a result of the MDO client group they had experience working with [ $F(6,191)=1.11, p=.36$ ] (Table 4.3).

*Table 4.3: Mean Attitude Towards Mentally Disordered Offenders Scale Overall Score by Client Group Experienced*

<b>Client Group</b>	<b>M</b>	<b>SD</b>	<b>n</b>
Not sure	106.44	14.44	18
Learning disability	99.88	21.66	8
Mental illness	90.56	16.96	9
Personality disorder	100.50	6.36	2
Learning disability, mental illness	108.00	11.40	4
Learning disability, personality disorder	95.00	21.21	2
Mental illness, personality disorder	100.43	12.75	30
Learning disability, mental illness, personality disorder	101.72	15.62	126

*Close friend or family member considered a MDO:* No significant difference was found between occupational groups regarding whether participants had a FFM considered a MDO [ $F(2,361)=.8, p=.45$ ]. However, there was a significant difference in ATMDO scores between those who reported they had a FFM considered a MDO and those who did not [ $t(1,362)=-2.75, p=.01$ ]. Those who did report they had a FFM considered a MDO reported more positive attitudes ( $n=30, M=108.27, SD=16.18$ ) than those who did not ( $n=334, M=100.3, SD=15.10$ ).

## **PSYCHOMETRIC PROPERTIES**

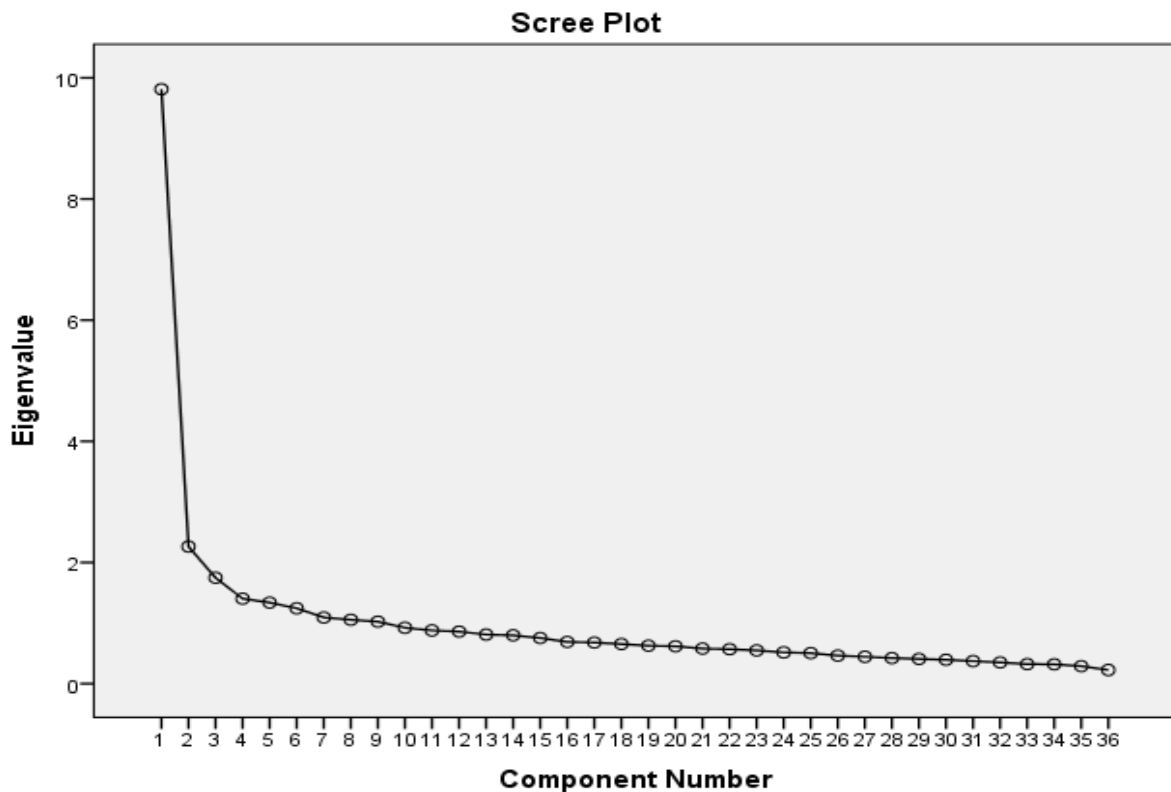
*Internal Structure:* Prior to subjecting the 36 items to the ATMDO to a Principal Components Analysis (PCA), the suitability of the data for analysis was assessed ( $N=364$ ). Inspection of the correlation matrix revealed the presence of a number of coefficients  $>.3$ . The Kaiser-Meyer-Olkin measure of sampling adequacy value was .91 and the Bartlett's Test of Sphericity reached statistical significance ( $p<.001$ ). Findings supported factorability of the correlation matrix and data were subjected to PCA (Cerny & Kaiser, 1977).

The initial PCA revealed the presence of nine components (eigenvalues  $>1$ ; Kaiser's criterion; Kaiser, 1960) together explaining 58.28% of the variance (Appendix O). The initial component explained 27.26% of the variance (eigenvalue 9.81). Following rotation this amounted to 11.26% (eigenvalue 4.05).

Due to recommendations regarding suitability of sample size (Stevens, 2002) an inspection of the scree plot (Figure 4.2) revealed a break after the first component

and a point of inflexion between the third and fourth components (scree test; Cattell, 1978) supporting retention of three to four factors.

Figure 4.2: Attitudes Towards Mentally Disordered Offenders Scale Scree Plot



Utilising an online Parallel Analysis Engine (Vivek, Singh, Mishra, & Donovan, 2007) parallel analysis was completed as is argued to be superior practice (Ledesma & Valero-More, 2007) using an equivalent matrix (36 variables x 364 respondents; Appendix P). It was evident that three factors should be retained as their associated eigenvalues exceeded the corresponding criterion values calculated from random uncorrelated normal variables (Horn, 1965).

To aid interpretation of a three factor solution, orthogonal varimax rotation was performed (Table 4.4). This method was selected so individual factor scores could be used in further analyses as dependent variables (Tabachnick & Fidell, 1996) as within literature within the field (Ireland & Quinn, 2007). Additionally, there was no theoretical reason to suppose the underlying factors should be related therefore it was considered that orthogonal rotation was appropriate (Field, 2013). The rotated solution revealed the presence of a three component structure, explaining 38.4% of the variance.

Table 4.4: Attitudes Towards Mentally Disordered Offenders Scale Factor Structure

Item	Loading
<b>I. Treatment</b>	
<b>(15.13% of variance; eigenvalue 5.45)</b>	
Most mentally disordered offenders are victims of circumstance and deserve to be helped	.72
Mentally disordered offenders have feelings just like the rest of us	.63
Bad prison conditions just make a mentally disordered offender more bitter	.63
Mentally disordered offenders need affection and praise just like everybody else	.62
Trying to rehabilitate mentally disordered offenders is a waste of time and money*	.61
Mentally disordered offenders are no better or worse than other people	.61
Most mentally disordered offenders are too lazy to earn an honest living*	.59
Mentally disordered offenders are just plain mean at heart*	.52
Most mentally disordered offenders have the capacity for love	.50
Mentally disordered offenders are just plain immoral*	.49
Mentally disordered offenders should be under strict harsh discipline*	.46
In general, mentally disordered offenders are basically bad people*	.44
Most mentally disordered offenders can be rehabilitated	.42
Some mentally disordered offenders are pretty nice people	.35
Mentally disordered offenders respect only brute force*	.32
<b>II. Risk</b>	
<b>(13.13% of variance; eigenvalue 4.72)</b>	
Mentally disordered offenders are different from most people*	.62
Only a few mentally disordered offenders are really dangerous	.61
Mentally disordered offenders never change*	.57
It is not wise to trust a mentally disordered offender too far*	.57
I think I would like a lot of mentally disordered offenders	.54
If you give a mentally disordered offender respect, he'll give you the same	.53
There are some mentally disordered offenders I would trust with my life	.52
Mentally disordered offenders will listen to reason	.52
I wouldn't mind living next door to an ex-mentally disordered offender	.49
The values of most mentally disordered offenders are about the same as the rest of us	.48
I would never want one of my children dating and ex-mentally disordered offender*	.46
I would like associating with some mentally disordered offenders	.32
If a mentally disordered offender does well in prison, he should be let out on parole	.32

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### **III. Personal**

**(10.15% of variance; eigenvalue 3.65)**

Give a mentally disordered offender an inch and he'll take a mile*	.63
Most mentally disordered offenders are stupid*	.59
You should not expect too much from a mentally disordered offender*	.53
You never know when a mentally disordered offender is telling the truth*	.52
You have to be constantly on guard with mentally disordered offenders*	.52
In general, mentally disordered offenders think and act alike*	.47
Mentally disordered offenders only think about themselves*	.44
Mentally disordered offenders are always trying to get something out of somebody*	.44

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*\*indicates reverse scored items*

Following a review of the loadings (Appendix Q), it was apparent component one comprised of 15 items and explained the highest proportion of variance. The items which loaded onto this component reflect upon treatment and management of MDOs (I: Treatment). Component two comprised of 13 items which reflect risk assessment and trust of MDOs (II: Risk). Component three comprised of eight items which focus upon personal attributes and characteristics of MDOs (III: Personal). All items loaded onto the associated component above the recommended level ( $>.32$ ; Tabachnick & Fidell, 2001) and were therefore retained as statistically meaningful. However, it should be noted that some items attracted relatively low loadings and there were instances of cross loadings (Costello & Osborne, 2005). Although when these items were examined they represented latent variables of the component and were therefore retained (Yong & Pearce, 2013). Each component comprised of more than three items (Brown, 2006). Appendix R demonstrates components' descriptions, related items and associated loadings.

Based upon additional exploratory analyses (including varimax rotation of a four factor solution and oblique direct oblimin rotation of a three factor solution) and a review literature guidance (Pedhazur & Schmelkin, 1991; Tabachnick & Fidell, 2001; Thurstone, 1947; in Field, 2013) it was decided the three factor solution resulting from orthogonal varimax rotation retaining the 36 items was appropriate. Some argue orthogonal rotation is preferable in the exploratory stages of analysis (Kim & Mueller, 1978). However, it should be acknowledged that there may be some association between the first two components (although remaining correlations were negligible) and some cross loading was identified.

*Internal Consistency:* Cronbach's alpha coefficient of the ATMDO was considered excellent at  $\alpha=.91$  ( $N=364$ ) (Nunnally, 1978; Tavakol & Dennick, 2011). Examination of the factors proved them to be internally reliable, producing coefficients of .86, .82, and .75 respectively.

*Test Retest reliability:* Temporal reliability was established by administering the ATMDO to the additional sample A ( $N=30$ ) and re-testing two weeks later. A significant positive correlation between ATMDO score at time one ( $M=105.1$ ,  $SD=11.5$ ) and time two ( $M=105.9$ ,  $SD=12.89$ ) was found [ $r=.88$ ,  $p<.001$ ].

*Convergent Validity:* ATMDO scores ( $M=99.82$ ,  $SD=15.49$ ) were significantly positively correlated with the total ATP (Melvin et al., 1985) scores ( $M=98.26$ ,  $SD=17.62$ ) [ $r=.83$ ,  $p<.001$ ], in additional sample B ( $N=50$ ). This was considered adequate to evidence sufficient convergent validity (Kline, 1986; Nunnally, 1978).

*Response Distortion:* To counteract acquiescence set, 19 negative and 17 positive items were used within a random sequence as with the ATP (Melvin et al., 1985). No significant correlation was found between the total ATMDO scores ( $M=99.82$ ,  $SD=15.49$ ) and the total PDS-IM (Paulhus, 1991) scores ( $M=60.58$ ,  $SD=6.02$ ) [ $r=-.12$ ,  $p=.39$ ], in the additional sample B ( $N=50$ ).

*Contrasted Groups:* The method of contrasted groups was utilised explore differences across the three occupational groups within the main sample ( $N=364$ ); forensic mental health professionals (FMHP;  $n=165$ ), forensic mental health paraprofessionals (FMHPP;  $n=89$ ), and general population (GP;  $n=110$ ).

A one-way ANOVA (Table 4.5) demonstrated that the three groups' score did not differ significantly regarding overall ATMDO score, factor one (Treatment), or factor two (Risk). However, the three groups did differ significantly regarding factor three (Personal).

*Table 4.5:* Analysis of Variance between Occupational Groups regarding Attitude Towards Mentally Disordered Offenders Scale Overall and Sub Factor Scores

	<b>Degrees of freedom (df)</b>	<b>F value</b>	<b>p value</b>
<b>Total ATMDO</b>	2, 361	2.86	.06
<b>I. Treatment</b>	2, 361	2.40	.09
<b>II. Risk</b>	2, 361	1.96	.14
<b>III. Personal</b>	2, 361	5.93	.003

These differences were examined further in terms of ATMDO overall and sub factor scores. Regarding overall ATMDO score, FMHP ( $M=103.65$ ,  $SD=14.13$ ) scored significantly higher than FMHPP ( $M=98.65$ ,  $SD=16.54$ ) [ $t(2,361)=-2.31$ ,  $p<.05$ ]. GP scored between these groups but did not differ significantly from either ( $M=100.39$ ,  $SD=15.25$ ).

Regarding factor one (Treatment), FMHP ( $M=49.03$ ,  $SD=6.36$ ) scored significantly higher than FMHPP ( $M=46.91$ ,  $SD=7.47$ ) [ $t(2,361)=-2.16$ ,  $p<.05$ ]. GP scored between these groups but did not differ significantly from either ( $M=47.97$ ,  $SD=6.71$ ).

Regarding factor two (Risk), FMHP ( $M=31.63$ ,  $SD=6.4$ ) scored significantly higher than GP ( $M=29.35$ ,  $SD=6.96$ ) [ $t(2,361)=-2.05$ ,  $p<.05$ ]. FMHPP scored between these groups but did not differ significantly from either ( $M=30.03$ ,  $SD=7.26$ ).

Regarding factor three (Personal), both FMHP ( $M=23.61$ ,  $SD=3.82$ ) and GP ( $M=23.07$ ,  $SD=3.87$ ) scored significantly higher than FMHPP ( $M=21.71$ ,  $SD=4.33$ ) [ $t(2,361)=-2.57$ ,  $p<.05$ ] [ $t(2,361)=-3.29$ ,  $p<.01$ ] but did not differ significantly from each other.

*Multiple Linear Regression Analysis:* Post hoc sample size calculations (G\*Power 3, Faul et al., 2007) for multiple regression analysis with a minimum of four predictor variables for a moderate expected effect size of .15 demonstrated  $N=364$  was sufficient to achieve the desired power.

Four separate stepwise multiple linear regressions were conducted to predict variability in ATMDO score and the three sub factor scores, using four dichotomous categorical predictor variables. These predictor variables were selected due to findings suggesting they had significant impact upon ATMDO score. These included gender, whether they had an FFM considered a MDO, whether they had occupational exposure to MDOs and whether they had received professional training. The stepwise method was selected due to the exploratory model building nature of the analysis (Field, 2013). Examinations of correlations between predictors, tolerance, and VIF values indicated that multicollinearity was not extreme enough to be problematic.

Regarding ATMDO score, three significant regression equations were found involving three predictor variables, explored across three models (Table 4.6).

Model one predicted 2% of the variance. Those who had an FFM scored 7.97 points higher than those who did not. Model two predicted 4% of the variance. Those who had FFM scored 7.77 points higher than those who did not. Males scored 4.44 points lower than females. Model three predicted 5% of the variance. Those who had a FFM scored 7.78 points higher than those who did not. Males scored 4.27 points lower than females. Those who received training scored 3.31 points higher than those who did not.

Regarding factor one (Treatment), a significant regression equation involving one predictor was found (Table 4.6) predicting 3% of the variance. Males scored 2.65 points lower than females.

Regarding factor two (Risk), a significant regression equation involving one predictor was found (Table 4.6) predicting 2% of the variance. Those who had a FFM scored 3.79 points higher than those who did not.

Regarding factor three (Personal), three significant regression equations were found involving three predictor variables explored across three models (Table 4.6). Model one predicted 1% of the variance. Those who had received training scored 1.02 points higher on than those who did not. Model two predicted 3% of the variance. Those who had received training scored 1.9 points higher than those who did not. Those who had exposure scored 1.37 points lower than those who had not. Model three predicted 5% of the variance. Those who received training scored 1.96 points higher than those who did not. Those who had exposure scored 1.45 points lower on factor three than those who did not. Those who had a FFM scored 1.81 points higher than those who did not.



Table 4.6: Regression Model Comparing Influence of Variables upon Attitude Towards Mentally Disordered Offenders Scale Overall and Sub Factor Scores

	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> change	<i>F</i> change	<i>p</i>
<b>Total ATMDO</b>				
Step one	.02	.02	7.57	.006
- FFM				
Step two	.04	.02	6.28	.013
- FFM				
- Gender				
Step three	.05	.01	4.68	.031
- FFM				
- Gender				
- Training				
<b>I. Treatment</b>				
Step one	.03	.03	11.21	.001
- Gender				
<b>II. Risk</b>				
Step one	.02	.02	8.49	.004
- FFM				
<b>III. Personal</b>				
Step one	.01	.01	4.94	.03
- Training				
Step two	.03	.02	6.84	.009
- Training				
- Exposure				
Step three	.05	.02	5.78	.02
- Training				
- Exposure				
- FFM				

## DISCUSSION

The findings of this study demonstrate that the ATMDO has a three factor structure. It has high internal consistency, test-retest reliability, convergent validity (with the ATP; Melvin et al., 1985), and is free from response distortion. Analysis showed that demographic characteristics of gender and having a friend or family member considered a MDO had a significant impact upon ATMDO overall and sub factor scores. This was in addition to the occupational related variables of

exposure to MDO populations and professional training which will be explored within this discussion.

## **DEMOGRAPHIC CHARACTERISTICS**

The mean ATMDO scores ( $M=100.96$ ;  $SD=15.33$ ) are within the range of mean scores reported previously for the ATP (Melvin et al., 1985), but are markedly higher than those reported for the ATS (Hogue, 1993).

When additional sample B's mean ATP scores ( $N=50$ ,  $M=98.26$ ,  $SD=17.62$ ) are compared with those previously reported, similar findings can be observed. Melvin et al. (1985) reported mean ATP scores ranging from  $M=67.6$  ( $SD=16.6$ ) to  $M=109.5$  ( $SD=13.41$ ). Subsequent studies report ATP means ranging between  $M=71.1$  ( $SD=57.78$ ) to  $M=98.5$  ( $SD=10.57$ ) (Hogue, 1993),  $M=77.9$  ( $SD=21.4$ ) and  $103.6$  ( $SD=14.1$ ) (Ortet-Fabregat et al., 1993). More recently with larger samples  $M=97.0$  ( $SD=17.9$ ) ( $N=868$ ; Kjelsberg et al., 2007). When the current ATP scores are compared with mean ATMDO scores, it can be concluded that attitudes towards MDOs are at a similar level to prisoners, contrary to previous findings using a semantic differential scale (Kropp et al., 1989).

Within the literature mean ATS scores range between  $M=61.4$  (Johnson, Hughes & Ireland, 2007) to  $M=84.11$  (Nelson, Herlihy, & Oescher, 2002). However, methodologies and populations differ across studies. Care must be taken when assuming accuracy of reported findings as a review of studies utilising the ATS suggested 33% were scored inaccurately (Stirland & Hogue, unpublished). In the development of the ATS-21, Hogue (2015) reports a mean score of  $M=64.15$  for the 36 item version, similar to the original study (Hogue, 1993). When these are compared with the mean ATMDO score, it could be concluded that attitudes towards MDOs (and prisoners) are more positive than attitudes towards sexual offenders.

Furthermore, when sample B's mean ATMDO scores are examined ( $N=50$ ;  $M=99.82$ ,  $SD=15.49$ ) results are comparable with the main sample ( $N=364$ ;  $M=100.96$ ,  $SD=15.33$ ). However, sample A's mean ATMDO scores ( $N=30$ , time-one  $M=105.1$ ,  $SD=11.5$ ; time-two  $M=105.9$ ,  $SD=12.89$ ) although consistent with each other, are slightly higher than those reported for the main sample. This may be attributable to sampling bias regarding assessing test-retest reliability. The

requirement for participants to volunteer to complete the survey twice may have biased the sample to include more altruistic participants, as altruism has been associated with increased volunteering (Haski-Leventhal, 2009). Altruism has been linked with left-wing political attitudes (Zettlera & Hilbig, 2010) and such political affiliations are associated with positive attitudes towards offenders with mental illness (Lambert, Baker, & Ventura, 2008). This limits the ability to generalise findings regarding average ATMDO score from this sample. However, this does not impact upon the validity of the conclusions drawn regarding the scale's test-retest reliability.

Findings regarding gender's impact upon attitudes towards offenders have been inconsistent. The majority demonstrate no impact (e.g. Melvin et al., 1985; Kjelsberg et al., 2007; Ortet-Fabregat & Perez, 1992; Ortet-Fabregat et al., 1993). However, some studies have demonstrated females holding more positive attitudes (Kifer, Hemmes, & Stohr, 2003). These studies may be limited in their focus as they examine gender without the inclusion of gender role identity (Murphy & Brown, 2000).

The current results suggest females hold significantly more positive attitudes towards MDOs. Research demonstrates male CJS professionals are generally more punitive (Chen & Einat, 2015), supporting the current findings regarding attitudes towards MDOs. Additionally, females have been found to be generally more positive towards those with mental illness (Savrun et al., 2007) suggesting the gender difference regarding mental disorder has transferred to offender populations. Although the current sample's gender distribution is weighted towards female participants, this appears reflective of the occupational groups explored when compared to population samples obtained.

This study found no significant relationship between age and attitudes towards MDO. However, older Prison Officers hold more positive attitudes regarding prisoners (Jurik, 1985; Farakas, 1999). However, these studies do not control for service length, which may be a contributory factor regarding attitudes (Maslach & Jackson, 1981). Kjelsberg et al. (2007) found older prisons officers held more positive attitudes towards prisoners. Finally, older individuals held more positive attitudes towards individuals with mental illness (Hayward & Bright, 1999). However, unlike gender, this finding has not translated towards MDOs.

Reports are inconsistent regarding impact of previous correctional work upon attitudes towards prisoners (review by Schaufeli & Peeters, 2000). The current study found no significant relationship between FMH service length and attitudes towards MDOs. This is not as expected, as roles within FMH settings can be considered 'critical occupations' (Paton & Volanti, 1996), a term extended to include 'helping professionals' in addition to the emergency services. These critical occupations have been found to experience high levels of burn-out resulting in cynicism and negative attitudes towards their service recipients over time (Maslach & Jackson, 1981). Early theoretical accounts suggest that occupational idealism and positive attitudes are associated with such burnout, with realism providing necessary resilience (review see Schaufeli & Buunk 2003). However reviews of such research demonstrate mixed empirical support (Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Buunk, 2003), and highlighting some studies actually suggesting idealism may act as a protective factor against burnout (Kirk & Koeske, 1995). However, more longitudinal studies are required (Maslach et al., 2001).

This study found no significant difference between MDO client groups FMHs had experience working with. Bowers et al. (2006) highlight literature demonstrating FMH and CJS staff members' attitudes towards patients diagnosed with personality disorders are generally negative and characterised by pessimism and rejection (review see Dickens, Lamont, & Gray, 2016). Despite sample size ( $n=199$ ), the current study's inability to detect a significant difference may be attributable to reduced power following further subdivision (Field, 2013). Future research may require increased power to observe such an effect.

Findings regarding the positive impact of having a close FFM considered a MDO has upon attitudes can be explained utilising mere exposure theory (Zajonc, 1968). This has been found to be a relatively robust effect (review see Montoya et al., 2017), specifically regarding individuals with mental illness (Addison & Thorpe, 2004; Wolff, Pathare, Craig, & Leff, 1996; Corrigan et al., 2001), supporting this study's findings.

## **PSYCHOMETRIC PROPERTIES**

The ATMDO has good psychometric properties in terms internal consistency for both overall score and sub factors (Nunnally, 1978; Travakol & Dennick, 2011). Following factor analysis general attitudes towards MDOs, as measured by the ATMDO, are comprised of three factors, treatment and management, risk assessment and trust, personal attributes and characteristics. The ATMDO demonstrates test-retest reliability over a two week period (Kline, 1986; Nunnally, 1978) and high convergent validity with the ATP (Melvin et al., 1985). The ATMDO appears to be free of response distortion as measured by a lack of significant correlation with the PDS-IM items (Paulhus, 1991). These robust psychometric properties suggest the ATMDO has merit in the use of assessing attitudes towards MDOs.

Regarding overall ATMDO score, there was a significant difference between FMHP and FMHPP ATMDO scores. It was found that FMHP held the most positive attitudes, followed by GP then FMHPP. These differences are explored further at a factorial level to provide a more nuanced understanding.

FMHP have significantly more positive attitudes than FMHPP regarding treatment and management of MDOs. This may be attributable to responsibilities associated with occupational roles. Generally, FMHP are involved with rehabilitation and treatment programmes, focusing upon facilitating rehabilitation. Whereas FMHPP are responsible for the custodial style management and maintenance of MDOs, as with prison staff (Dvoskin & Spiers, 2004). However, regression analysis suggests gender is the key predictor of attitudes towards treatment and management of MDOs, with females demonstrating more positive attitudes. This is supported by literature highlighted earlier suggesting males within the CJS are more punitive than females (Chen & Einat, 2015).

FMHP hold significantly more positive attitudes than GP regarding risk assessment and trust of MDOs. This may be attributable to the degree of professional training FMHP receive regarding risk assessments (e.g. Practitioner Psychologists' Standards of Proficiencies; HCPC, 2015). GP exposure to MDO rehabilitation prospects may be limited to those publicised by the media which are generally negative (Wahl, Wood, & Richards, 2002) whereas FMHP experience of successful rehabilitation attempts may positively influence attitudes towards MDOs' future

prospects. Regression analysis indicates having a FFM considered a MDO significantly predicts higher scores on factor two (Risk), demonstrating more positive attitudes towards risk assessment and trust of MDOs. Findings regarding professionals working with sexual offenders suggest positive attitudes are correlated with beliefs regarding offenders' ability to desist from criminal behaviour (Blagden et al., 2016) supporting the theory that type of exposure determines attitudes relating to consideration of future risk.

Finally, FMHP and GP hold more positive attitudes regarding personal attributes of MDOs than FMHPP. Occupational exposure to MDOs without the moderating effect of training may negatively impact upon attitudes regarding MDOs' personal characteristics. Regression analysis demonstrates that consideration of training and exposure predicted a slightly higher proportion of the variance than training alone. Those who had received training had more positive attitudes regarding MDOs' personal characteristics than those who did not. Those who had been exposed to MDOs had more negative attitudes than those who had not. However, the additional consideration of having a FFM considered a MDO improved the ability to predict participants' attitudes regarding personal characteristics of MDOs. This suggests that the type of exposure can determine attitude, whether this be more positively through a FFM (as with personal experience of mental illness; Addison & Thorpe, 2004; Wolff et al., 1996; Corrigan et al., 2001), or more negatively through the type of experience gained through professional contact.

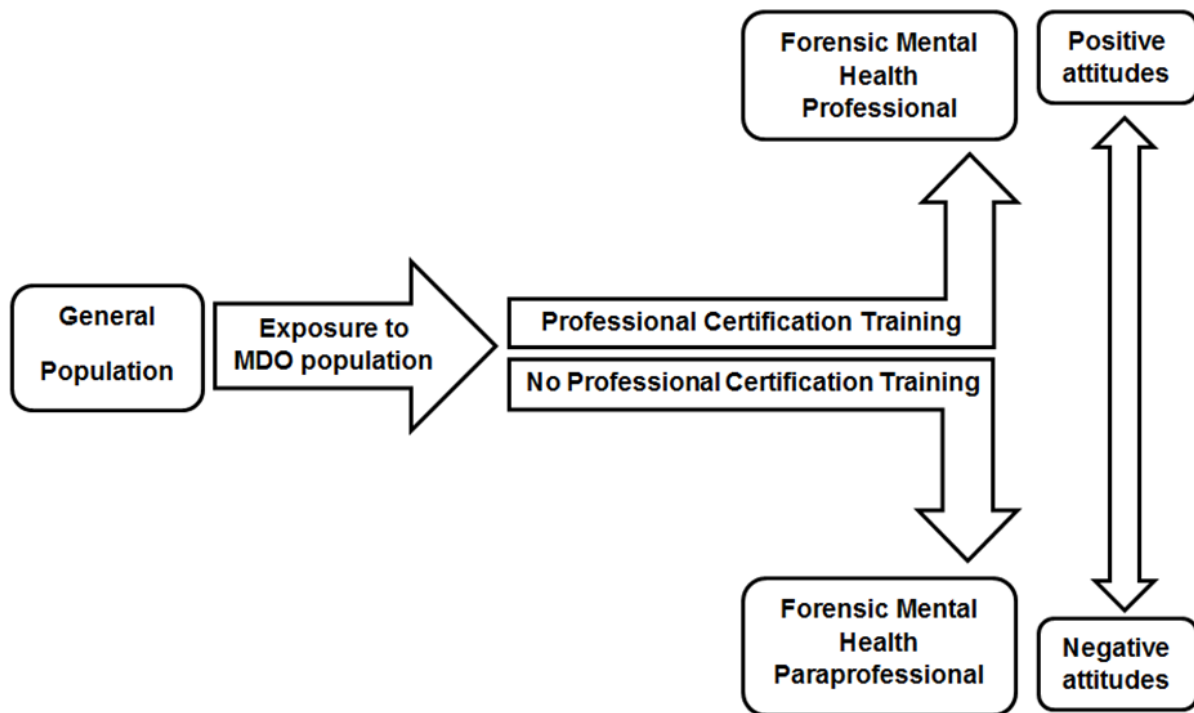
Clinical implications of these findings lie within recruitment and retention of effective FMHPP. Organisations responsible for providing care, treatment, and rehabilitation of MDOs, may benefit from reviewing training policies. This may involve increasing levels of essential training required for recruitment to such positions or development of internal training programmes designed to subsequently improve attitudes towards MDOs. Such attempts have been made regarding sexual offenders, with reported success (Hogue, 1995; Craig, 2005). Hogue (1995) highlights increased belief in treatment efficacy, confidence in own skills, and knowledge required to work with this population following training. However, the subsequent impact upon efficacy of rehabilitation and reoffending rates has not been adequately explored.

Despite both being within FMH, the role of the FMHPP is different from FMHP. FMHP role is generally rehabilitative and treatment focussed, whereas the role of FMHPP is more custodial, as within Prison Officers (Dvoskin & Spiers, 2004). Therefore, the unique interactions with MDOs experienced by FMHPP may have shaped attitudes held towards this population rather than lack of training received. This has been found to be the case regarding staff members' attitudes towards patients with personality disorders (Bowers et al., 2006). This hypothesis builds upon the theory of mere exposure (Zajonc, 1968; review see Montoya et al., 2017), that the nature of the experience with the attitude object determines the impact upon attitude change and formation.

The hypothesis stating there would be two simple effects of exposure and knowledge, did not take into account potential interaction. Results suggest that direct occupational exposure to MDO populations changes attitudes. However, this change is not unidirectional. It can be understood in terms of a moderating effect of knowledge (Ajzen, 2001; Wood, 2000), supported by findings regarding attitude change in offender populations following training (Hogue, 1995; Simon & Arnaut, 2011; in Harper et al., 2017). It can be suggested that the degree of training determines the direction of change, moderating the effect of exposure which acts as a catalyst.

These two occupational related variables can be understood further by reviewing the moderating factors highlighted by Glasman and Albarracín's (2006) meta-analytic review. They conclude attitude accessibility and stability were influential in determining the strength of the attitude-to-behaviour relationship. They suggest that direct exposure increases attitudes' accessibility (exposure) and retention of one-sided information increases stability (training). This has led authors to revise the proposed model (Figure 4.1) regarding occupational characteristics, presented here (Figure 4.3).

Figure 4.3: Revised Attitudes Towards Mentally Disordered Offenders Model



However it should be noted that, informed by findings from regression analysis, key demographic characteristics predict additional variance in ATMDO score, specifically gender and having a friend or family member considered a MDO. These individual characteristics should be considered in addition to occupational related characteristics in future exploration of attitude development and moderation.

### LIMITATIONS AND FUTURE RESEARCH

This research was designed to explore the psychometric properties of the ATMDO. However, it is limited and suggestions regarding further research into the application of this tool are discussed.

Regarding sampling methodology, it should be acknowledged the self-selecting approach may have introduced bias affecting the responses provided. However, positively there are relatively low attrition rates (11.33%). Issues relating to repeated measures may have impacted upon findings relating to supplementary psychometric analysis regarding additional samples. Data from additional subsamples exploring test-retest reliability and response distortion/convergent validity was collected following collection of the main data set. No procedures were in place to ensure participants recruited were not part of the main dataset and



therefore may have included participants who had already completed the survey. Future research should ensure supplementary analyses are either embedded within the main dataset or subsamples collected contain participants belonging to that dataset in isolation.

Research further validating the use of the ATMDO could assess both the convergent and divergent validity of the scale, as construct validity cannot be assumed from convergent validity alone (Western & Rosenthal, 2003). Correlations between ATMDO scores, associated and distinct constructs could be explored. The Big Five Personality Model (Costa & McCrae, 1992) could be employed to assess ATMDO construct validity as has been used within the development of a tool to measure attitudes towards sex offenders (Bogle, 2009).

There are concerns regarding the degree of convergent validity between the ATMDO and the ATP (Melvin et al., 1985). Results suggest the ATMDO and the ATP may measure the same construct. Therefore it could be argued there are few additional benefits to be gained in the development of the ATMDO. However, face validity suggests different applications and object focus.

Furthermore, findings relating to the internal structure of the ATMDO suggest different structure to that reported for the ATP (Ireland & Quinn, 2007). Whilst both comprise a three factor structure, the sub factors' focus appears slightly different. However, there are comparisons which can be made. The Ireland and Quinn (2007) structure of the ATP comprises; interpersonal qualities of prisoners and willingness to engage with them; treatment of prisoners and appreciation of feelings; and excusing behaviour of offenders, and looking towards their futures. Factor one of the ATP (Ireland & Quinn, 2007) is similar to factor three of the ATMDO, focusing upon interpersonal characteristics and attributes of prisoners and MDOs respectively. Factor two of the ATP (Ireland & Quinn, 2007) is similar in part to factor one of the ATMDO, focusing upon treatment and management of prisoners and MDOs. Finally, factor three of the ATP focuses upon future prospects of prisoners and MDOs. However, the ATMDO factor two addresses risk assessment and trust whereas the ATP factor three also focuses upon excusing prisoner behaviours. In summary, there are similarities between ATP and ATMDO structures. However, they do not map directly onto each other and can be argued to explore seemingly different constructs. Additionally when examining the items

which constitute each factor, further difference between the ATP and ATMDO can be seen.

Potential subjectivity issues regarding the heuristic interpretation of factors within the ATMDO should be noted (Field, 2013). There were instances of cross loading (e.g. item 8 loaded on factor one and three). This may impact upon the face validity of interpreted factors. However, item inclusion decisions were based upon the highest factor loading as recommended (Field, 2013).

Despite factor structure examination, this relatively simplistic dialectic view of attitudes potentially does not reflect the complexity of attitudes held towards emotive objects such as offenders (McCorkle, 1993; Demski & McGlynn, 1999). Drawing upon other models within the area of relational security such as the Boundary Seesaw Model (Hamilton, 2010) may influence the current linear hypothesis put forward by the majority of the literature regarding attitudes' influence upon offender management, care, and rehabilitation. Whilst negative attitudes may be associated with potentially abusive behaviours, attitudes which may be considered 'too positive' may also lead to potential abuse. As with the Boundary Seesaw Model (Hamilton, 2010); the two 'black roles' of Abusive Controller and Abusive Carer. This hypothesised 'U-shaped curve' of attitude impact could be the basis for future research.

Discussion has taken place concerning the directionality of the attitudes held by the three occupational groups, in terms of the model proposed. However, care must be taken not to overemphasise these findings, as statistical significance was found only between FMP and FMHPP, whilst no statistically significant differences were found between attitudes held by the GP group and either FMHW occupational groups regarding ATMDO score. Additionally, despite the regression analysis demonstrating some significant results, again caution must be taken not to overemphasise the relatively small explanation of variance found, as results suggest there was substantially more variance unaccounted for by the models proposed. Exploration of additional variables may provide insight into additional variance and potential socio-demographic differences between occupational groups.

There have been limited socio-demographic factors explored within this study; others have been highlighted as affecting attitudes towards certain offending

populations. It is possible that the attitudinal differences found within this study between FMHP and FMHPP may be attributable to socio-demographic differences between these populations. Findings regarding the impact of socio-demographic variables (age, gender and religiosity) upon general punitive attitudes have been found to be inconsistent (Evans & Adams, 2003; Hartnagel & Templeton, 2012). Characteristics such as gender role identity (Murphy & Brown, 2000) and religiosity/spirituality (Chui & Cheng, 2015) have been found to impact upon attitudes towards prisoners specifically. In addition, attitudes towards offenders with mental illnesses have been shown to be affected by ethnicity, academic education level, and political affiliation (Lambert et al., 2008). Exploration of such individual characteristics' impact upon ATMDO score over and above occupational category could be the basis for future validation.

Finally, based upon research suggesting conative components of attitudes' impact upon behaviour (Fishbein & Ajzen, 2010), especially when there is direct exposure to the attitude object (Glasman & Albarracín, 2006) future research could explore the clinical utility of the scale in predicting and subsequently reducing potentially damaging behaviours. Potential outcomes could include the development of the therapeutic relationship (Roth & Fonagy, 1996), belief regarding offenders' ability to change (Blagden et al., 2016), subsequent decision making regarding risk and/or care (Callahan, 2004), or even potentially damaging behaviours (Flynn & Citarella, 2012).

## **CONCLUSIONS AND IMPLICATIONS**

In conclusion, the ATMDO has a three factor structure with high internal consistency across all factors. It demonstrates robust test-retest reliability, high convergent validity with the ATP (Melvin et al., 1985) and is free from response distortion. Females and those with a friend or family member considered a MDO have significantly higher overall ATMDO scores. Although age, length of time in FMH services and type of MDO experienced have no significant impact. Regarding occupational groups, FMHP scored significantly higher than FMHPP regarding overall ATMDO, factor one (Treatment), and three (Personal) scores. FMHP scored significantly higher than GP regarding factor two (Risk) and GP scored significantly higher than FMHPP regarding factor three (Personal). Regression analysis demonstrates the importance of training and exposure in addition to the

demographic characteristics of gender and having a friend or family member considered a MDO in determining ATMDO overall and sub factor scores. These findings suggest further exploration of individual characteristics in addition to organisation factors, may enrich knowledge in this area.

The ATMDO is robust and suitable for application. Future areas to explore include exploration of implicit attitudes, comparison of professional groups or institutions, clinical application within recruitment, retention, and professional training procedures.

As with the sexual offender literature (Harper et al., 2017), interventions designed to increase knowledge, confidence, and attitudes of staff members working with this population could be developed, delivered, and evaluated. Subsequent rehabilitation prospects and reoffending rates should also be taken into consideration to evaluate the longer term impact of attitude change. This is supported by evidence linking successful rehabilitation and reintegration to reduced reoffending rates (Ministry of Justice; MOJ, 2010).

Future development and exploration of this area will inform and support appropriate care, treatment, and rehabilitation of the MDO population.

## **RATIONALE FOR CHAPTER FIVE**

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Chapter four described the development and validation of the ATMDO, which demonstrated robust psychometric properties including internal consistency, reliability, and validity. However, it can be argued there is little clinical utility in examining attitudes as hypothetical constructs in isolation. Chapter five further examines the criterion related validity of the scale, and takes a behaviour observation methodological approach in order to explore the relationship between attitude construction as measured by the ATMDO and observed behavioural manifestation. This was due to the paucity of research focusing upon the relationship between attitudes and observed behaviour within naturalistic settings, specifically regarding those responsible for the care and treatment of MDOs, as well as to further assess the ATMDO.

## **CHAPTER FIVE**

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### **AN EXPLORATORY BEHAVIOURAL STUDY OF FORENSIC MENTAL HEALTH STAFFING GROUPS**

## **ABSTRACT**

### **BACKGROUND**

This study explores the relationship between attitude construction and behavioural manifestation. Specifically the clinical application and criterion related validity of the Attitudes Towards Mentally Disordered Offenders scale (ATMDO) is reviewed. Attitudes and observed behaviours of staff groups across two comparable forensic mental health settings are examined. The hypotheses are based on theory regarding the impact the cognitive components of attitudes have upon behaviours.

### **METHODOLOGY**

The study employs a self-report survey combined with a focal behavioural frequency observation method. It utilises a behaviour observation sheet devised through a review of relevant governmental documentation relating to interacting with MDOs. The study utilises a correlational design, comparing mean ATMDO scores with snapshot observed behaviour frequencies of four forensic mental health staff groups ( $n=3$ ;  $n=4$ ;  $n=8$ ;  $n=4$ ) across three specific time points and locations.

### **RESULTS**

Although no significant correlation was found between total ATMDO score and frequency of either positive [ $r=.17$ ,  $p=.39$ ] or negative behaviours [ $r=.31$ ,  $p=.08$ ], scores on factor one (Treatment) [ $r=.43$ ,  $p<.05$ ] and factor three (Personal) [ $r=.40$ ,  $p<.05$ ] were significantly correlated with frequency of negative behaviours.

### **CONCLUSION**

Although a small study, the findings further validate the ATMDO in terms of potential clinical utility specifically regarding scores on factors one and three. Suggestions regarding theoretical underpinnings may lead to further validation research into the ATMDO's psychometric properties, utility, and applicability within forensic mental health settings.

## INTRODUCTION

There are several definitions of the term 'attitude' (Arnal, 2014). Eagly and Chaiken (1993) highlight the key elements of attitudes as being the "expression" of "a psychological tendency" (p.1). This indicates the importance of attitude demonstration. The nature of attitude manifestation has been explored extensively over the past decade (Bohner & Dickell, 2011).

However, it can be argued there is little clinical utility examining attitudes as hypothetical constructs in isolation without considering the applicability of such research (Glasman & Albarracín, 2006). Methodological and theoretical issues arise when we assume behavioural manifestation from behavioural intent (Fishbein & Ajzen, 2010). It can be argued that tools designed to measure self-reported attitudes measure behavioural intent rather than actual behaviours. Therefore, no conclusion can be drawn regarding the behaviour component of the attitude's construction without direct observation of the behaviour (Fishbein & Ajzen, 2010). Utility is introduced when we attempt to explore the attitude-to-behaviour relationship.

The role played by attitudes within forensic mental health (FMH) settings and the potential impact upon behavioural manifestation has been of interest to researchers, clinicians, and policy makers. This study intends to explore the relationship between attitude construction and behavioural manifestation. It specifically considers FMH staff members' attitudes towards mentally disordered offenders (MDOs). When considering moderating factors highlighted by meta-analysis (Glasman & Albarracín, 2006) it is likely the attitudes of those in contact with the attitude object will influence behaviour, with potentially harmful consequences.

Serious case reviews (Winterbourne View; Flynn & Citarella, 2012; United Kingdom's Department of Health, UK DoH 2012) have demonstrated the negative treatment and even abuse of MDOs within the criminal justice system (CJS) and FMH settings, by those responsible for their care. MDOs' potential vulnerability has been attributed to the nature of their incarceration and risk of attracting negative attitudes both historically and relatively recently (Kropp, Cox, Roesch, & Eaves, 1989; Edwards, 2000; Callahan, 2004; Lavoie, Connolly, & Roesch, 2006; Stier & Hinshaw, 2007). Therefore, there is a requirement to monitor and manage the



attitudes of those in contact with MDOs, due to the need to protect this population from potentially damaging milieus within the CJS, FMH settings, and even the community post release.

Initially, the current study will provide an overview of research and theories which exist regarding attitude construct, which inform the development of this study. Subsequently, an introduction to the current area of exploration is provided, highlighting clinical utility in assessing attitudes towards MDOs within FMH settings.

### **ATTITUDE-TO-BEHAVIOUR RELATIONSHIP**

Within academic circles, multicomponent models continue to be the most influential attitude models (Bohner & Dickell, 2011). It is generally accepted that attitudes comprise three correlating components (Bohner & Dickell, 2011). The Tripartite Model (Rosenberg & Hovland, 1960) is the most prominent of the multicomponent models. The authors propose three consistent attitude elements construct and lead to a single attitude. These three elements comprise affective, behavioural, and cognitive attitudes (known within the model as ABC). Its creators adhere to the consistency principle. This refers to an understanding that all elements of an attitude construct, which combine to form a single factor, are analogous. This principle has formed the basis for exploration of the attitude-to-behaviour relationship and has been utilised within marketing research to better understand consumer behaviours (Stock & Hoyer, 2005).

An early influential study by LaPiere (1934) examined the behavioural application of individuals' discriminatory attitudes after noticing an apparent discrepancy between commonly held prejudices and behaviour. However, despite high ecological validity, subsequent reviews have highlighted methodological limitations with this naturalistic research (Dockery & Bedeian, 1989; Howe & Krosnick, 2017). This led theorists to consider an apparent attitude-to-behaviour gap. This was historically explored by Festinger (1957) who used the term 'cognitive dissonance' to describe this potential conflict. He argued that individuals who experience cognitive dissonance place less value upon either the cognitive or behavioural aspect of the attitude construct. He argues this is done in order to reduce tension resulting in the diverging components. This was termed dissonance reduction. The view therefore, that all components are consistent in forming a

single factor (the attitude), although appearing a sound principle, was thought to be flawed (Howe & Krosnick, 2017).

More recently Ajzen (2001) highlighted considerable variability in the degree to which attitudes predict behaviours, generating consideration of attitude strength variation (review by Howe & Krosnick, 2017). However, assumptions regarding an attitude-to-behaviour gap are based upon potentially outdated, methodologically flawed studies (LaPiere, 1934), and reviews of correlational based research (e.g. Bagozzi, 1981). Conversely, more recent meta-analytic data suggests that although attitudes do not dictate behaviours, they are influential in shaping them (Kim & Hunter, 1993; Kraus, 1995; Webb & Sheeran, 2006; Glasman & Albarracín, 2006).

Glasman & Albarracín's review (2006) concluded that attitudes' accessibility and stability were key moderators in the attitude-to-behaviour relationship. Attitudes more strongly predicted behaviour when participants frequently reported attitudes (stability) and had direct experience with the attitude object (accessibility). The attitude object refers to the entity the attitude is focused upon. This highlights the importance of the attitude object manifestation. Some argue that varying methodologies which purport to be measuring attitudes towards an object are actually measuring attitudes towards its symbolic representation (Bagozzi & Burnkrant, 1979). This may explain the discrepancy between intended behaviour (demonstrated towards a symbolic attitude object e.g. a hypothetical situation) and actual behaviour (demonstrated in the presence of the actual attitude object).

The relationship between attitudes and behaviour is complex. The current models cannot fully explain this relationship satisfactorily (Glasman & Albarracín, 2006). However, meta-analytic research suggests a strong correlation between attitudes held and behaviours displayed (Glasman & Albarracín, 2006). Whether this relationship is analogous (Rosenberg & Hovland, 1960), influential (Bagozzi & Burnkrant, 1979), or multifaceted (Ajzen, 1985) is unclear.

## **CURRENT STUDY**

Despite this extensive theoretical discussion regarding attitude construction, some within the field have turned their attention to the clinical utility of the attitude-to-behaviour relationship. This area of interest is supported by theory which states

that although not a perfect predictive relationship (Hale, Householder & Greene, 2003), it is thought that at least the conative component of attitudes impacts upon behaviour (Fishbein & Ajzen, 2010); a model which is supported by research (Glasman & Albarracín, 2006).

When considering the key moderating factors of accessibility and stability (Glasman & Albarracín, 2006) it is likely attitudes held by FMH staff members will predict behaviour towards attitude objects they are in direct contact with and are required to consider regularly. The current study intends to explore the attitude-to-behaviour relationship within FMH staff members working directly with MDOs.

The Bradley Report (Bradley, 2009) highlights the key role played by “attitudes and perceptions of prison and hospital staff towards mental illness and offenders” (p.105). It was commissioned to address the current issues faced by those with mental health problems and/or learning disabilities within the UK’s CJS. It followed scandal regarding the treatment of vulnerable individuals within CJS and FMH systems (Winterbourne View; Flynn & Citarella, 2012; DoH, 2012).

Research demonstrates that attitudes towards offender populations are resistant to change (Batson et al., 1997), complex, and generally negative (Arnal, 2014). If literature regarding the attitude-to-behaviour relationship is considered as discussed (Glasman & Albarracín, 2006), this highlights the potential for these negative attitudes to lead to damaging milieus within the CJS, FMH settings, and society in general.

In light of these incidents, by monitoring and subsequently improving attitudes, the negative consequences of such attitudes can be minimised. Tools designed to identify attitudes of individuals towards MDOs have utility within organisations such as the CJS and FMH settings. Negative attitudes towards certain client groups have been shown to have detrimental effects upon key elements involved with care, reform, and rehabilitation. This includes beliefs regarding successful rehabilitation potential (Blagden, Winder, & Hames, 2016), decision making regarding risk and/or care (Callahan, 2004), staff members’ reaction (Callahan, 2004), and even interaction styles (Hogue, 1995); all of which can be considered key factors in offender rehabilitation (Blow, Sprenkle, & Davis, 2007).

There are therapeutic and ethical benefits when considering staff members' attitudes towards this population. Identification of those at risk could allow for targeted intervention designed to change negative attitudes held by staff members working with MDOs. More therapeutic environments may be engendered through this approach, producing more successful rehabilitation attempts and less abuse of potentially vulnerable individuals (so avoiding serious case reviews). This approach to changing staff members' attitudes through training has initially been explored within the sexual offender field (Hogue, 1995; Craig, 2005; Malinen et al., 2014) and those working with individuals with personality disorder (Shanks, Pfohl, Blum, & Black, 2011). However, subsequent impact upon the therapeutic milieu and reduction in potential harm has not been sufficiently explored.

Careful consideration must be taken when attempting to design interventions aimed at changing attitudes. Research has demonstrated attitudes towards offender populations can be resistant to change (Batson et al., 1997). Nevertheless, some success has been found regarding the effectiveness of training in changing the attitudes of staff groups involved in the treatment of sex offenders (Hogue, 1995). However, other studies demonstrated little change (Johnson, Hughes, & Ireland, 2007; Kjelsberg & Loos, 2008; Craig, 2005; Malinen et al., 2014). This disparity may be attributable to the length and/or intensity of interventions (review see Harper, Hogue, & Bartels, 2017). Hogue (1995) delivered a three week facilitator training package (including background theory, training in relevant psychological techniques, and treatment information), whilst others only delivered a two day 'awareness' training (Craig, 2005) or social education programmes (Malinen et al., 2014). This suggests such attitudes, although not permanently fixed, may be resilient to such interventions.

In light of the potential attitude negativity, complexity (Arnal, 2014), and resistance to change (Batson et al., 1997), the application of such tools may have additional utility within staff recruitment procedures specifically for roles which have direct contact with MDOs. There are both organisational and moral benefits when considering screening potential employees for such attitudes. Included within recruitment criteria, employees may be able to attract and hire individuals more suited to a role, reducing the potential for damaging milieus, burn-out, and staff turnover. The application of such procedures is within the role of Occupational Psychology and Recruitment Psychologists.

In designing such a tool for application, tools designed to measure self-reported attitudes measure behavioural intent rather than actual behaviours. These factors, although associated, are not synonymous (Ajzen, 1985). Therefore, no conclusion can be drawn regarding the behavioural component of the attitude's construction without direct observation or recording of the actual behaviour. Assessing the validity of a tool designed to measure attitudes examines the association between the tool's outcome measures (attitude) with a concept it is theoretically attempting to measure (behaviour).

The current study assessed the clinical application and criterion related validity of the Attitudes Towards Mentally Disordered Offenders scale (ATMDO) using a behavioural observation technique. There is a paucity of research focusing upon the relationship between attitudes and observed behaviour within naturalistic settings. Examination of attitudes and observed behaviours of staff groups across two comparable FMH settings allows for exploration of the impact of attitudes upon behaviour within such settings. As previously stated, this is supported by the theory that the cognitive component of attitudes may impact upon observed behaviours (Fishbein & Ajzen, 2010; Glasman & Albarracín, 2006).

Humans are social animals who can be influenced by the behaviours of others (Social Learning Theory; Bandura, 1977). The impact of social influences upon group behaviours can include behavioural, environmental, and cognitive factors (such as attitudes), which are shared either directly or indirectly. Within the current study, the decision was taken to assess each staff group as one entity, observing displays of behaviour as representative of that team, due to this basic assumption of social psychology. Associations of such behaviours with team attitudes were drawn due to the collective nature of group behaviours. This organisational approach, whilst it has its limitations, was considered appropriate due to reciprocal determinism; the potential three way interaction between cognitive, behavioural, and environmental factors (Bandura, 1977).

## **HYPOTHESES**

It was hypothesised that higher scores on the ATMDO would be associated with more frequent displays of positive behaviours. Conversely, it was hypothesised that lower scores on the ATMDO would be associated with more frequent displays of negative behaviours.

## METHODOLOGY

*Design:* The study employed a self-report attitude scale in addition to a focal behavioural frequency observation method. It utilised a correlational design.

*Ethical Approval:* This study was reviewed and approved by The University of Nottingham, Faculty of Medicine and Health Sciences Research Ethics Committee (Appendices I and J). Researchers acted under arrangements with the employment organisations (two low secure psychiatric hospitals) and sought permission from relevant authorities.

*Materials:* The attitude scale (the Attitudes Towards Mentally Disordered Offenders scale; ATMDO) was developed by adapting the ATP (Melvin et al., 1985), replacing each reference to 'prisoner' with the term 'mentally disordered offender' creating a parallel scale designed to assess attitudes towards MDOs (Appendix M). Additionally, the ATP initial instruction paragraph was adapted to provide a definition of the term 'mentally disordered offenders'.

A behaviour observation sheet (Appendix S) was devised based upon Martin and Bateson's guidance (2007). Following a review of relevant governmental documentation relating to good practice when interacting with MDOs, a total of 17 focal behaviours were identified. Reviewed documents included DoH publications regarding offenders with learning disabilities (DoH, 2011a), personality disorder (DoH, 2011b) and mental health problems (DoH, 2010). These focal behaviours were included within the observation sheet in addition to guidance regarding potential evidence of such behaviours (Table 5.1).

Table 5.1: Focal Behaviour Catalogue and Behaviour Descriptions for Behaviour Observation Sheet

	<b>Negative Behaviours</b>	<b>Description</b>
1	Confrontational approach	Arguing or hostile tone towards patients
2	Punitive	Punishing unwanted behaviour, removing items/opportunities
3	Inconsistency	Providing conflicting information, treating patients differently for no apparent clinical reason
4	Lack of honesty/transparency	Providing wrong information intentionally, not providing sufficient explanations
5	Deskilling behaviour	Completing tasks for patients not supporting, using phrases such as "let me do it!"
6	Dehumanising	Making generalised comments about patients, phrases like "they all..."
7	Cynicism	Expressing pessimism or sarcasm about progress or situations relating to patients
8	Lack of eye contact during communication	Not fully engaging during conversation, appearing distracted, reading whilst talking
9	Rudeness	Swearing, insulting, offending patients, being sharp or blunt
10	Avoidance	Dismissing or ignoring requests or questions
11	Negative content of communication	Criticising or highlighting patients' mistakes or lack of skill
	<b>Positive Behaviours</b>	<b>Description</b>
12	Facilitating independent activities	Supporting activities such as drinks making, cooking and practical tasks
13	Initiating conversation	Spontaneously speaking to patients, asking patients conversational questions
14	Positive content of communication	Utilising praise and/or validation, reinforcing positive behaviours or skill use
15	Demonstration of empathy	Communicates understanding, showing concern
16	Attempts at de-escalation	Verbally calming situation, encouraging someone to move away from a negative situation
17	Encouraging communication	Offering talk time, encouraging patients to speak about issues

Behavioural observations were conducted by one researcher in real-time. Temporal intra-rater reliability of the behaviour observation sheet was assessed prior to the study. To examine the intra-rater reliability of the behaviour observation sheet, the researcher watched a video clip of a clinical environment, demonstrating behaviours and interactions between FMH staff members and clients. The researcher was required to score observed behaviours utilising the scale. This procedure was then completed one month later and scores were found to be consistent, achieving 90% agreement. This demonstrated sufficient intra-rater reliability (Gwet, 2014).

*Participants:* Participants were recruited through opportunistic forensic mental healthcare employment centres (with a range of MDO client groups including those diagnosed with mental illness, learning disability and personality disorder). Four data collection dates were selected and staff members on shift were identified and contacted via email with invitation to take part along with information regarding the study (Appendix T). This occurred at least two weeks prior to the shift. The researcher attended shift handover in which a summary of the research was given and participants were recruited to attempt to enhance recruitment.

Four staff groups were recruited, containing a total of 19 participants over four shifts ( $n=3$ ;  $n=4$ ;  $n=8$ ;  $n=4$ ). Of the 21 staff members approached, two declined to take part without giving reason (90.5% response rate).

*Procedure:* At start of shift participants were asked to read the information sheet (Appendix T), provide consent (Appendix U) and complete the provided questionnaire which included demographic questions and the ATMDO (Appendix M). They were then asked to continue their shift as usual. Participants were blind to the behaviours being measured.

A zone observational method was utilised to frame the collection of data. An observer recorded the behaviours displayed by all participating staff members at selected locations within the FMH services for a fixed period of time. All observations took place on ward. The observer was situated within two locations, either based within the staff office or in the communal area. This was to ensure diversity of data collection. All observation periods lasted one hour, focusing on the behaviours of between three to eight staff members. There were three



observation periods per shift, and four shifts, creating 12 observation periods in total (Table 5.2). The behaviours of participating staff members were observed, and the actual frequency of focal behaviours (Table 5.1) was recorded using the behaviour observation sheet (Appendix S).

*Table 5.2: Behaviour Observation Schedule and Locations over Shifts*

	<b>Time 1 (60 minutes)</b>	<b>Time 2 (60 minutes)</b>	<b>Time 3 (60 minutes)</b>
<b>Shift 1</b>	Staff Office Handover	Communal Area	Staff Office
<b>Shift 2</b>	Staff Office Handover	Communal Area	Staff Office
<b>Shift 3</b>	Staff Office Handover	Communal Area	Staff Office
<b>Shift 4</b>	Staff Office Handover	Communal Area	Staff Office

## RESULTS

### SCORING

Data was exported from the paper copy surveys and scored using a formula based upon Melvin et al.'s (1985) scoring instructions. The mean ATMDO score was calculated for each staff group. The observed behaviour frequencies across the three time points were totalled for both positive and negative behaviours separately. Due to the unequal participant numbers per staff group in order to ensure comparable scores, the mean frequency per participant was calculated (Table 5.3). This data was then exported into SPSS for analysis.

*Table 5.3: Total and Mean Observed Behaviour Frequencies over Shifts*

<b>Shift</b>	<b><i>n</i></b>	<b>Positive Behaviour</b>		<b>Negative Behaviour</b>	
		<b>Total</b>	<b><i>M</i></b>	<b>Total</b>	<b><i>M</i></b>
1	3	6	2	8	2.67
2	4	3	0.75	5	1.25
3	8	6	0.75	12	2
4	4	6	1.5	2	0.5

### DESCRIPTIVE ANALYSIS

There were 19 participants (63.16% female). The majority of participants ( $n=15$ ; 78.95%) reported they had worked with MDOs diagnosed with a combination of

learning disabilities, mental illness, and personality disorder. One participant (5.26%) had worked with MDOs diagnosed with a combination of learning disability and personality disorder. One participant (5.26%) had worked with MDOs diagnosed with learning disability in isolation, and one (5.26%) with mental illness in isolation. One participant (5.26%) was unsure of the client group they had worked with. One participant indicated they had a close friend or family member considered a MDO (FFM; 5.26%). Descriptive data is presented in Table 5.4 in addition to comparison data taken from chapter four regarding FMHPP sample.

*Table 5.4: Current and Previous Studies' Descriptive Data of Attitudes Towards Mentally Disordered Offender Scale Overall and Sub Factor Scores, Demographic Information, and Mean Positive and Negative Observed Behaviour Frequencies*

	<b>Current Study (N=19)</b>		<b>Previous Study (n=89)*</b>	
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>
ATMDO	96.47	11.48	98.65	16.54
I. Treatment	46.16	5.66	46.91	7.47
II. Risk	28.42	4.96	30.03	7.26
III. Personal	21.89	2.94	21.71	4.33
Age	33.63	9.47		
Length	5.05	3.94		
Positive	1.42	.68		
Negative	1.11	.50		

\* Data taken from chapter four, FMHPP sample

## **EXPLORATORY ANALYSIS**

Due to the small sample size (Field, 2013), non-parametric Kruskal-Wallis tests were run to explore the data.

There was no significant difference regarding the distribution of age [ $H(16,3)=1.22, p=.75$ ], ATMDO score [ $H(16,3)=4.32, p=.23$ ], factor one score (Treatment) [ $H(16,3)=7.43, p=.06$ ], factor two score (risk) [ $H(16,3)=1.45, p=.69$ ], factor three score (Personal) [ $H(16,3)=5.59, p=.13$ ], or gender [ $H(16,3)=2.73, p=.44$ ] between the shifts.

However, there was a significant difference found regarding the length of time staff members had spent within FMH services [ $H(16,3)=.86, p=.04$ ] between

shifts (Table 5.2). Shift one reported the highest mean service length and group two reported the lowest.

Finally, a significant difference was found between shifts regarding the mean frequency of positive behaviours [ $H(16,3)=18.0, p<.001$ ] and negative behaviours [ $H(16,3)=18.0, p<.0001$ ]. Shift one demonstrated the highest mean frequency of positive behaviours followed by shift four and finally shifts three and two (Table 5.2). Shift one demonstrated the highest mean frequency of negative behaviours, followed by shift three, then shift two and shift four the lowest.

### ADDITIONAL ANALYSIS

Due to the small sample size (Field, 2013), non-parametric Kendall's Tau correlation analyses and Mann Whitney U tests were run to analyse the data.

ATMDO score was significantly correlated with factor one, two and three scores. Additionally, although there was no significant correlation between ATMDO score and mean frequency of either positive or negative behaviours, scores on factor one (Treatment) and factor three (Personal) were significantly correlated with mean frequency of negative behaviours. There was also a significant positive correlation between age and length of time within FMH services. (Table 5.5).

*Table 5.5: Correlations (r) of Attitude Towards Mentally Disordered Offender Scale Overall and Sub Factor Scores, Mean Positive and Negative Behavioural Frequencies, and Demographic Characteristics*

	<b>ATMDO</b>	<b>I. Treatment</b>	<b>II. Risk</b>	<b>III. Personal</b>	<b>Negative</b>	<b>Positive</b>	<b>Length</b>	<b>Age</b>
<b>ATMDO</b>	-	.72**	.69**	.61**	.31	.17	.19	.32
<b>I. Treatment</b>		-	.40*	.49**	.43*	.17	.13	.22
<b>II. Risk</b>			-	.40*	.08	.18	.20	.39*
<b>III. Personal</b>				-	.40*	.24	.14	.27
<b>Negative</b>					-	.00	-.21	.1
<b>Positive</b>						-	-.21	.13
<b>Length</b>							-	.35*
<b>Age</b>								-

\* p<.05      \*\* p<.01

There was no significant impact of gender upon ATMDO score [ $U(1,18)=21.0$ ,  $p=.08$ ], factor one score (Treatment) [ $U(1,18)=24.0$ ,  $p=.14$ ], factor two score (Risk) [ $U(1,18)=25.0$ ,  $p=.17$ ], factor three score (Personal) [ $U(1,18)=25.0$ ,  $p=.17$ ], frequency of positive behaviours [ $U(18,1)=25.5$ ,  $p=.17$ ] or frequency of negative behaviours [ $U(18, 1)=37.5$ ,  $p=.71$ ].

## **DISCUSSION**

The findings of this study demonstrate that there was no significant correlation between total ATMDO overall or sub factors scores and frequency of either positive or negative behaviours observed by FMH staff within clinical settings. However, scores on factor one (Treatment) and factor three (Personal) were significantly correlated with frequency of negative behaviours.

The mean overall ATMDO and sub factor scores reported within this study are comparable to those previously found regarding FMHPP groups, demonstrating consistency with previous findings. Regarding alternative scales, the current overall ATMDO means are comparable to those reported for the ATP (Melvin et al., 1985) and slightly higher than the ATS (Hogue, 1993). This supports the suggestion that attitudes towards MDOs (and prisoners) are more positive than attitudes towards sexual offenders.

There are reports of inconsistent findings within the literature regarding the impact of gender upon attitudes towards offenders. The current findings are not supported by the majority of the literature, which reports females generally hold more positive attitudes towards offenders in general (e.g. Melvin et al., 1985; Kjelsberg et al., 2007; Ortet-Fabregat & Perez, 1992; Ortet-Fabregat et al., 1993) and those within mental illnesses (Savrun et al., 2007). This does not appear to have transferred to a MDO population within this study. Although this may be attributable to the relatively small sample size within the current study, an alternative explanation may lie in suggestions put forward by Murphy and Brown (2000) regarding the mediating effect of occupational culture. This specifically relates to staff members' perceived masculinity/femininity and gender role identity upon the relationship between gender and attitudes towards offenders. These factors were not examined within this study and therefore their role as potentially confounding variables within the gender-attitude relationship is unreportable within this study.

The lack of a significant relationship found between age and attitudes toward MDO is supported by findings from Kjelsberg et al. (2007) when exploring attitudes of inmates themselves as measured by the ATP (Melvin et al., 1985). Previous research found older individuals tend to hold more positive attitudes when examining Prison Officers' attitudes towards prisoner populations (Jurik, 1985; Farakas, 1999) or the general population's attitudes towards individuals with mental illness (Hayward & Bright, 1999).

Although there was a significant difference found between the staff groups regarding length of time they had worked with FMH services, this did not impact upon either attitudes towards MDOs or behavioural manifestations. This is in contrast to the literature regarding high rates of staff burnout within such critical occupations (Paton & Volanti, 1996), such as forensic healthcare. The literature suggests such experience can result in cynicism and negative attitudes towards their service recipients (Maslach & Jackson, 1981) over time, which was not apparent within this study.

This effect may additionally be influenced by protective factors (both individual and organisational) which were not examined within this study. These may have included specific role demands (Borrill et al., 1998), and aspects of the work environment (Briner, 2000), in addition to individual characteristics (Zellars, Perrewe, & Hochwarter, 2000). These can be highlighted as potential factors to explore within further research regarding their relation to the correlation and potential causation of negative attitudes and burnout, specifically within longitudinal research (Maslach, Schaufeli, & Leiter, 2001).

The lack of significant correlation between ATMDO score and observed frequencies of positive or negative behaviours displayed, as hypothesised, could be attributable to several factors including theoretical and methodological explanations. These discussions will be addressed respectively. Additionally, directions of future research will be proposed and evaluated.

However, findings suggest attitudes regarding factor one (Treatment) and three (Personal) significantly correlate with observed negative behaviours. This suggests that positive attitudes regarding treatment and management of MDOs and personal characteristics are associated with negative behaviours towards that

population. These results were contrary to expectations. The following hypotheses are proposed in an attempt to better understand and explain these findings.

Contrary to the assumption of a linear model, in light of these results we must consider the possibility of a U shaped curve regarding factors one and three. This is in line with the Boundary see saw model (Hamilton, 2010). Such a model would suggest that extreme positive or negative attitudes regarding treatment and management or personal characteristics of MDOs increase the potential for negative behaviours or even abuse. However, this would not explain the lack of a significant correlation between negative attitudes and negative behaviours. Alternatively, it is a possibility that extremely positive attitudes increase the risk of burn out, with realism acting as a protective factor as has been previously reported within the literature (review see Schaufeli & Buunk, 2003). This burnout process may have led staff to retain the cognitive component of their positive attitude but demonstrate the negative behavioural component of such attitudes, impacting upon their interactions with MDOs. However, some literature suggests that positive attitudes and idealism act as protective factors against burnout (Kirk & Koeske, 1995). An alternative explanation may lie in the suggestion that positive attitudes lead to more staff-client interactions, subsequently increasing the opportunity for demonstrating more negative behaviours. However, this again would not explain the lack of significant correlation between reported positive attitudes and observed positive behaviours.

Despite the uncertainty regarding the relationship direction, these findings can be understood when considering potentially moderating factor involved with the attitude-to-behaviour relationship (Glasman & Albarracín, 2006).

Regarding attitudes relating to treatment and management, the more accessible an attitude is the more likely it is to inform behaviour (Glasman & Albarracín, 2006). FMH staff members are required to consider their treatment and management approaches regularly when working with MDOs due to the nature of their role, as with security personnel within prison services (Dvoskin & Spiers, 2004). This may increase attitudes' accessibility, increasing its impact upon behaviour. However, this would not explain the lack of a significant association found between factor one (Treatment) and positive behaviours.

Regarding attitudes relating to personal characteristics of MDOs, the more stable an attitude is the more likely it is to inform behaviour (Glasman & Albarracín, 2006). FMH staff members may attribute negative personal characteristics to MDO populations as a perceived outgroup, in line with social identity theory (Tajfel & Turner, 1979) and negative attribution bias (Hewstone, Rubin, & Willis, 2002). This potentially serves to strengthen the stability of attitudes as resulting stereotypes tend to be one sided (Hewstone et al., 2002), subsequently increasing the impact upon behaviour (Glasman & Albarracín, 2006). Again however, this would not explain the lack of significant association found between factor three (Personal) and positive behaviours.

The findings regarding factors one (Treatment) and three (Personal) may be used to inform potential interventions designed to mediate attitudes towards MDOs. Such interventions would attempt to decrease the potential for harm and support appropriate care, treatment, and rehabilitation. Interventions designed to increase knowledge regarding sexual offenders through professional training (review in Harper et al., 2017) and social education programmes (Malinen et al., 2014) and patients with personality disorders (Shanks et al., 2011) have been attempted. Current findings suggest interventions designed to reduce negative behaviours towards MDOs by mediating attitudes may benefit from exploring attitudes towards personal characteristics and treatment/management strategies for MDO populations.

The correlation of negative behaviours with factor one (Treatment;  $r=.43$ ) and factor three (Personal;  $r=.40$ ) are comparable to the attitude-to-behaviour correlations found within the literature between  $r=.38$  (Albarracín, Johnson, Fishbein, & Muellerleile, 2001) and  $r=.52$  (Glasman & Albarracín, 2006) suggesting a degree of consistency. However, there is still considerable variation within the literature (Glasman & Albarracín, 2006) ranging from  $-.20$  (Leippe & Elkin, 1987) and  $.73$  (Fazio & Williams, 1986).

The significant correlation between age and factor two score (Risk) suggests that older participants demonstrated more positive attitudes regarding risk assessment and trust of MDOs. This finding is supported by the literature which suggests older individuals tend to hold more positive attitudes towards the general prisoner

population (Jurik, 1985; Farakas, 1999; Kjelsberg et al., 2007) and individuals with mental illness (Hayward & Bright, 1999).

The current findings demonstrate a lack of significant relationship between the ATMDO and sub factor scores and frequency of observed positive behaviours. It can be argued that this relatively simplistic linear relationship does not accurately reflect the association between attitudes towards MDOs and behaviour, as was demonstrated in the present study. As with the Boundary Seesaw Model (Hamilton, 2010); there is potential for a 'U-shaped curve' to better model the impact of extreme attitudes upon potentially abusive characteristics and behaviours. Rather than the assumption that positive attitudes result in positive behaviours and subsequently more positive outcomes for both the attitude subject and attitude object, there is potential for either extreme to result in abusive behaviours. The methodology employed by this study is not able to inspect such an association. In light of this proposed association, there is utility in examining the potential 'U-shaped curve' of attitude impact upon behaviour within future research.

## **LIMITATIONS AND FUTURE RESEARCH**

Although this study was designed to act as an initial exploration into the application and potential clinical significance of the ATMDO instrument, it does have limitations and suggestions have been made regarding future research.

Fundamentally, due to the naturalistic setting of the study and the researchers' inability to manipulate the independent variables in line with the behaviour observation design, specifically regarding the groups' ATMDO scores, potentially a design with reduced effectiveness was created. Despite the rationale for the examination of team attitudes and behaviours as opposed to that of individuals, this design may have decreased the data specificity and limited the generalisability of the findings to specific individuals and the relationship between their attitudes and behaviours. Future research may benefit from employing a methodology designed to identify the relationship between individuals' attitudes and behaviours displayed with larger sample sizes and increased power. Subsequently, conclusions could be drawn upon the relationship between the two factors on an individual basis.



Despite attempts to minimise potential observer effects by familiarising participants to the observer, the impact of being aware of the nature of the research and the act of being observed may have impacted upon participant behaviours. Future research may benefit from a more widespread observation of the ward environment as a whole, either through multiple observers or through use of video recording systems. This was not possible during this study. However, future research employing this technique may increase the ability to accurately monitor and record all displays of key behaviours. The current study was limited due to practical issues such as number of and location of observers whilst using a focal behaviour frequency observation method. A single observer resulted in snapshots of behaviours demonstrated within specific locations during set time points and may not have been representative of behaviours displayed on the ward as a whole.

Due to the nature of the recruitment procedure participants were free to decline to participate or withdraw from the study at any time. This potentially resulted in an unrepresentative, self-selecting sample and caused the results to be skewed towards individuals more comfortable with having their attitudes and behaviours towards MDOs observed and recorded (Field, 2013). However there was a relatively high response rate (90.5%).

Psychometric tools such as the ATMDO measure explicit attitudes and are therefore open to inherent biases such as socially desirable responding. It could be argued that the participants were utilising different attitude-to-behaviour processes when initially completing the ATMDO and demonstrating behaviours when in contact with MDOs due to the nature of the exposure. It can be said that direct contact with MDOs can be considered stressful due to the nature of the population and associated behaviours (Schaufeli & Peeters, 2000). Stress has been thought to influence which attitude-to-behaviour process (automatic or deliberate) is utilised (Echebarria Echabe, 2013). Therefore subsequent behaviour displayed under these conditions may be more reflective of implicit attitudes. Future research could examine whether behaviours demonstrated were more in line with self-reported attitudes as measured by the ATMDO when individuals were placed within stressful situations. However, the ethics of this must be considered.

In order to explore this concept further a more holistic view of attitude construction may need to be produced rather than the dichotomous structure resulting from ATMDO completion. The literature suggests that the attitudes held towards potentially emotive objects such as offenders are highly complex (McCorkle, 1993; Demski & McGlynn, 1999). It can be argued that the relatively simplistic dialectic view of attitudes as obtained by the ATMDO does not reflect this complexity. New methodologies, approaches and even technologies may provide this more detailed construction.

Research techniques such as mock jury methodologies may have clinical utility when we consider their use within existing research. This may allow for exploration of the clinical impact of ATMDO scores upon jury decision making when considering examples of individuals considered to have a mental disorder. This has been explored relating to attitudes towards sexual offenders in sexual abuse cases (Wevodau, Cramer, Gemberling, & Clark, 2016). This goes some way into exploring the clinical utility of such a scale upon real life decisions and actions whilst maintaining a relatively experimental research design.

Previously developed psychometrics assessing attitudes to offender populations have utilised prototypicality analysis to develop a more comprehensive understanding of attitude structure in relation to other potentially related constructs (e.g. ATS; Hogue, Mabbott & Browne, 2016, with the Comprehensive Assessment of Psychopathic Personality; CAPP; Cooke, Hart, Logan, & Michie, 2004). Future research examining the ATMDO structure with related instruments would provide additional evidence relating to the ATMDO's convergent validity.

Research designs such as Implicit Association Tasks may provide a more accurate measure of implicit attitudes (IAT; Greenwald, McGhee & Schwartz, 1998). These can be argued to be less biased by socially desirable responding and may be more representative of the conative component of attitude construction (Kahneman, 2011). Therefore, future research could compare attitudes towards MDOs measured by IATs, with ATMDO scores. This could assess consistency of IAT and self-report measures relating to attitudes towards MDO populations, further validating the ATMDO. Laboratory based experimental methods such as mouse tracking research strategies designed to measure implicit associations between

constructs as have been explored with attitudes towards sexual offenders (Harper & Bartels, 2016).

## **CONCLUSIONS AND IMPLICATIONS**

In conclusion, although no significant correlation was found between total ATMDO score and frequency of either positive or negative behaviours, scores on factor one (Treatment) and factor three (Personal) significantly correlated with frequency of negative behaviours displayed by FMH staff within a clinical setting.

Initial exploration regarding the criterion related validity of the ATMDO demonstrates clinical utility within forensic mental health settings. Examination of factors one and three specifically retains the potential to predict staff members at risk of demonstrating negative behaviours towards MDOs.

As stated, these findings have clinical utility by informing interventions attempting to increase MDOs' rehabilitation prospects whilst decreasing the potential for harm. Interventions may benefit from focusing upon increasing positive attitudes towards management and treatment strategies in addition to personal characteristics attributed to MDO populations.

Following on from this initial exploration, future research may benefit from consideration of further assessment of the ATMDO's criterion related validity and subsequent utility within practice, utilising larger sample sizes or alternative methodologies. The ATMDO may benefit from further exploration regarding its internal structure and the clinical utility of specific sub factors.

Future development and application of the ATMDO will improve knowledge of this area which will subsequently inform intervention to support appropriate care, treatment, and rehabilitation of the MDO population.

## **RATIONALE FOR CHAPTER SIX**

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Chapter six is the final chapter, which synthesises all aspects of the thesis, discussing each chapter's findings in terms of their implications, limitations, and future research. The aims of the thesis are reviewed in light of the findings and conclusions are made, commenting upon future research and application.

## **CHAPTER SIX**

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### **GENERAL DISCUSSION**

## **AIMS**

The overall aim of the thesis was to provide an investigation into the psychometric assessment of attitudes towards mentally disordered offenders (MDO), specifically focusing upon the adaptation and validation of a scale to measure attitudes towards offenders with mental disorders, developed from the Attitudes Toward Prisoners scale (ATP; Melvin, Gramling, & Gardener, 1985) and a systematic review of related tools. The intention was to develop and validate a scale that had clinical utility assessing and monitoring attitudes towards MDOs in the future. The primary aim was to develop a valid tool that can be applied in practice in order to assist interventions targeted at staff to improve their attitudes towards MDOs, to ultimately enhance the care, treatment, and rehabilitation of this population.

## **FINDINGS**

From a review of the literature in chapter one, the importance of being able to accurately assess and monitor attitudes towards offender populations was introduced; specifically, developing the ability to identify and improve negative attitudes within populations at risk. In this way, an attempt to improve rehabilitation, care, and treatment prospects for MDOs can be facilitated. In addition, avoidance of potentially damaging milieus within forensic mental health settings can be minimised and the potential for harm resulting from negative staff attitudes can be avoided. This population is at increased vulnerability due to nature of their incarceration and attraction of relatively negative connotations (Stier & Hinshaw, 2007; Edwards, 2000; Callahan, 2004; Lavoie, Connolly, & Roesch, 2006). Therefore, this thesis is important in attempting to help move the literature forward to help safeguard this vulnerable population.

The systematic review, presented in chapter two, aimed to evaluate the effectiveness of instruments designed to measure attitudes towards prisoner populations in general. This was due to the paucity of literature regarding instruments designed to assess attitudes towards MDOs, as highlighted in chapter one. In order to identify potential instruments suitable for adaptation, instruments developed to assess attitudes towards related offender populations are identified in chapter two. The review set out to specifically explore the focus of existing instruments in terms of prisoner populations, and make comment upon instrument quality and psychometric properties, including measures of reliability and validity.

Following a review of seven publications, the systematic review identified three validated instruments which were designed to measure attitudes towards prisoner populations. Despite the development of one relatively widely used, robust tool (ATP; Melvin et al., 1985), the lack of reliable and valid instruments designed to assess this population as a whole, in addition to specific subpopulations thought to be most at risk, was highlighted.

This is the first systematic review to identify and initially evaluate such instruments. However, due to the search strategy inclusion criteria employed it is open to publication bias. Regardless of this potential bias, the methodology applied ensured all included studies had been peer reviewed through the publication process. Additionally, not all studies identified were obtainable during the review process. This may have caused the review's conclusion to be a misrepresentation of all available instruments published in this field. However, even considering these limitations, this review has highlighted the inadequate amount of high quality research systematically developing and exploring instruments to assess attitudes towards prisoner populations. Attention regarding the treatment of such individuals within secure services continues to increase with the dissemination of such research. This review may assist practitioners and organisations in choosing a suitable tool that may meet their needs.

The psychometric critique, presented in chapter three, was intended to examine the most commonly used tool identified in chapter two, the ATP (Melvin et al., 1985), in detail. It aimed to review the psychometric properties, academic utility, and clinical application (including potential adaptability), within the area of assessing attitudes towards prisoner populations. Specifically, the psychometric properties examined included the internal structure and various measures of validity and reliability.

The critique details that the ATP (Melvin et al., 1985) is relatively short in length. It also retains fairly simple administration and scoring guidelines. It utilises the standard methodology recommended for the subject area of explicit attitudes. It has a relatively robust internal structure replicated within the literature. However, studies are open to criticism regarding lack of statistical power and application of unsuitable analyses to draw such firm conclusions. Alternative factor structures reported within the literature are explored.

Following review, it is concluded the ATP is relatively robust in terms of its psychometric properties, and retains continued application and relevance within wide ranging fields of study. Comment is made regarding evidence of good face and content validity in addition to a lack of response distortion being evident following analysis. Despite the inability to assume good construct validity without the evidence of divergent validity (Western & Rosenthal, 2003), there is strong indication of convergent validity with a range of additional instruments. Good split-half and test-retest reliability is also indicated. Temporal reliability was assessed and reported across a range of time frames.

The authors of the ATP (Melvin et al., 1985) acknowledge the lack of statistical power associated with the supplementary analyses designed to conclude reliability and validity within its original development. However, the conclusions regarding the scale's robust psychometric properties are relatively consistent across several independent studies. Nevertheless, the review emphasises that caution is still required when assuming generalisability of findings.

The critique suggests that the ATP's current construction and methodology may be limited in its ability to comprehensively assess all aspects of attitude construction. This is in light of current multicomponent models of attitudes (Bohner & Dickell, 2011) and research suggesting the complexity of attitudes towards specifically offending populations (Arnal, 2014). Despite this, the critique highlights the potential for future development and adaptation of the ATP to focus on different focal populations, reflecting increased political and media interest in this area. Additionally, there is scope for item reduction following further factor analysis creating the possibility for a shorter, more accessible scale, increasing the potential for clinical utility. Any such developments in light of this review may provide a more accurate and comprehensive method of assessing an individual's true attitudes towards offender populations. This may allow for more accurate generalisation of, and reliance upon, conclusions drawn resulting from future research utilising and adapting the ATP.

The empirical research project, presented in chapter four, adapted the ATP (Melvin et al., 1985) reviewed in chapter three, to develop and validate a scale designed to measure attitudes towards MDOs, producing the Attitudes Towards Mentally Disordered Offenders scale (ATMDO). This is a group relatively neglected in the

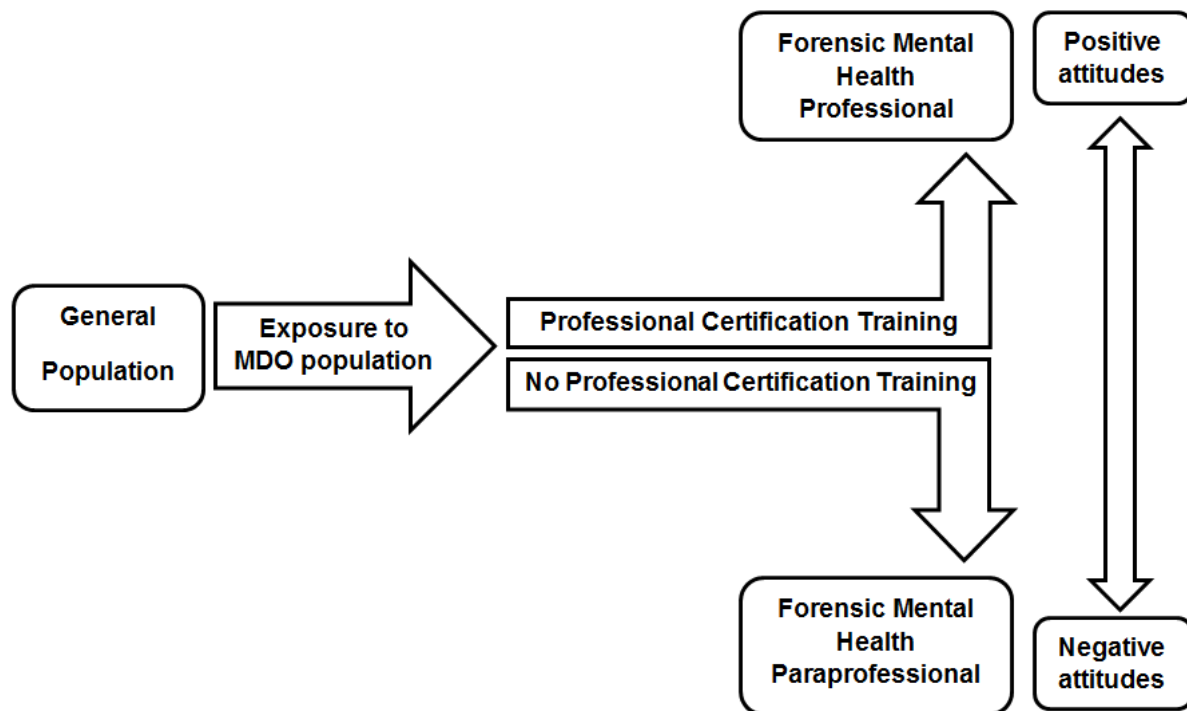


literature on attitude scales as presented in chapter one. The adaptation process was informed by conclusions presented in chapter three regarding limitations in the ATP's development and validation. Specific recommendations included detailed exploration of factor structure and associated internal consistencies, utilising appropriate statistical analysis with sufficiently powered representative samples.

Analysis of the ATMDO demonstrated a three factor structure, excellent internal consistency, good test-retest reliability over a two week period, good convergent validity with the ATP (Melvin et al., 1985), and no evidence of response distortion. Although this study utilises a self-selecting sample, which may introduce some bias into the results, the socio-demographic characteristics captured appeared relatively representative of the occupational groups observed. Taking into account the critique of the ATP development and validation in chapter three, examination of the ATMDO utilised contemporary measures of impression management to assist more reliable comment upon its validity. In summary, the psychometric properties of the ATMDO are relatively robust.

Regarding the more detailed examination of content validity, there was some evidence to support the hypothesised attitudinal differences between occupational groups responsible for forensic mental healthcare, which is supported theoretically. Regression analysis explored the impact of the two independent factors proposed; exposure, and professional certification training. One of the study's strengths lies in its ability to review the hypothesised model explaining the proposed interaction between these identified factors; with exposure acting as a catalyst, and professional training moderating this effect, regarding attitude formation. The revised process model (see reprint Figure 6.1) is presented and discussed in chapter four.

Figure 6.1: Revised Attitudes Towards Mentally Disordered Offenders Model (reprint)



The findings and hypothesised explanations presented have clinical implications for recruitment, retention, and training policies within organisations responsible for providing forensic mental healthcare for MDO. Such implications specifically relate to paraprofessional staff. Attempts to increase the positive attitudes of this population can be targeted towards those identified as at risk of holding extremely negative attitudes towards MDOs, potentially increasing training requirements for recruitment for such positions. This may also involve the development of internal training programmes designed to increase knowledge, understanding, and subsequently improve attitudes towards this population. Such attempts have been made within the field of sexual offenders, with some reported success (for review see Harper, Hogue, & Bartels, 2017). However, the subsequent impact upon efficacy of rehabilitation attempts and reoffending rates should be evaluated, as they have not been adequately explored within the field of sexual offenders. Alternatively, employing screening procedures within recruitment may identify individuals more suited to the role, safeguarding MDO populations.

Despite this study outlining the initial development of the scale with examination of psychometric properties, there is little objective evidence regarding the clinical

significance of the ATMDO's application. Future research discussed within chapter four explores the potential for the association between ATMDO scores and subsequent decision making and behaviours to be examined. This is based upon the theoretical attitude-to-behaviour relationship (Glasman & Albarracín, 2006) and clinical research which suggests that attitudes towards offender populations can influence clinical decision making regarding care and risk (Callahan, 2004) discussed in chapter one. The behavioural observation research project, presented in chapter five, aimed to address this limitation by further exploring the criterion related validity of the ATMDO developed in chapter four in clinical forensic settings. It aimed to employ a more naturalistic methodology to assess the clinical application of the ATMDO and examine the relationship between self-reported attitudes and behavioural manifestation regarding MDOs. Assessment of staff using the scale was conducted, with the researcher conducting behaviour observations on a ward where MDOs were receiving inpatient care.

Initial exploration regarding the criterion related validity of the ATMDO demonstrates potential clinical utility within forensic mental health settings. The lack of significant correlation between ATMDO score and observed frequencies of positive or negative behaviours displayed as hypothesised are discussed in line with theoretical and methodological explanations. However, the significant correlation between frequency of negative behaviours and scores on factor one (Treatment) and factor three (Personal) are explored considering potentially moderating factors involved with the attitude-to-behaviour relationship (Glasman & Albarracín, 2006) identified in chapter one. The implications of findings demonstrating that negative attitudes regarding treatment and management of MDOs and personal characteristics are associated with negative behaviours towards that population are discussed.

Chapter five goes on to highlight the need to target populations identified as being most at risk of holding negative attitudes towards MDO populations. This is due to the relationship between such attitudes and potentially damaging behaviours. Findings can be used to inform intervention content attempting to increase MDOs' rehabilitation prospects whilst decreasing the potential for harm within criminal justice and forensic mental health settings.

Additionally, chapter five contains discussion regarding potential future research possibilities utilising novel methodologies and the development and consideration of more flexible, comprehensive views of attitude construction. Literature suggests that attitudes held towards potentially emotive objects such as offenders are highly complex (Arnal, 2014; McCorkle, 1993; Demski & McGlynn, 1999). It can be argued that the relatively simplistic dialectic view of attitudes as obtained by the overall ATMDO score does not reflect this complexity.

Based upon this, the ATMDO may benefit from further validation applying more experimental methodologies, exploring different populations, more detailed exploration of factor structure, and clinical utility regarding potential impact upon behaviours. Through further development, a more thorough understanding of attitudes towards MDOs and the influential factors can be developed. As highlighted throughout this thesis, more targeted interventions can be applied to help improve attitudes towards those responsible for the care, treatment, and rehabilitation of MDO populations.

## **CONCLUSION**

To conclude, this thesis has achieved its overall aim of developing a validated tool to assess attitudes towards MDOs. This scale has the potential to improve ability to assess and monitor attitudes towards this population. The development of this scale has been achieved through: a systematic review and evaluation of existing instruments designed to measure attitudes towards prisoner populations, a detailed critique and adaptation of an identified, relatively widely used, instrument in the field, a validation study that demonstrated the robust psychometric properties of the newly adapted ATMDO which was developed from the ATP (Melvin et al., 1985), and a behavioural observation study that applied the ATMDO on a ward where MDOs were receiving inpatient care.

The ATMDO will have clinical utility assessing and monitoring attitudes towards mentally disordered offenders in the future. The ultimate aim of this thesis is to inform potential interventions to improve targeted populations' attitudes, in order to subsequently avoid future potential for harm to MDOs, and to improve care, treatment, and rehabilitation prospects for this vulnerable population.

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\*Excluded during systematic review, see chapter two for rationale

## APPENDIX A: SEARCH SYNTAX

Measure <sup>a</sup>	Attitudes <sup>a</sup>	Prisoners <sup>a</sup>
instrument*	judgement*	inmate*
measur*	attitud*	offender*
psychometric*	perception*	criminal*
questionnaire*	perceiv*	forensic*
survey*	belief*	rapist*
tool*	believ*	prisoner*
test*	view*	murderer*
assessment*	opinion*	child molester*
	judgement*	paedophil*
	judgment*	
	viewpoint*	

## APPENDIX B: SEARCH SYNTAX OPERATIONALISATION

---

OVID: PsycINFO (from 1806 to January Week 4 2016, completed on 03rd Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

OVID: Medline (from 1946 to January Week 3 2016, completed on 03<sup>rd</sup> Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

OVID: Embase (from 1980 to 2016 Week 05, completed on 03<sup>rd</sup> Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

Proquest: National Criminal Justice Reference Service (NCJRS) Abstracts Database (from 1975 to 2016, completed on 03<sup>rd</sup> Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

Proquest: Applied Social Sciences Index and Abstracts (ASSIA) (from 1987 to 2016, completed on 03<sup>rd</sup> Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

Web of Science (from 1900 to 2016, completed 03<sup>rd</sup> Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

Cochrane Library (1997 to 2016, completed on 03<sup>rd</sup> Feb 2016)

*(instrument\* OR measur\* OR psychometric\* OR questionnaire\* OR survey\* OR tool\* OR test\* OR assessment\*) AND (judgement\* OR attitud\* OR perception\* OR perceiv\* OR belief\* OR believ\* OR view\* OR opinion\* OR judgement\* OR judgment\* OR viewpoint\*) AND (inmate\* OR offender\* OR criminal\* OR forensic\* OR rapist\* OR prisoner\* OR murderer\* OR molester\* OR paedophil\*)*

## APPENDIX C: INCLUSION EXCLUSION CRITERIA

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### PI/ECO

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<b>Population</b>	Any population
<b>Intervention/ Exposure</b>	The publications included must utilise a tool designed to measure attitudes towards prisoner populations.
<b>Comparator</b>	Not required, although those publications that include a comparator will be included.
<b>Outcome</b>	Statistical analysis of the effectiveness of the measure must be included as an outcome, inclusive of an exploration of psychometric properties e.g. internal consistency, validity and reliability.

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### OTHER

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<b>Publication Type</b>	Only primary studies will be included for example RCTs, cohort studies and case control studies.
<b>Language</b>	No language restrictions will be imposed and attempts will be made to translate findings.
<b>Time Frame</b>	No time restrictions will be imposed.
<b>Exclusion</b>	Grey literature, narrative reviews, editorials, commentaries or any other type of opinion papers will be excluded.

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## APPENDIX D: QUALITY ASSESSMENT FORM

	Yes (2)	Partially (1)	No (0)	Unknown (U)	Comments
<b>Study Design</b>					
Are research aims clearly stated?					
Is design appropriate method to address the aims?					
<b>Selection and Sampling Basis</b>					
Is the sample representative of this population?					
Is an appropriate recruitment method utilised?					
Is an adequate sample size reported following power analysis?					
Are participants appropriate for the analysis conducted?					
Are group sizes equal across all groups?					
<b>Measurement Bias</b>					
Are outcome measures standardised?					
Are assessment procedures the same for all participants?					
Are confounding variables accounted for in design/analysis?					
Is there measure of consistency?					
Is there a measure of validity?					
<b>Results</b>					
Are reasons explained for those refusing to participate?					
Is appropriate statistical analysis used (correctly)?					
Are results clearly reported and in sufficient detail?					
Are limitations discussed?					
<b>Applicability of Findings</b>					
Can results be applied to others in this population?					

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Are any practical implications of the study clearly stated?

**Score**

---

Quality assessment form adapted from the Critical Appraisal Skills Programme (CASP, 2006). Publications were scored as followed in relation to each question:

0=condition not met

1=condition partially met

2=condition fully met

U=unclear/insufficient information provided

## APPENDIX E: DATA EXTRACTION FORM

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### Publication reference

**Name of instrument(s) used?**

**Sample Size?**

**Sample population(s)?**

**Offender population(s)?**

**Factor analysis?** Factor labels/number?

**Reliability** Internal consistency alpha?

Test-retest correlation?

Split-half correlation?

Convergent validity measure?

**Validity** Comparative instrument(s) used?

Discriminant validity measure?

Discriminant instrument(s) used?

Content validity measure?

Groups compared?

Other psychometric property assessed?

**Quality Checklist Score?**

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## APPENDIX F: RELEVANT PUBLICATIONS EXCLUDED

Publication	Reason for Exclusion
Bressington, Stewart, Beer & MacInnes (2011)	Exposure
Burchfield (2012)	Exposure
Carlson & Worden (2005)	Exposure
Chui & Chan (2012)	Exposure
Church, Wakeman, Miller, Clements & Sun (2008)	Exposure
Crisanti, Arboleda-Florez & Stuart (2000)	Exposure
Cumberland & Zamble (1992)	Exposure
Duff, Sakdalan & Vykopal (2006)	Exposure
Eynon, Allen & Reckless (1971)	Exposure
Farnworth, Bennett & West (1996)	Exposure
Freeman, Palk & Davey (2010)	Exposure
Fultz (1989)	Exposure
Haddock, Snowden, Dolan, Parker & Rees (2001)	Exposure
Harper & Hogue (2015)	Exposure
Herzog (2003)	Exposure
Heskin, Bolton & Smith (1973)	Exposure
Humphreys, Kenney-Herbert & Gray (1998)	Exposure
Koon-Magnin (2015)	Exposure
Marinos, V & Innocente (2008)	Exposure
Mattinson & Mirrlees-Black (2000)	Exposure
Moravcova & Tomasek (2014)	Exposure
Murphy & Fedoroff (2013)	Exposure
Nelson, Herlihy, Oescher (2002)	Exposure

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Obata, Hashizume, Wada, Minoshita, Morita & Nakatani (2005)	Exposure
Ortet-Fabregat & Perez (1992)	Exposure
Payton (1977)	Exposure
Pereyra & Moreno (2000)	Publication type opinion/commentary
Saunders (1986)	Exposure
Shackley, Weiner, Day & Willis (2014)	Exposure
Vaughan & Stevenson (2002)	Exposure
Wevodau, Cramer, Gemberling & Clark (2016)	Exposure
Wortley (1996)	Exposure

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## APPENDIX G: DATA EXTRACTION TABLE

Publication	Ireland & Quinn (2007)	Ortet-Fabregat, Perez & Lewis (1993)	Melvin, Gramling & Gardener (1985)	Garbutt & Casey (2015)	Kjelsberg, Hilding Skoglund & Rustad (2007)	Chiu & Cheng (2015)	Jurik (1985)
<b>Instrument(s)</b>	Attitudes Towards Prisoners who Self-harm (APSH)  Attitudes Towards Prisoners (ATP)	Attitudes Towards Prisoners (ATP)	Attitudes Towards Prisoners (ATP)	Attitudes Towards Prisoners who Self-harm (APSH)	Attitudes Towards Prisoners (ATP)	Attitude Towards Prisoners-27 (ATP-27)	Attitudes Towards Inmates
<b>Sample (N)</b>	Vignettes (Well-behaved, WV; Disruptive, DV) Prison Officers (N=162)	Students (N=191) CJS prof. (N=205)	CJS prof. (N=52) Prisoners (N=157) Gen pop. (N=64) Students (N=90)	Prison employees (N=97)	Prisoners (N=298) Prison employees (N=387) Students (N=183)	Students (N=384)	Correctional officers (N=179)
<b>Location</b>	UK	Spain, Catalan	USA	UK	Norway	China, Hong Kong	USA
<b>Offender population</b>	Prisoners who self-harm	Prisoners	Prisoners	Prisoners who self-harm	Prisoners	Prisoners	Inmates
<b>Internal Con.</b>	APSH (N=143) .74 Factor 1 .75 Factor 2 .62 Factor 3 .71 Factor 4 .58 ATP (N=140) .81 WV (N=148) .70 DV (N= 151) .65	Prison rehab teams (N=47) .90 Defence attorneys (N=31) .93 Students (N=191) .95 Law enforcement officers (N=65) .94 Correctional officers (N=62) .95	USA Prisoners	APSH (N=97) .72 Factor 1 .76 Factor 2 .40 Factor 3 .71 Factor 4 .28	Prisoners (N=298) .88 Prison employees (N=387) .91 Students (N=183) .93	ATP-27 Factor 1 .87 Factor 2 .68 Factor 3 .68 Factor 4 .74	.77 to .83
<b>Reliability</b>	<b>Test-retest</b>	ATP .92 (N=74)	ATP (N=40) .82 ATP Students (N=50) .90 Correctional officers (N=56) .84 Law enforcement officers (N=23) .92 Prisoners (N=157) .88 CJS prof. (N=19) .86	APSH (N=75) .79			
<b>Validity</b>	<b>Convergent</b>	WPAI (N=191) -.44**	RDS (N=50) -.3*	SHAS (N=97) -0.79***	Prisoners (N=298) Q1 -.03 Q2 -.22** Q3-.20** Q4 -.08 Q5 -.04 Q6 -.16** Q7 -.20** Q8 -.13		

					Q9 .11 Q10 .14 Q11 -.11 Q12 -.06		
					Prison employees (N=387) Q1 .00 Q2 -.09 Q3-.07 Q4 -.17** Q5 .01 Q6 -.18** Q7 -.20** Q8 -.14** Q9 .19** Q10 -.08 Q11 -.25** Q12 -.55**		
					Students (N=138) Q1 .15 Q2 -.02 Q3-.01 Q4 .00 Q5 .00 Q6 .04 Q7 -.09 Q8 -.10 Q9 .06 Q10 .20** Q11 -.04 Q12 -.28**		
<b>Comparative instrument</b>	Attitudes Towards Prisoners (ATP)	Wilson Patterson Attitude Index (WPAI)	Rokeach Dogmatism Scale (RDS)	Self-harm Antipathy Scale (SHAS)	Questionnaire (12 questions)		
<b>Contrasted groups</b>	Gender: F(1, 142)=14.9***  Vignettes: t(142)=11.2****	F(4,392)=15.72**	F(4,348)=57.99***		Occ. groups F(2,868)=60.3***  Student type F(2,183)=8.46***	Age Factor 1 -.02*** Factor 2 -.00 Factor 3 .01*** Factor 4 .02***	Officer characteristics (r) Minority .13 Female .07 Education .04 Age .14
						Gender Factor 1 .02 Factor 2 .06 Factor 3 -.07 Factor 4 .02	Organisation factors (r) Minimum.07 Months -.14 Contact -.01
						Christian Factor 1 -3.25*** Factor 2 -1.94* Factor 3 1.19*	

						Factor 4 3.20**	
						Buddhist	
						Factor 1 -3.65***	
						Factor 2 -1.07*	
						Factor 3 2.58***	
						Factor 4 4.46***	
						Spirituality	
						Factor 1 -0.38***	
						Factor 2 -0.21	
						Factor 3 -0.29	
						Factor 4 0.20	
						Christian ×	
						Spirituality	
						Factor 1 .05***	
						Factor 2 .03*	
						Factor 3 -.02*	
						Factor 4 -0.05**	
						Buddhist ×	
						Spirituality	
						Factor 1 .06***	
						Factor 2 .02*	
						Factor 3 -.04***	
						Factor 4 -.07***	
<b>Groups compared</b>	Gender (male, female) Vignettes (well-behaved, disruptive)	Prison rehab teams Defence attorneys Students Law enforcement officers Correctional officers	Reform/rehab teams Prisoners Students General pop. Correctional officers Law enforcement officers Marlow-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) - .02 (p>.10) (N=50)		Inmates Prison employees Students (business economics, history, nursing)	Age Gender (male, female) Religion (Buddhist, Christian) Spirituality Religion x Spirituality	Officer characteristics (minority, gender, education, age) Organisational characteristics (security, months employed, contact with inmates)
<b>Other</b>							
<b>Quality score (36 max)</b>	31	24	24	32	27	28	27

\*p< .05, \*\*p<.01, \*\*\*p<.001, \*\*\*\*p<.0001

## APPENDIX H: ATTITUDES TOWARD PRISONERS SCALE

Melvin et al. / ATTITUDES TOWARD PRISONERS 251

### APPENDIX ATP SCALE

The statements listed below describe different attitudes toward prisoners in jails and prisons in the United States. There are no right or wrong answers, only opinions. You are asked to express *your* feelings about each statement by indicating whether you (1) Disagree Strongly, (2) Disagree, (3) Undecided, (4) Agree, or (5) Agree strongly. Indicate your opinion by writing the number that best describes your personal attitude in the left-hand margin. Please answer *every* item.

#### Rating Scale

1	2	3	4	5
Disagree Strongly	Disagree	Undecided	Agree	Agree Strongly

- \_\_\_\_\_ \* 1. Prisoners are different from most people.
- \_\_\_\_\_ 2. Only a few prisoners are really dangerous.
- \_\_\_\_\_ \* 3. Prisoners never change.
- \_\_\_\_\_ 4. Most prisoners are victims of circumstance and deserve to be helped.
- \_\_\_\_\_ 5. Prisoners have feelings like the rest of us.
- \_\_\_\_\_ \* 6. It is not wise to trust a prisoner too far.
- \_\_\_\_\_ 7. I think I would like a lot of prisoners.
- \_\_\_\_\_ 8. Bad prison conditions just make a prisoner more bitter.
- \_\_\_\_\_ \* 9. Give a prisoner an inch and he'll take a mile.
- \_\_\_\_\_ \* 10. Most prisoners are stupid.
- \_\_\_\_\_ 11. Prisoners need affection and praise just like anybody else.
- \_\_\_\_\_ \* 12. You should not expect too much from a prisoner.
- \_\_\_\_\_ \* 13. Trying to rehabilitate prisoners is a waste of time and money.
- \_\_\_\_\_ \* 14. You never know when a prisoner is telling the truth.

- \_\_\_\_\_ 15. Prisoners are no better or worse than other people.
- \* \_\_\_\_\_ 16. You have to be constantly on your guard with prisoners.
- \* \_\_\_\_\_ 17. In general, prisoners think and act alike.
- \_\_\_\_\_ 18. If you give a prisoner your respect, he'll give you the same.
- \* \_\_\_\_\_ 19. Prisoners only think about themselves.
- \_\_\_\_\_ 20. There are some prisoners I would trust with my life.
- \_\_\_\_\_ 21. Prisoners will listen to reason.
- \* \_\_\_\_\_ 22. Most prisoners are too lazy to earn an honest living.
- \_\_\_\_\_ 23. I wouldn't mind living next door to an ex-prisoner.
- \* \_\_\_\_\_ 24. Prisoners are just plain mean at heart.
- \* \_\_\_\_\_ 25. Prisoners are always trying to get something out of somebody.
- \_\_\_\_\_ 26. The values of most prisoners are about the same as the rest of us.
- \* \_\_\_\_\_ 27. I would never want one of my children dating an ex-prisoner.
- \_\_\_\_\_ 28. Most prisoners have the capacity for love.
- \* \_\_\_\_\_ 29. Prisoners are just plain immoral.
- \* \_\_\_\_\_ 30. Prisoners should be under strict, harsh discipline.
- \* \_\_\_\_\_ 31. In general, prisoners are basically bad people.
- \_\_\_\_\_ 32. Most prisoners can be rehabilitated.
- \_\_\_\_\_ 33. Some prisoners are pretty nice people.
- \_\_\_\_\_ 34. I would like associating with some prisoners.
- \* \_\_\_\_\_ 35. Prisoners respect only brute force.
- \_\_\_\_\_ 36. If a person does well in prison, he should be let out on parole.

\*Reverse scored items.

## APPENDIX I: SPONSORSHIP FORM



UNITED KINGDOM · CHINA · MALAYSIA

Research and Graduate Services  
**University of Nottingham**  
King's Meadow Campus  
Lenton Lane Nottingham  
NG7 2NR

Our reference: RGS 15039  
IRAS Project ID: 168109

0115 9515679  
[Sponsor@nottingham.ac.uk](mailto:Sponsor@nottingham.ac.uk)

**NHS Research Ethics Committee**  
**Health Research Authority**

Dr Ruth Tully  
Centre for Forensic and Family Psychology  
Division of Psychiatry and Applied  
Psychology, School of Medicine  
B06 YANG Fujia Building  
Wollaton Road  
Nottingham  
NG8 1BB  
30 April 2015

Dear Chair of the Ethics Committee,

### Sponsorship Statement

#### **Re: An Exploratory Analysis Of A Scale To Measure Attitudes Towards Mentally Disordered Offenders**

I can confirm that this research proposal has been discussed with the Chief Investigator and agreement to sponsor the research is in place.

An appropriate process of scientific critique has demonstrated that this research proposal is worthwhile and of high scientific quality.\*

Any necessary indemnity or insurance arrangements will be in place before this research starts. Arrangements will be in place before the study starts for the research team to access resources and support to deliver the research as proposed.

Arrangements to allocate responsibilities for the management, monitoring and reporting of the research will be in place before the research starts.

The duties of sponsors set out in the NHS Research Governance Framework for Health and Social Care will be undertaken in relation to this research.\*\*

\* Not applicable to student research (except doctoral research).

\*\* Not applicable to research outside the scope of the Research Governance Framework.

Yours faithfully

Angela Shone  
Head of Research Governance  
University of Nottingham





## APPENDIX J: ETHICAL APPROVAL FORM

Direct line/e-mail  
+44 (0) 115 8232561  
Louise.Sabir@nottingham.ac.uk

22<sup>nd</sup> July 2015

Sarah Ashworth  
Doctorate in Forensic Psychology Student  
c/o Dr Ruth Tully  
Assistant Professor in Forensic Psychology &  
Consultant Forensic Psychologist  
Centre for Forensic and Family Psychology  
Division of Psychiatry & Applied Psychology  
School of Medicine  
B06 YANG Fujia Building  
Jubilee Campus  
University of Nottingham  
NG8 1BB



**Faculty of Medicine and  
Health Sciences**

Research Ethics Committee  
School of Medicine Education Centre  
B Floor, Medical School  
Queen's Medical Centre Campus  
Nottingham University Hospitals  
Nottingham  
NG7 2UH

Dear Sarah

**Ethics Reference No:** F18062015 15039 SoM PAPsych – please always quote  
**Study Title:** An exploratory analysis of a scale to measure attitudes towards mentally disordered offenders.

**Chief Researcher/Academic Supervisors:** Dr Ruth Tully, Assistant Professor in Forensic Psychology & Consultant Forensic Psychologist, Centre for Forensic and Family Psychology, Psychiatry and Applied Psychology, School of Medicine

**Other key researchers:** Sarah Ashworth, Doctorate in Forensic Psychology Student, Psychiatry and Applied Psychology, School of Medicine.

**Duration of Study:** 06/2015-12/2015 6mths **No of Subjects:** 261 (18+yrs)

Thank you for your letter dated 14<sup>th</sup> July 2015 responding to the comments made by the Committee and the following revised documents were received:

A scale to measure attitudes towards mentally disordered offenders:

- Participant Information Sheet online Survey Draft 2 Final Version 1.0 14.07.2015
- Participant Information Sheet 2: Observation Draft 2, Final Version 1.0 14.07.2015
- Protocol Draft 2, Final Version 1.0, 14.07.2015
- Social Media Invite, Draft Version 1, Final Version 1.0: 14.07.2015

Previously received:

- FHMS REC Application Form version 1.1, Date: 18.05.2015
- UoN Sponsor Letter, Head of Research Governance dated 30 April 2015
- Evidence of Insurance Henderson, 29 July 2014.
- Protocol Final Version 1.0 date 28.04.15
- Participant Invitation for online survey Final version 1.0, 28.04.2015
- Participant Information Sheet online Survey Final version 1.0: 28.04.2015
- Participant Information Sheet 2: Observation Final Version 1.0: 28.04.2015
- Consent Form Observation Final Version 1.0: 28.04.2015
- Attitudes towards Mentally Disordered Offenders Scale Final Version 1.0, 28.04.2015
- Data Collection Record Sheet for observation study Final version 1.0, 28.04.2015
- CV Dr Ruth Tully, Consultant Forensic Psychologist, April 2015
- CV Sarah Ashworth, Trainee Forensic Psychologist, April 2015

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

Approval is given on the understanding that the Conditions of Approval set out below are followed.

1. You must follow the protocol agreed and inform the Committee of any changes using a notification of amendment form (please request a form).
2. You must notify the Chair of any serious or unexpected event.
3. This study is approved for the period of active recruitment requested. The Committee also provides a further 5 year approval for any necessary work to be performed on the study which may arise in the process of publication and peer review.
4. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely



**Dr Caroline Chapman**  
Acting Chair, UoN Faculty of Medicine & Health Sciences Research Ethics Committee

## APPENDIX K: PARTICIPANT INVITATION

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### Participant Invitation (Draft Version 1 / Final version 1.0: 28.04.2015)

We would like to invite you to take part in our research study which looks at attitudes toward mentally disordered offenders. It is an online questionnaire which shouldn't take more than 20 minutes to complete.

This research forms part of my Forensic Psychology Doctorate (University of Nottingham) and has been reviewed and given favourable opinion by The University of Nottingham, Faculty of Medicine and Health Sciences Research Ethics Committee.

If you'd like to take part please follow the link below.

<https://nottingham.onlinesurveys.ac.uk/attitudes-towards-mentally-disordered-offenders>

Thanks,  
Sarah Ashworth

## **APPENDIX L: SOCIAL MEDIA INVITATION**

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### Social Media Invite

(Draft Version 1v/ Final version 1.0: 14.07.2015)

Hi, please consider taking part in my research study which looks at attitudes toward mentally disordered offenders. It is an online questionnaire which shouldn't take more than 20 minutes to complete. Click on this link for more information  
<https://nottingham.onlinesurveys.ac.uk/attitudes-towards-mentally-disordered-offenders>  
thanks!

**APPENDIX M: ATTITUDE TOWARDS MENTALLY DISORDERED OFFENDERS  
SCALE SURVEY**

**Demographic Information**

<b>Question</b>	<b>Response (please circle if appropriate)</b>
Please specify your gender	<input type="checkbox"/> Female <input type="checkbox"/> Male
Please specify your age (in whole years)	
Please specify your current occupation category	<input type="checkbox"/> Forensic Mental Health - I work with 'mentally disordered offenders' <input type="checkbox"/> General Public - I do not work with 'mentally disordered offenders'
Please specify which job best describes your current role within Forensic Mental Health	<input type="checkbox"/> Healthcare Worker <input type="checkbox"/> Nurse <input type="checkbox"/> Occupational Therapist <input type="checkbox"/> Prison Officer <input type="checkbox"/> Probation Officer <input type="checkbox"/> Psychiatrist <input type="checkbox"/> Psychologist <input type="checkbox"/> Researcher <input type="checkbox"/> Social Worker <input type="checkbox"/> Speech and Language Therapist <input type="checkbox"/> Other
Please specify the length of time you have worked within Forensic Mental Health (in whole years)	
Please specify which category of 'mentally disordered offender' you have experience working with within Forensic Mental Health (please select as many as apply)	<input type="checkbox"/> Mental Illness <input type="checkbox"/> Personality Disorder <input type="checkbox"/> Learning Disability <input type="checkbox"/> Not Sure
Do you have a family member or close friend who could be considered a 'mentally disordered offender'?	<input type="checkbox"/> Yes <input type="checkbox"/> No

**Attitudes Towards Mentally Disordered Offenders Scale**

The statements listed below describe different attitudes towards mentally disordered offenders. The term "mentally disordered offender" to describe a person who has a disability or disorder of the mind and has committed or is suspected of committing a criminal offence. This term covers a range of offences, disabilities and disorders such as mental illnesses, personality disorders and/or learning disabilities. There are no right or wrong answers only opinions. You are asked to express your feelings about each statement by indicating whether you (1) Disagree Strongly, (2) Disagree, (3) Undecided, (4) Agree, or (5) Agree Strongly. Indicate your opinion by ticking the relevant box that best describes your personal attitude. Please answer every item.

**Rating scale**

Questions		1	2	3	4	5
		Disagree Strongly	Disagree	Undecided	Agree	Agree Strongly
1	Mentally disordered offenders are different from most people					
2	Only a few mentally disordered offenders are really dangerous					
3	Mentally disordered offenders never change					
4	Most mentally disordered offenders are victims of circumstance and deserve to be helped					
5	Mentally disordered offenders have feelings just like the rest of us					
6	It is not wise to trust a mentally disordered offender too far					
7	I think I would like a lot of mentally disordered offenders					
8	Bad prison conditions just make a mentally disordered offender more bitter					
9	Give a mentally disordered offender an inch and he'll take a mile					
10	Most mentally disordered offenders are stupid					
11	Mentally disordered offenders need affection and praise just like everybody else					
12	You should not expect too much from a mentally disordered offender					
13	Trying to rehabilitate mentally disordered offenders is a waste of time and money					
14	You never know when an mentally disordered offender is telling the truth					

15	Mentally disordered offenders are no better or worse than other people					
16	You have to be constantly on guard with mentally disordered offenders					
17	In general, mentally disordered offenders think and act alike					
18	If you give a mentally disordered offender respect, he'll give you the same					
19	Mentally disordered offenders only think about themselves					
20	There are some mentally disordered offenders I would trust with my life					
21	Mentally disordered offenders will listen to reason					
22	Most mentally disordered offenders are too lazy to earn an honest living					
23	I wouldn't mind living next door to an ex-mentally disordered offender					
24	Mentally disordered offenders are just plain mean at heart					
25	Mentally disordered offenders are always trying to get something out of somebody					
26	The values of most mentally disordered offenders are about the same as the rest of us					
27	I would never want one of my children dating and ex-mentally disordered offender					
28	Most mentally disordered offenders have the capacity for love					
29	Mentally disordered offenders are just plain immoral					

30	Mentally disordered offenders should be under strict harsh discipline					
31	In general, mentally disordered offenders are basically bad people					
32	Most mentally disordered offenders can be rehabilitated					
33	Some mentally disordered offenders are pretty nice people					
34	I would like associating with some mentally disordered offenders					
35	Mentally disordered offenders respect only brute force					
36	If a mentally disordered offender does well in prison, he should be let out on parole					



## APPENDIX N: PARTICIPANT INFORMATION AND CONSENT SHEET (CHAPTER FOUR)

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### Participant Information Sheet (Draft Version 2 / Final version 1.0: 14.07.2015)

Title of Study: Attitudes towards mentally disordered offenders

Name of Researcher(s): Dr Ruth Tully, Sarah Ashworth

We would like to invite you to take part in our research study. Before you decide, we would like you to understand why the research is being done and what it would involve for you. We ask you to read through the information sheet before deciding whether or not you wish to take part.

#### **What is the purpose of the study?**

We are interested in understanding attitudes towards people who have committed crimes who also have a mental health problem.

#### **Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part we will ask you continue with the study, providing your consent. You must be over 18 to take part in this study.

#### **What will happen to me if I take part?**

In total, the study will take about 25 minutes of your time.

If you agree to take part in this study you will be asked to provide demographic information and be asked to complete a questionnaire

#### **Expenses and payments**

Participants will not be paid to participate in the study.

#### **What are the possible disadvantages and risks of taking part?**

The likelihood of any adverse reactions occurring is very small as you will be asked to complete a questionnaire. You will be asked about people who have

committed a crime who have mental health problems. Criminal offences will not be described to you. The discussion of mental health problems can affect people in different ways and if you feel you may be becoming distressed completing the questionnaire please feel free to withdraw at any point.

### **What are the possible benefits of taking part?**

We cannot promise the study will help you but the information we get from this study may help contribute to our understanding of the perception of people who commit crime who have mental health problems. In the future this could help services work even more effectively in providing appropriate services for this group of people.

### **What if there is a problem?**

If you have a concern about any aspect of this study, you should contact the researchers who will do their best to answer your questions or signpost you to other services. The researchers' contact details are given at the end of this information sheet. 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, School of Medicine Education Centre, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: [louise.sabir@nottingham.ac.uk](mailto:louise.sabir@nottingham.ac.uk).

### **Will my taking part in the study be kept confidential?**

All the information that you provide will be treated in confidence to comply with UK Data Protection Laws. In the event that the results of the study are published, your identity will remain confidential. Members of the research team may look at the information that you have provided to check that the study is being carried out correctly. These members will have a duty of confidentiality to you as a research participant and we will meet this duty. Only members of the research team will have access to your data.

We will follow ethical and legal practice and all information about you will be handled in confidence.

All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database. Any information about you that leaves the hospital/website (depending on where you have been recruited) will be anonymous.

All research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

### **What will happen if I don't want to carry on with the study?**

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far cannot be erased and this information may still be used in the project analysis.

### **What will happen to the results of the research study?**

The results of the study will contribute towards a postgraduate degree, a Doctorate in Forensic Psychology (DForenPsy). It is expected that the results will also be published in scientific journals and presented at conferences.

### **Who is organising and funding the research?**

This research is being organised by the University of Nottingham.

### **Who has reviewed the study?**

This study has been reviewed and given favourable opinion by The University of Nottingham, Faculty of Medicine and Health Sciences Research Ethics Committee.

### **Further information and contact details**

Researcher: Sarah Ashworth	Email: <a href="mailto:lwseash@nottingham.ac.uk">lwseash@nottingham.ac.uk</a>
Supervisor: Dr Ruth Tully	Email: <a href="mailto:ruth.tully@nottingham.ac.uk">ruth.tully@nottingham.ac.uk</a>

### **Consent**

By selecting to continue with the study, I confirm that I have read and understand the information provided for the study.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my legal rights being affected. I understand that should I withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis.

I agree to take part in the above study.

## APPENDIX O: ATMDO SCALE PCA FACTOR LOADINGS (CHAPTER FOUR)

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
<b>1</b>	9.81	27.26	27.26	4.05	11.26	11.26
<b>2</b>	2.26	6.29	33.54	2.90	8.04	19.30
<b>3</b>	1.75	4.86	38.40	2.75	7.63	26.93
<b>4</b>	1.40	3.90	42.30	2.71	7.52	34.45
<b>5</b>	1.34	3.72	46.01	2.07	5.75	40.19
<b>6</b>	1.24	3.46	49.47	1.96	5.46	45.65
<b>7</b>	1.09	3.04	52.51	1.72	4.78	50.43
<b>8</b>	1.06	2.93	55.44	1.53	4.26	54.69
<b>9</b>	1.02	2.85	58.28	1.29	3.59	58.28
<b>10</b>	0.92	2.56	60.84			
<b>11</b>	0.88	2.44	63.28			
<b>12</b>	0.86	2.39	65.67			
<b>13</b>	0.81	2.25	67.92			
<b>14</b>	0.80	2.22	70.14			
<b>15</b>	0.75	2.09	72.23			
<b>16</b>	0.69	1.92	74.15			
<b>17</b>	0.68	1.89	76.04			
<b>18</b>	0.65	1.82	77.85			
<b>19</b>	0.63	1.74	79.60			
<b>20</b>	0.62	1.72	81.31			
<b>21</b>	0.58	1.61	82.92			
<b>22</b>	0.57	1.58	84.50			
<b>23</b>	0.55	1.53	86.02			
<b>24</b>	0.52	1.43	87.46			
<b>25</b>	0.50	1.40	88.86			
<b>26</b>	0.46	1.29	90.15			
<b>27</b>	0.44	1.23	91.38			
<b>28</b>	0.42	1.17	92.55			
<b>29</b>	0.41	1.14	93.69			
<b>30</b>	0.40	1.10	94.78			
<b>31</b>	0.37	1.03	95.82			
<b>32</b>	0.35	0.97	96.79			
<b>33</b>	0.32	0.90	97.68			
<b>34</b>	0.32	0.89	98.57			
<b>35</b>	0.29	0.80	99.37			
<b>36</b>	0.23	0.63	100.00			

## APPENDIX P: ATMDO SCALE PARALLEL ANALYSIS (CHAPTER FOUR)

Component number	Actual eigenvalue from PCA	Criterion value from parallel analysis	Decision
1	9.81	1.65	<b>Accept</b>
2	2.26	1.57	<b>Accept</b>
3	1.75	1.50	<b>Accept</b>
4	1.40	1.46	Reject
5	1.34	1.41	Reject
6	1.24	1.37	Reject
7	1.09	1.33	Reject
8	1.06	1.29	Reject
9	1.02	1.26	Reject
10	.92	1.22	Reject
11	0.88	1.19	Reject
12	0.86	1.16	Reject
13	0.81	1.13	Reject
14	0.80	1.10	Reject
15	0.75	1.07	Reject
16	0.69	1.04	Reject
17	0.68	1.01	Reject
18	0.65	0.98	Reject
19	0.63	0.96	Reject
20	0.62	0.93	Reject
21	0.58	0.90	Reject
22	0.57	0.88	Reject
23	0.55	0.85	Reject
24	0.52	0.82	Reject
25	0.50	0.80	Reject
26	0.46	0.78	Reject
27	0.44	0.75	Reject
28	0.42	0.73	Reject
29	0.41	0.70	Reject
30	0.40	0.68	Reject
31	0.37	0.65	Reject
32	0.35	0.63	Reject
33	0.32	0.60	Reject
34	0.32	0.57	Reject
35	0.29	0.54	Reject
36	0.23	0.50	Reject

**APPENDIX Q: ATMDO SCALE FACTOR LOADINGS VARIMAX ROTATION  
(CHAPTER FOUR)**

<b>Item</b>	<b>Component 1</b>	<b>Component 2</b>	<b>Component 3</b>
31	<b>.72</b>	.22	.19
33	<b>.63</b>	.26	.07
24	<b>.63</b>	.14	.42
35	<b>.62</b>	.01	.26
11	<b>.61</b>	.13	.00
29	<b>.61</b>	.24	.32
28	<b>.59</b>	.25	.19
13	<b>.52</b>	-.04	.33
4	<b>.50</b>	.25	.02
22	<b>.49</b>	.19	.49
32	<b>.46</b>	.43	.17
5	<b>.44</b>	.12	.14
30	<b>.42</b>	.39	.24
8	<b>.35</b>	.20	-.33
15	<b>.32</b>	.31	.11
23	.20	<b>.62</b>	.03
27	.11	<b>.61</b>	.18
20	.08	<b>.57</b>	.13
34	.34	<b>.57</b>	.06
1	-.05	<b>.54</b>	.17
26	.17	<b>.53</b>	.26
7	.28	<b>.52</b>	-.01
6	.04	<b>.52</b>	.45
21	.27	<b>.49</b>	.18
2	.10	<b>.48</b>	-.01
36	.17	<b>.46</b>	.02
3	.29	<b>.32</b>	.31
18	.29	<b>.32</b>	.10
9	.14	.25	<b>.63</b>
25	.44	.18	<b>.59</b>
19	.27	.23	<b>.53</b>
12	.17	.11	<b>.52</b>
14	.03	.36	<b>.52</b>
10	.35	-.04	<b>.47</b>
16	-.07	.43	<b>.44</b>
17	.32	-.03	<b>.44</b>
% of variance explained	15.13	13.13	10.15

## APPENDIX R: ATMDO SCALE FACTOR STRUCTURE (CHAPTER FOUR)

No	Item	Loading
<b><i>Factor one – Treatment and management</i></b>		
<b><i>(15.13% of the variance; eigenvalue 5.45)</i></b>		
31	Most mentally disordered offenders are victims of circumstance and deserve to be helped	.72
33	Mentally disordered offenders have feelings just like the rest of us	.63
24	Bad prison conditions just make a mentally disordered offender more bitter	.63
35	Mentally disordered offenders need affection and praise just like everybody else	.62
11	Trying to rehabilitate mentally disordered offenders is a waste of time and money	.61
29	Mentally disordered offenders are no better or worse than other people	.61
28	Most mentally disordered offenders are too lazy to earn an honest living	.59
13	Mentally disordered offenders are just plain mean at heart	.52
4	Most mentally disordered offenders have the capacity for love	.50
22	Mentally disordered offenders are just plain immoral	.49
32	Mentally disordered offenders should be under strict harsh discipline	.46
5	In general, mentally disordered offenders are basically bad people	.44
30	Most mentally disordered offenders can be rehabilitated	.42
8	Some mentally disordered offenders are pretty nice people	.35
15	Mentally disordered offenders respect only brute force	.32
<b><i>Factor two – Risk assessment and trust</i></b>		
<b><i>(13.13% of the variance; eigenvalue 4.72)</i></b>		
23	Mentally disordered offenders are different from most people	.62
27	Only a few mentally disordered offenders are really dangerous	.61
20	Mentally disordered offenders never change	.57
34	It is not wise to trust a mentally disordered offender too far	.57
1	I think I would like a lot of mentally disordered offenders	.54
26	If you give a mentally disordered offender respect, he'll give you the same	.53
7	There are some mentally disordered offenders I would trust with my life	.52
6	Mentally disordered offenders will listen to reason	.52
21	I wouldn't mind living next door to an ex-mentally disordered offender	.49
2	The values of most mentally disordered offenders are about the same as the rest of us	.48
36	I would never want one of my children dating and ex-mentally disordered offender	.46
3	I would like associating with some mentally disordered offenders	.32
18	If a mentally disordered offender does well in prison, he should be let out on parole	.32

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**Factor three – Personal attributes and characteristics**

**(10.15% of the variance; eigenvalue 3.65)**

9	Give a mentally disordered offender an inch and he'll take a mile	.63
25	Most mentally disordered offenders are stupid	.59
19	You should not expect too much from a mentally disordered offender	.53
12	You never know when a mentally disordered offender is telling the truth	.52
14	You have to be constantly on guard with mentally disordered offenders	.52
10	In general, mentally disordered offenders think and act alike	.47
16	Mentally disordered offenders only think about themselves	.44
17	Mentally disordered offenders are always trying to get something out of somebody	.44

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## APPENDIX S: BEHAVIOUR OBSERVATION SHEET (CHAPTER FIVE)

<b>Observer:</b>				
<b>Date:</b>				
<b>Location:</b>				
<b>Evidence of Negative Behaviours</b>	<b>Count (Frequency)</b>			<b>Present (y/n/no opportunity)</b>
	<b>Time 1:</b>	<b>Time 2:</b>	<b>Time 3:</b>	
Confrontational approach <i>(e.g. arguing or hostile tone towards patients)</i>				
Punitive <i>(e.g. punishing unwanted behaviour, removing items/opportunities)</i>				
Inconsistency <i>(e.g. providing conflicting information, treating patients differently for no apparent clinical reason)</i>				
Lack of honesty/transparency <i>(e.g. providing wrong information intentionally, not providing sufficient explanations)</i>				
Deskilling behaviour <i>(e.g. completing tasks for patients not supporting, using phrases such as "let me do it!")</i>				
Dehumanising <i>(e.g. making generalised comments about patients, phrases like "they all...")</i>				
Cynicism <i>(e.g. expressing pessimism or sarcasm about progress or situation relating to patients)</i>				
Lack of eye contact during communication <i>(e.g. not fully engaging during conversation, appearing distracted, reading whilst talking)</i>				
Rudeness <i>(e.g. swearing, insulting, offending patients, being sharp or blunt)</i>				
Avoidance <i>(e.g. dismissing or ignoring requests or questions)</i>				
Negative content of communication <i>(e.g. criticising or highlighting patients' mistakes or lack of skill)</i>				

<b>Evidence of Positive Behaviours</b>				
Facilitating independent activities <i>(e.g. supporting activities such as drinks making, cooking and practical tasks)</i>				
Initiating conversation <i>(e.g. spontaneously speaking to patients, asking patients conversational questions)</i>				
Positive content of communication <i>(e.g. utilising praise and/or validation, reinforcing positive behaviours or skill use)</i>				
Demonstration of empathy <i>(e.g. communicates understanding, showing concern)</i>				
Attempts at de-escalation <i>(e.g. verbally calming situation, encouraging someone to move away from a negative situation)</i>				
Encouraging communication <i>(e.g. offering talk time, encouraging patients to speak about issues)</i>				

## APPENDIX T: PARTICIPANT INFORMATION SHEET (CHAPTER FIVE)

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UNITED KINGDOM · CHINA · MALAYSIA

### Participant Information Sheet 2 (Draft Version 2 / Final version 1.0: 14.07.2015)

Title of Study: Attitudes towards mentally disordered offenders

Name of Researcher(s): Dr Ruth Tully, Sarah Ashworth

We would like to invite you to take part in our research study. Before you decide, we would like you to understand why the research is being done and what it would involve for you. We ask you to read through the information sheet before deciding whether or not you wish to take part.

#### **What is the purpose of the study?**

We are interested in understanding attitudes towards people who have committed crimes who also have a mental health problem and their relationship with behaviours of staff and patients on ward.

#### **Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part we will ask you sign the consent sheet. You must be over 18 to take part in this study.

#### **What will happen to me if I take part?**

In total, the study will take place over one shift. If you agree to take part in this study you will be asked to provide demographic information, complete a questionnaire and consent to the researcher monitor behaviours on ward.

#### **Expenses and payments**

Participants will not be paid to participate in the study.

#### **What are the possible disadvantages and risks of taking part?**

The likelihood of any adverse reactions occurring is very small as you will be asked to complete a questionnaire and continue your work as normal. You will be asked about people who have committed a crime who have mental health problems. Criminal offences will not be described to you. The discussion of mental health problems can affect people in different ways and if you feel you may be becoming distressed completing the questionnaire please feel free to withdraw at any point.

#### **What are the possible benefits of taking part?**

We cannot promise the study will help you but the information we get from this study may help contribute to our understanding of the perception of people who commit crime who

have mental health problems. In the future this could help services work even more effectively in providing appropriate services for this group of people.

### **What if there is a problem?**

If you have a concern about any aspect of this study, you should contact the researchers who will do their best to answer your questions or signpost you to other services. The researchers' contact details are given at the end of this information sheet. 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, School of Medicine Education Centre, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: [louise.sabir@nottingham.ac.uk](mailto:louise.sabir@nottingham.ac.uk).

### **Will my taking part in the study be kept confidential?**

All the information that you provide will be treated in confidence to comply with UK Data Protection Laws. In the event that the results of the study are published, your identity will remain confidential. Members of the research team may look at the information that you have provided to check that the study is being carried out correctly. These members will have a duty of confidentiality to you as a research participant and we will meet this duty. Only members of the research team will have access to your data.

We will follow ethical and legal practice and all information about you will be handled in confidence.

All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database. Any information about you that leaves the hospital/website (depending on where you have been recruited) will be anonymised and will have a unique code will be used so that you cannot be recognised from it.

All research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

### **What will happen if I don't want to carry on with the study?**

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far cannot be erased and this information may still be used in the project analysis.

### **What will happen to the results of the research study?**

The results of the study will contribute towards a postgraduate degree, a Doctorate in Forensic Psychology (DForenPsy). It is expected that the results will also be published in scientific journals and presented at conferences.

### **Who is organising and funding the research?**

This research is being organised by the University of Nottingham.

**Who has reviewed the study?**

This study has been reviewed and given favourable opinion by The University of Nottingham, Faculty of Medicine and Health Sciences Research Ethics Committee.

**Further information and contact details**

Researcher:	Sarah Ashworth	Email:	lwxseash@nottingham.ac.uk
Supervisor:	Dr Ruth Tully	Email:	ruth.tully@nottingham.ac.uk

## APPENDIX U: PARTICIPANT CONSENT SHEET (CHAPTER FIVE)



### CONSENT FORM

(Draft Version 1 / Final version 1.0: 28.04.2015)

**Title of Study:** Attitudes towards mentally disordered offenders

**REC ref:** F18062015 15039 SoM PAPsych

**Name of Researcher:** Dr Ruth Tully, Sarah Ashworth

**Name of Participant:**

**Please initial box**

1. I confirm that I have read and understand the information entitled Draft Version 2 / Final version 1.0: 14.07.2015 for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without legal rights being affected. I understand that should I withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis.
3. I understand that relevant data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group and regulatory authorities where it is relevant to my taking part in this study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential.
4. I understand that behaviours will be recorded and may be used in the study reports.
5. I agree to take part in the above study.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Person taking consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

2 copies: 1 for participant, 1 for the project notes