

THE IMPORTANCE OF OFFENDER MOTIVATION IN VIOLENCE REDUCTION TREATMENT

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**Thesis submitted to the University of
Nottingham for the degree of Doctor in
Forensic Psychology (DForensPsy)**

May 2017

ABSTRACT

The following academic thesis explores the links between offender motivation and violence reduction treatment for adult male offenders, with a focus on those with a mental illness. The thesis begins with a systematic review of the literature regarding the impact of motivation on interventions aimed at reducing violence and aggression. The majority of reviewed studies provided tentative support for the theory that individuals with higher levels of motivation stay in treatment longer and have better treatment gains regarding violence reduction. The following chapter includes an empirical study investigating the impact of Stage of Change, as measured by the Transtheoretical Model (Prochaska & DiClemente, 1982), on the outcome of treatment. The focus of this study was the Violent Offender Treatment Programme (VOTP), designed for mentally disordered offenders, and its application within a High Security and a Medium Security hospital. The programme itself was found to be effective in reducing violence outcomes, however there was little support for the Stages of Change model as a form of categorising those who were more likely to improve. Chapter 4 then presents a Case Study of an adult male offender, with a diagnosis of Delusional Disorder, in order to ascertain whether the VOTP could be adapted for individual use. Case study results were not clinically significant but are discussed in light of current research and forensic practice. A critical appraisal of the Violence Risk Scale (Wong & Gordon, 1998-2003) is then presented in Chapter 5, due to this being a primary risk assessment tool referred to throughout the doctoral works. The thesis concludes with a chapter summarising the key points and involving a reflective element by the author.

ACKNOWLEDGEMENTS

Firstly, I would like to say a huge thank you to my University Supervisors, Professor Vince Egan and Dr Ruth Tully. Both have given me an incredible amount of quality advice and guidance over the last two years, and it is thanks to them that my research skills have developed as they have. I particularly appreciate their continued patience when they have both had so many other responsibilities and demands on their time.

A particular debt of gratitude is owed to my mum, Caryl Lockley, my stepdad Andrew Lockley, and my partner Matthew Williams. The support and encouragement they provided throughout the Doctorate was the key to me completing the course successfully. I am truly thankful for their tolerance during this period and their belief in my abilities as both a researcher and a practitioner.

Further gratitude is owed to Sharon Howden (Forensic Psychologist and Clinical Lead at Wathwood Hospital) and Dr Louise Braham (Forensic and Clinical Psychologist at Rampton Hospital). Both Sharon and Louise provided essential advice and guidance regarding my primary research project, as well as acting as placement supervisors. Their help and guidance was extremely valuable and enabled me to complete a difficult project, and a challenging degree, in a professional manner.

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CHAPTER 1

INTRODUCTION

The overarching aim of this thesis is to explore the relationship between motivation to change and violent offender treatment. Within the field of psychology there has been considerable ambiguity about the true meaning of motivation (Drieschner, Lammers & Van der Staak, 2004), especially within offender populations. This has led to a lack of consensus in how to define, assess, and measure the concept. Terms such as readiness, motivation, and compliance are regularly used interchangeably. Readiness to change has been defined as the specific characteristics of the offender or the therapeutic situation that are likely to promote engagement and enhance the likelihood of therapeutic change (Howells & Day, 2003). Ward, Day, Howells, and Birgden (2004) also make the distinction between an offender being ready for treatment and being motivated to participate. They highlight that the concept of motivation implies a desire or willingness to change on the part of the offender, the assessment of which can be heavily dependent on the judgement of professionals. They argue that readiness on the other hand incorporates both individual and environmental factors enabling a more comprehensive and inclusive conceptualisation of the issue. This thesis will focus primarily on motivation to change behaviour, however other concepts, such as readiness and motivation to engage in treatment, will also be covered in less detail. Here, motivation is conceptualised as: "factors that activate, direct, and sustain goal-directed behaviour" (p.288, Nevid, 2013).

The second chapter of this thesis provides a systematic review of the literature which highlights numerous inconsistencies when defining and measuring motivation. The review provides a more detailed overview of the concept of motivation and the variety of interpretations of the construct. Chapter 2 also outlines the current evidence for the importance of motivation and readiness, both prior to and during treatment engagement. However, results revealed little consistency

within the reviewed literature regarding the definition and measurement of motivation to change. To date, no other systematic reviews exist which explore the relationship between motivation and changes in violence following treatment.

It may appear common sense that an individual would need to be motivated in order to both participate in, and benefit from, treatment that reduces their risks of reoffending. It is therefore, not unsurprising that engaging offenders in treatment and enhancing their motivation to change are some of the primary challenges currently faced by forensic professionals (McMurrin, 2002). A large body of research exists around the importance of treatment completion in reducing recidivism. Facilitating participation in effective treatment can therefore be seen as a matter of public safety (Kroner, Power, Takahashi & Harris, 2014). Loza, Conley, and Warren, (2004) noted that violent offenders have a higher rate of reconviction than non-violent offenders, making participation in treatment even more vital. Yet, violent offenders generally require additional support to be ready to 'benefit' from an intervention (Ware, Cieplucha, & Matsuo, 2011). Despite the distinct challenges of working with this population the interventions currently available have yielded promising results when assessed for effectiveness (Jolliffe & Farrington, 2007). A programme that receives specific focus within this thesis, in Chapters 3 and 4, is the Violent Offender Treatment Programme (VOTP). Attention is given to this programme because it is one of very few interventions available which is designed specifically for offenders with a mental illness. This thesis takes a particular interest in mentally disordered offenders because there is a growing population of mentally unwell individuals within the Criminal Justice System (Sainsbury Centre for Mental Health, 2009). Furthermore, the associations between mental illness and violence are also widely recognised (Lund et al., 2013) and therefore additional research into appropriate treatments for this cohort is essential.

It is not enough, however, to simply prescribe change or dictate to offenders that engagement in treatment is necessary (Viets, Walker, & Miller, 2002). There remains a need to encourage participation in the

intervention, ensure that attendance is consistent, enhance active engagement, and promote the implementation and maintenance of the skills taught (McMurrin, 2002). In order to evidence this theory and further explore the intricacies of engagement within violent offender treatment it was necessary to conduct a case study approach. In Chapter 4 the VOTP is therefore adapted to an individual format in order to explore the impact of violence treatment directly. A key lesson learnt within the case study was that attempting to engage individuals in therapy before they are ready to do so, or encouraging the use of preventative techniques with those who are yet to contemplate change, is unlikely to yield the desired outcomes (Maden, Williams, Wong & Leis, 2004). Clinical implications regarding the adaptation of a group therapy to an individual format were also highlighted from this study. These implications are discussed further in relation to treatment integrity.

It is further argued that the assessment of motivation within offender populations should also be specific to their criminogenic needs (Howells, & Day, 2002). This point is highlighted within Chapter 5, where a critique of the psychometric properties of the Violence Risk Scale (Wong & Gordon, 1998-2003) is provided. The VRS is a violence risk assessment which assesses the impact of treatment using offender motivation as an indication of change. The authors argue that assessment and treatment are strongly integrated within this tool (Wong & Gordon, 2006). The critical appraisal in Chapter 5 adds a more objective view of the VRS in light of the largely author-led evidence base. Overall, the influence of motivational readiness amongst offenders appears to have a varying impact on engagement and outcome in terms of the treatment of violence. Much depends upon the conceptual and theoretical approach taken to motivation and the responsivity of risk reduction interventions.

CHAPTER 2

A Systematic Review of the Importance of Motivation in Violence Reduction Treatment for Adult Male Offenders

ABSTRACT

Motivating offenders to engage in treatment and subsequently to change their behaviour is one of the primary challenges faced by forensic professionals. Many researchers have highlighted the importance of offender motivation in reducing recidivism in a range of criminal behaviours. The reduction of violence and the development of effective treatment for violent offenders has also been an increasing area of interest. However, to date there has not been a systematic review of the literature to determine whether motivation is actually required in order for violent offenders to engage in treatment and to demonstrate change as a result. This review therefore aims to explore these issues in more depth. From an initial 1,104 papers collected, 12 studies met the inclusion criteria and were deemed methodologically robust. Results were mixed in regards to the impact of motivation. In general, studies employing the Transtheoretical Model of change found that higher stages of change predicted treatment completion and improvement in desired behaviour. However, studies varied considerably in methodology, definition and measurement of motivation, and the outcomes they recorded. The conclusion is drawn that clarification of the conceptualisation of this construct is essential, if we are to move forward in ascertaining why some offenders change their violent behaviour and others do not. Synthesised results are discussed in light of current and future research and practice.

2.1. INTRODUCTION

Low levels of motivation in offender populations have been found to lead to refusal to engage in interventions, non-completion of treatment, and poor treatment outcome for those who do participate (McMurran, 2002).

In light of these difficulties, offender motivation has been conceptualised in a number of ways and various models have been developed to explain why some individuals have a desire to take action and others do not. In this sense, the rehabilitation of offenders with a violent history is no different. However, evidence indicates that this population is more difficult to engage in treatment (Day, Howells, Casey, Chambers & Birgden, 2009). Chambers, Eccleston, Day, Ward, and Howells (2008) suggest that this may be because violent individuals hold certain primary and secondary cognitive distortions about their offending, which can impede treatment "readiness". Readiness is one concept that is commonly used to differentiate individuals prior to psychological, or therapeutic, treatment. It is argued that several factors can influence an individual's readiness to change and Viets et al. (2002) suggest that as well as being ready, offenders should also be "willing and able" to change. Furthermore, there may be factors specific to the type of treatment of treatment offered that influence willingness to engage, e.g. sex offender treatment (Brown & Tully, 2014).

Ward et al. (2004) thus proposed the Multifactor Offender Readiness Model (MORM). The model suggests that offenders are more likely to be ready to change if they possess certain emotional, cognitive, volitional, and behavioural properties, as well as living in an environment where these changes are conceivable and supported. Another common theoretical interpretation of motivation is the Stages of Change or Transtheoretical Model (TTM; Prochaska & DiClemente, 1982). This model was developed to explain the process of change that an individual goes through regarding addiction. The model has since been applied to many other problem behaviours, including violence (e.g. Alexander, Morris, Tracy, Frye, 2010). The authors of this model recognise that movement between stages is a natural part of the process and that individuals undertaking the same intervention may be at different stages of change. Those in the later stages of the model are often seen to be more ready for treatment and therefore more likely to benefit from it (Connors, DiClemente, Velasquez & Donovan, 2013).

There has also been a dualistic approach to the concept of motivation, further dividing it into the categories of intrinsic and extrinsic motivation. The first refers to the individual's self-driven desire to take action for their "own sake" (Bénabou & Tirole, 2003) or reasons relating to their personal growth. Whereas extrinsic motivation refers to the external influences on an individual's decision making and often involves the pursuit of an instrumental goal for the individual. One of the difficulties of working with offenders in forensic services is that external incentives and situational demands are a fundamental part of progress. Therefore, it can often be difficult to determine whether an individual who is subject to such influences is also internally motivated to change, especially when they have few opportunities to demonstrate maintenance or the behaviour is externally controlled (DiClemente, Schlundt, & Gemmell, 2004). The ambiguity surrounding the meaning of motivation can make it difficult to find an accurate or consistent measurement of the concept. Each approach has its benefits and limitations. This systematic review therefore endeavours to incorporate a range of conceptualisations of motivation in an attempt to represent the nature of current research.

From a scoping search of the review literature, it was clear that the systematic and meta-analytical reviews that are available currently are concerned with the general efficacy of violent offender treatment, rather than the characteristics of individuals who complete such interventions (e.g. McGuire, 2008 or Lipsey, & Cullen, 2007). Interventions that have demonstrated the largest effects in reducing re-offending rates have been those that follow the risk, need, and responsivity principles (Andrews & Bonta, 2010). These principles were developed by Andrews, Bonta, and Hoge (1990) and form the basis of the Risk, Need, and Responsivity (RNR) model of treatment efficacy. In brief, these principles state that the most successful interventions are those that are directed at high risk offenders, take into account the specific needs of the target population, and are responsive to their characteristics and learning styles. In their meta-analysis of studies that applied these principles Andrews, et al. (1990) reported that these 'appropriate' studies were associated with a 30% reduction in recidivism. Correctional interventions specifically

designed for violent offenders are also said to be more effective at reducing violent recidivism when they meet the RNR principles (Dowden & Andrews, 2000). A significant amount of research has since focussed on the effectiveness of violent offender treatment and many programmes now seek to adhere to the principles of the RNR model.

A review by Jolliffe & Farrington, (2007) concluded that interventions for violent offenders are effective at reducing both violent and non-violent re-offending. The studies that produced the biggest effect sizes varied regarding methodology, treatment style, and treatment dosage. Those with a longer duration appeared to be linked with greater reductions in recidivism as were those that employed certain theoretical approaches such as relapse prevention or cognitive skills. Despite the utility of these findings and the broad search criteria, the authors were only able to obtain 11 reports that were of a high methodological standard, indicating a paucity of quality evaluations. Thus, when offenders do not complete treatment that has been demonstrated to reduce the risk of recidivism there can be significant implications for both the welfare of the public and the individual. In a recent meta-analysis, Olver, Stockdale and Wormith (2011) also found that motivation was a significant predictor of attrition rates. In the majority of studies dropout from treatment was subsequently associated with higher rates of recidivism.

Other reviews available, such as that by McMurran (2009), report on the effectiveness of particular motivational techniques (e.g. Motivational Interviewing; Miller & Rollnick, 1991) but are not specific to violent offender populations. Moreover, the majority of other observational studies incorporate young offender samples, or are focussed entirely on the reduction of sexual offending. Others are specific to intimate partner violence (e.g. Sartin, Hansen & Huss, 2006), and more recently to female offenders (e.g. Bartlett et al., 2015). There has not been a systematic review of the literature that establishes whether motivation is a necessary factor in the rehabilitation process for violent male offenders. Ascertaining whether individual motivation (and degree of motivation) is directly associated with positive treatment outcomes will allow

researchers and practitioners to design and implement more effective interventions.

2.1.1. Aims and Objectives

This review aims to establish whether motivation is an important prerequisite to change for offenders who participate in treatment aimed at reducing violence and aggression.

1. To clarify whether individuals with higher motivation benefit more from violent offender treatment than those with lower or no motivation.
2. To determine whether motivation is a better predictor of treatment outcome for violent offenders than other non-motivational factors.
3. To examine how motivation prior to treatment affects engagement in interventions and levels of attrition for violent offenders.
4. To describe and assess the breadth and quality of treatment literature in this area as well as offering recommendations for future research.

2.2. METHOD

2.2.1. Search Strategy

To identify studies that adhere to the selection criteria a search was conducted between March 2015 and August 2015 the following sources were searched.

- a) Electronic Databases: PsycInfo; PsycExtra; ERIC; MEDLINE; Web of Science; EMBASE; Applied Social Sciences Index and Abstracts (ASSIA); ERIC; Cochrane Library; Campbell Library; and National Criminal Justice Reference Service (NCJRS). Only papers produced after 1990 were reviewed due to this being the beginning of the “what works” (McGuire, 1995) period in offender rehabilitation literature and this therefore signalling expansion of the research in this field.

- b) Searches were performed on databases such as Social Care Online, Open Grey, and in the library resources of the University of Nottingham to include grey literature and academic theses.
- c) Journal articles, book chapters, and reports from government agencies or other institutions were included.
- d) Emails were also sent to 6 relevant authors in order to request unpublished manuscripts.
- e) The reference lists of five journals articles and three systematic reviews were hand searched for relevant citations. No limits on country or language were set.
- f) Initial hits were retrieved from the following search engines: Google; GoogleScholar and Bing.

Search terms included a combination of the following: motivation; readiness, stage of change; attrition; drop out; violen*; offen*; aggression; treat*; program*, a full list of search terms can be found in Appendix A. Inclusion criteria were applied to the identified references and the included studies were quality assessed, using pre-defined criteria, prior to data extraction and synthesis. Existing reviews and meta-analyses of interventions for violence prevention were excluded, as were any duplicate articles discovered during the search. Theoretical or opinion papers were not classed as empirical research, due to their lack of a specific sample, and therefore were not included.

2.2.2. Inclusion/Exclusion Criteria

Population: The population consisted of adult male offenders in a range of secure and community settings, all of whom were 18 years of age or over. Studies were included where over half of the sample were violent offenders. Initial scoping revealed that there were not enough studies recorded with mentally disordered offenders alone to conduct a comprehensive systematic review. Offenders without a mental illness, are therefore also included. No restrictions are placed on the language of the articles or on the ethnicity of participants.

Intervention: The intervention, in this context, is motivation prior to violent offender treatment. Studies that compared one intervention condition to another or to a 'no treatment' condition were only included if motivation was assessed prior to treatment, and outcomes were reported regarding the impact of motivation. Motivation was explored as one of the assessment criteria for treatment, as a predictor of programme effectiveness or as a separate independent variable.

Few exclusions were placed on the type of treatment in each study. For example, cognitive behavioural, educational or skills based programmes and those that take a multi-modal approach were all included. Programmes with an overall aim of reducing violence, or risk of such, but not necessarily labelled as violent offender treatment were also included if violence is assessed as an outcome. For example, 'Anger Management' and other single focus programmes such as 'Thinking Skills' were all included. All study designs were included, with the exception of qualitative studies and single case study designs. No restrictions were placed on treatment dose as optimum length of treatment is debatable in the literature (Jolliffe & Farrington, 2007).

Violence here is defined as 'actual, attempted, or threatened harm to a person or persons' and therefore includes both physical and non-physical violence (Douglas, Ogloff, & Hart, 2003). Domestic violence is thus included here. Sexual violence is however, not included here because significant differences exist between sexual and violent offenders (Gudjonsson, & Sigurdsson, 2000) and therefore treatment of these two populations should reflect these differences. Self-harming behaviours are also excluded because the motives behind these acts are often very different to those of violence perpetrated against others.

Comparator: The comparators within studies were variables other than motivation (e.g. motivation compared to other predictors of outcome, e.g. length of treatment). Categories of motivated individual (e.g. studies comparing motivated vs not motivated participants) were also included as comparators. In addition, studies incorporating attrition and drop out rates had to include comparisons with those who stayed in treatment,

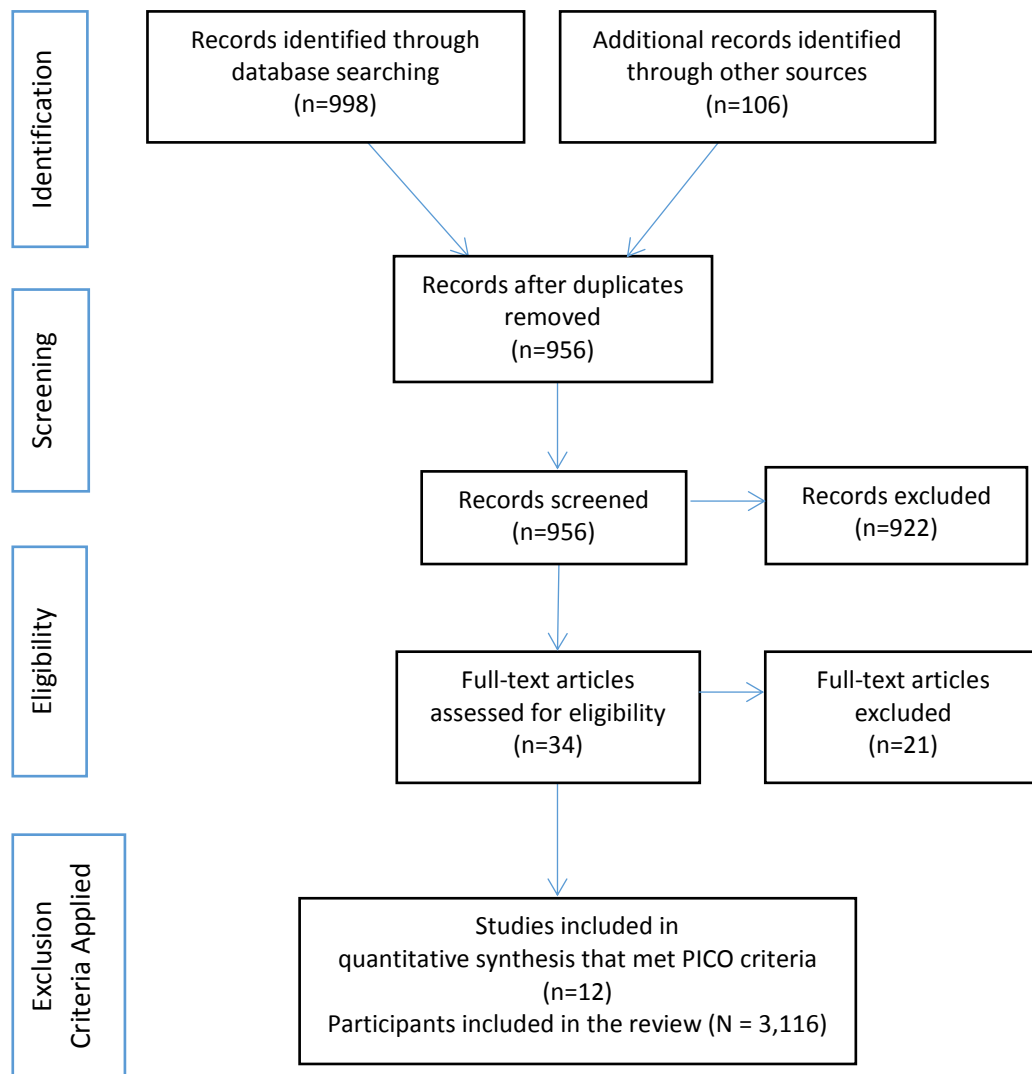
and motivation must have been measured or assessed prior to the intervention commencing. Studies where violent and non-violent offenders are compared were also included, as were studies that compare treatment types (such as CBT versus non-CBT interventions).

Outcome: Studies where the outcome measures relate to a reduction in violence, anger, or verbal aggression were all included. Attrition rates were also included as an outcome as measured by the percentage or frequency of dropouts. No restrictions were placed on the measurement or type of outcome. If reports from third parties were used as a measurement of violence or aggression these studies were only included if measures were quantitative.

2.2.3. Study Selection

Once a full search had been completed, all the references were compared against the inclusion criteria and those not meeting the criteria were excluded. See Figure 1 for a flow diagram of the review process. PRISMA guidelines (Moher, Liberati, Tetzlaff, & Altman 2009) were followed in the selection process and creation of the flow diagram. The authors of the studies were contacted wherever clarifications were needed. Studies were omitted from the review if no reply was received within 3 months.

Figure 1. Systematic Review Flow Diagram



2.2.4. Quality Assessment

Initially 1,104 papers were collected. After duplicates were removed 956 studies remained. Of the 956 papers retrieved, 922 were excluded after failing to meet basic inclusion criteria. These included papers with no reference to violence, aggression, or anger. If any doubt about relevance was evident then studies were not excluded at this stage. Systematic reviews, meta-analytic reviews, and opinion papers were also excluded at this point. Thirty-four full text studies were therefore reviewed and quality assessed. A further 21 studies were excluded at this stage due to poor methodological quality and failing to meet specific inclusion criteria. For instance, 10 studies were excluded which did not measure motivation

prior to treatment. The final number of studies included in this review was therefore 12.

A quality assessment form (see Appendix B for an example) was then designed based on recommendations from the Cochrane Handbook (Higgins, & Green, 2011) to enable assessment of the extent to which a study was methodologically sound and unbiased. The risk of bias was rated (for each item) by assessing whether the studies met the selected criteria. Ratings of 'Yes' = 2, 'No' = 0, 'unclear' = 1, or 'Not applicable' = 0 were summed to provide the overall quality score. Overall scores ranged from 0-70, with studies scoring below 35 being removed due to poor methodological quality. Studies scoring 35 or below would only have achieved half of the points available and were therefore deemed to be a high risk of bias. Scores of 35 to 45 were considered to be of *weak* quality, scores from 46 to 55 were considered *moderate*, and studies with scores above 55 were considered to be *strong*. In order to avoid researcher bias, a second assessor reviewed the quality of 20% of studies using the QA form and the PICO described above. The second assessor worked independently from the main study researchers. Inter-rater reliability for the two assessors showed a strong correlation, $r = .95$, $n = 3$, $p > .05$, 89% variance shared.

2.2.5. Data Extraction

The reviewers developed a structured data extraction sheet to extract, quantify, and summarize information from studies (see Appendix C). Before extraction began, the primary reviewer completed an initial scope of similar review studies and a pilot of the extraction sheet in order to refine the criteria and increase reliability. Discussions also took place, regarding extraction criteria, amongst those involved in the review process. After each study was checked independently, coding sheets were compared and discrepancies were discussed. The data extraction sheet was based on the PRISMA Group checklist (Moher, et al. 2009), and informed by the Cochrane Handbook (EPOC; 2013), to ensure a structured and coherent format for the review.

2.3. RESULTS

2.3.1. Characteristics of included studies

The characteristics of the 12 included studies are summarized in Table 1. The total number of participants (including treated and untreated violent offenders) was 3,166. This figure does not include the sample of 119 men from Scott and Wolfe's (2003) study, due to some of the same participants being used in both this study and a later study by Scott (2004). Scott's (2004) study was included, despite the overlap in samples, because the two studies assessed violence in different ways. A further two studies were also very similar, aside from the use of different participants assigned to a high intensity programme (Connors, Mills & Gray, 2012) and a medium intensity programme (Connors, Mills & Gray, 2013). However, these studies employed separate samples and so were both included.

Predominantly, studies were carried out in Canada (7 studies, 58%), three (25%) were carried out in the USA, one was carried out in New Zealand, and one in Australia. The majority of participants, in all studies, were Caucasian. All studies used convenience sampling, which is a common method of sampling for violent offender populations, yet can reduce generalizability due to the risk of unrepresentative sampling bias (Pietz, & Mattson, 2015). Most studies recruited from community samples (n=7). The remainder (n=5) explored the impact of programs within federal or state institutions, where participants were referred to the intervention by a professional associated with their care.

Table 1. Characteristics of Studies Included in the Review

Study	Design	Setting	N	Measure of Motivation & Theoretical Model	Intervention Name & Type	Outcome Type		Quality Score
						Psychometric or Other Measure	Dropout Rate (%)	
Connors, Mills, & Gray. (2012)	Cohort	Prison Canada	298	Facilitator rated Stage of Change & Offenders' Self-Rated Readiness to Change (OSRC) No model referenced	Moderate Intensity Family Violence Prevention Program (MIFVPP). CBT	Domestic violence vignettes (DVV). Abusive Relationship Inventory (ARI). Aggression Questionnaire-Revised (AQ-R).	15.8%	42 Weak
Connors, Mills, & Gray. (2013)	Cohort	Prison Canada	159	Facilitator rated Stage of Change & Offenders' Self-Rated Readiness to Change (OSRC) No model referenced	High Intensity Family Violence Prevention Program (HIFVPP) CBT	Domestic violence vignettes (DVV). Abusive Relationship Inventory (ARI). Aggression	13.8%.	41 Weak

						Questionnaire- Revised (AQ- R).		
Kroner, Power, Takahashi & Harris (2014)	Cohort	Prison Canada	273	Motivation to attend Tx and accept help. No model employed	Violence Prevention Program (VPP). Social learning and social information- processing theories	Attrition rates	49.5%	38 Weak
Levesque, Prochaska, Ciavatta, Castle, & Prochaska (2012)	Case control	Community USA	492	The University of Rhode Island Change Assessment- Domestic Violence-Revised (URICA-DV-R) (Levesque, Velicer, et al., 2008). Trans-theoretical Model (TTM)	Batterers Intervention + Journey to Change Program. TTM, CBT & Relapse Prevention	Conflict Tactics Scales (CTS; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Police involvement. Programme completion.	27.4%	50 Moderate
Polaschek & Ross (2010)	Cohort	Prison New Zealand	70	Client Attributes Scale (Simpson, 1998). The Violence Risk Scale (VRS; Wong & Gordon, 1998-2003). Trans-theoretical Model (TTM)	Te Whare Manaakitanga (TWM). CBT	Time in treatment. The Violence Risk Scale (VRS; Wong & Gordon, 1998- 2003)	17%	43 Weak

Rooney & Hanson (2001)	Case control	Community Canada	306	Commitment to Change Scale (Hanson, 1993). No model employed	Programs A, B, C & D Male Battering Treatment Programs. Mixed Modalities, incl. CBT, Psycho-analytic & Humanistic	Attrition rates Tolman's Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989)	Ranged from 36% to 42%	58 High
Semiatin, Murphy & Elliott (2013)	Case control	Community USA	82	Safe at Home Instrument for Assessing Readiness to Change Intimate Partner Violence (SAH; Begun et al., 2003). Trans-theoretical Model (TTM)	Domestic Abuse Treatment + Motivational Enhancement. CBT & Counselling	Observational Coding of Pro-therapeutic Group Behaviour	Unclear	56 Moderate
Scott & Wolfe (2003)	Cohort	Community Canada	119	University of Rhode Island Change Assessment Scale (McConaughy, DiClemente, Prochaska, & Velicer, 1989). Trans-theoretical Model (TTM)	Changing Ways (Batterer Treatment). Feminist-Oriented, Psycho-Educational Counselling	The abuse inventory from the Conflict Tactics Scale (Straus, 1979). Psychological Maltreatment of Women Inventory, Short Version (PMWI; Tolman, 1999)	55.7%	53 Moderate

Scott (2004)	Case control	Community	308	University of Rhode Island Change Assessment Scale (McConaughy, DiClemente, Prochaska, & Velicer, 1989). Counselor-Rated Stage of Change. Trans-theoretical Model (TTM)	Batterer Treatment Program. Feminist-Oriented, Psycho-Educational Counselling	Attrition rates	61.4%	52 Moderate
		Canada						
Bennett, Stoops, Call, & Flett (2007)	Case control	Community	549	Probation Officer Rated Motivation to Change. Trans-theoretical Model (TTM)	Batterer Treatment System of 30 Programs. Program Approach Not Recorded	Conflict Tactics Scales (CTS; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989). Attrition rates. Re-arrest.	15.1%	47 Moderate
		USA						
Williamson, Day, Howells, Bubner & Jauncey (2003)	Case control	Prison	418	The Anger Readiness to Change Questionnaire (ARCQ) adapted by the authors from the Readiness to Change Questionnaire (RCQ; Heather and	32 Anger Management programmes. CBT & Relapse Prevention	The State-Trait Anger Expression Inventory (STAXI; Spielberger,	Unclear	50 Moderate
		Australia						

				Rollnick, 1993).		1991).		
				Treatment Readiness Scale (TRS).		The Novaco Anger Scale (NAS-PI; Novaco, 1994).		
				Trans-theoretical Model (TTM)		Watt Anger Knowledge Scale, (WAKS; Watt & Howells, 1999).		
						Modified Overt Aggression Scale (MOAS; Kay et al., 1988)		
Zalmanowitz, Babins-Wagner, Rodger, Corbett, & Leschied. (2013).	Case control	Community Canada	211	University of Rhode Island Change Assessment Scale (URICA; McConaughy, DiClemente, Prochaska, & Velicer, 1989). URICA-DV-R (Levesque, Velicer, et al., 2008). Trans-theoretical Model (TTM) & Motivational Interviewing (MI)	Responsible Choices for Men (RCM). CBT, Process-Oriented Approach	Outcome Questionnaire (OQ; Lambert et al., 1996)	-	44 Weak

Those studies employing community samples also varied in their recruitment of voluntary and court-ordered participants. Some had a variety of both (Rooney & Hanson 2001; Scott & Wolfe, 2003; Scott, 2004; Semiatin et al., 2013), others used only court-mandated participants (Bennett et al., 2007; Levesque et al. 2012; Zalmanowitz et al., 2013). As noted by some of the study authors, there is an important distinction to be recognised with such samples due to the external influences placed on incarcerated or court-ordered offenders. Furthermore, higher rates of completion tend to be seen with these participants in comparison with those who attend treatment on a voluntary basis (e.g. Coviello et al., 2013).

In the majority of cases (10 studies), participants were assigned to treatments for domestic violence (referred to as Batterer Intervention Programmes [BIPs] by some authors). Most of these programmes (n=7) were underpinned by Cognitive Behavioural techniques, but some (n=3) also took feminist orientated approaches or were based on the Duluth Model (a model explaining domestic violence as a patriarchal and societal problem grounded in male control over women; Lorenz, 2013). Some programs also took a social learning or mixed modality perspective, involved the implementation of skills based learning, relapse prevention techniques, or employed psycho-education. Kroner, et al. (2014) studied violent offenders more broadly, and their responses to the Violence Prevention Program (VPP). Williamson, et al.'s (2003) study was the only one involving anger management interventions to meet the inclusion criteria. The 32 anger management programmes they included also incorporated cognitive behavioural approaches. All studies involved interventions that contained both a group and an individual element, with the exception of one study in which a description of the program was not provided (Bennett et al., 2007).

All participants were those with a history of violence, however, the recording and measurement of past violence varied considerably between studies. Reporting ranged from studies that included violent history as an independent variable within their analyses (Bennett et al., 2007; Kroner et

al., 2014; Rooney & Hanson, 2001), to those that did not report past incidents of violence at all (n=4). The most prevalent measurement of outcome was victim reported violence (n=4). Due to domestic violence being the primary focus of most studies, victims tended to be the intimate partners of participants, and were mostly recruited via telephone interview. Other authors employed measures of self-reported anger (Williamson et al., 2003), aggression and violence (Polaschek & Ross; 2010), abusive relationships (Connors et al. 2012; 2013), global functioning (Zalmanowitz et al., 2013) or pro-social behaviours (Semiatin et al., 2013) as dependent variables. Recidivism rates were only reported as an outcome in one study (Bennett et al., 2007) but five studies reported the rates of dropout or attrition as a primary outcome measure (Bennett et al., 2007; Kroner et al., 2014; Levesque et al., 2012; Rooney & Hanson 2001; Scott, 2004). Only a small proportion of studies (33%) reported statistically significant pre-post changes across the intervention. One study noted that the treatment was clinically, but not statistically, significant (Zalmanowitz et al., 2013). The remaining studies did not clearly report whether the treatment program had a substantial impact on outcome.

2.3.2. Study Quality

Seven of the 12 included studies employed case-control designs, with the remaining studies using cohort designs. Of the seven case-control studies, none of them employed a matched control group. Those employing a case-control design either compared treatment completers with treatment dropouts (n=3), or compared a treatment group with a control group (n=4). Case-control studies are particularly prone to selection bias (Genelettia, Best, Toledano, Elliott, & Richardson, 2011) but those comparing completers and non-completers may be even more so. This is because treatment dropouts have been found to have a higher likelihood of recidivism than treatment completers (Hanson & Morton-Bourgon, 2005a). Of the remaining five cohort studies only three attempted to control for confounding variables, such as demographic characteristics (Kroner et al., 2014; Scott & Wolfe, 2003) or facilitator ratings (Connors et al., 2013). The potential for bias within the cohort studies, due to the

inability to control for confounding variables, is therefore difficult to measure. The majority of studies (83%) did utilise large samples ($n > 100$), yet only 3 (Levesque et al., 2012; Polaschek & Ross, 2010; Semiatin et al., 2013) of the 12 studies conducted a follow up. The longest follow up period was 6 months (Polaschek & Ross, 2010).

Only one study (Polaschek & Ross, 2010) reported partial assessor blinding to the consent status of participants. None of the other studies reported blinding of clinicians or participants to the outcome, study hypotheses, or participant details. The importance of blinding, in at least one aspect of observational studies, can be vital in reducing ascertainment and reporting bias (Karanicolas, Farrokhyar, & Bhandari, 2010). A number of instances of reporting bias were noted during review however, particularly regarding the description and explanation of non-significant findings. This was noted in approximately 50% of studies. Some studies did note that non-significant results had been obtained but failed to account for the reasons behind this or to offer full details of the results for the reader to establish causality. Other methodical errors noted were the way that studies dealt with missing information and the full reporting of the demographic information of participants. Table 2 summarises the methodological limitations of reviewed studies.

Table 2. Methodological Considerations of Reviewed Studies.

	No. of Studies (n = 12)			Unclear/Not Applicable
	Yes	Partial	No	
Large Sample (>100)	10 (83%)	-	2 (17%)	
Sample Demographics Clearly Described (including past violence)	6 (50%)	5 (42%)	1 (8%)	
Valid and Reliable Measures Employed	2 (17%)	8 (66%)		2 (17%)
Follow up included	3 (25%)		9 (75%)	
Assessors Blinded to Outcome		1 (8%)	11 (92%)	
Non-Significant Results Clearly Reported and Discussed	6 (50%)	2 (17%)	4 (33%)	
Attempts made to Control for Confounding Variables	4 (33%)	4 (33%)	4 (33%)	

2.3.3. Descriptive Data Synthesis

A narrative data synthesis is presented here. A quantitative synthesis, such as a meta-analysis, was not deemed appropriate in light of the heterogeneity of included studies (in terms of methodological differences, diversity of interventions, and the range of treatment outcome measures employed). However, effect sizes were calculated for all studies in order to provide an overall picture. Tables 3 and 4 provide a summary of results by study design. Weighted mean effect sizes indicated that motivation had a medium effect on outcome in the cohort studies but a small effect on outcome in the case control studies (see table 5).

Table 3. Summary of Results for Cohort Studies Included

Study	Statistical Method Employed	Results	Sig.	Did Motivation Impact Outcome?	Key Limitations
Connors, Mills, & Gray (2012)	t-tests	There was significantly greater improvement on DVV ($t = 3.6$), AQ-R ($t = 14.7$) & IRS ($t = 16.6$) for those who were rated as ready to change by the facilitator. And significantly greater improvement on DVV ($t = 3.5$), AQ-R ($t = 14.5$) & IRS ($t = 16.5$) outcomes for those who self-reported being ready to change. This was not the case for the ARI scale.	$p < .001$. $p < .05$ $p > .05$	Mixed	Sampling bias in non-representative sample of offenders
Connors, Mills, & Gray (2013)	Correlation	Facilitator-rated motivation was significantly positively correlated with improvement in all the DVV domains ($r = .23$), but not with IRS ($r = .08$), AQ-R ($r = .00$) or ARI ($r = .05$) Offender-rated motivation was also significantly positively correlated with improvement in all the DVV domains ($r = .238$), but not with IRS ($r = .08$), AQ-R ($r = -.09$) or ARI ($r = -.07$)	$p < .01$ $p > .05$ $p < .01$ $p > .05$	Mixed	Absence of follow up period. Lack of Assessor Blinding
Kroner, Power, Takahashi & Harris (2014)	Logistic Regression	Motivation contributed to the model when antisocial behaviour was included (OR = 0.77, 95% CI = 0.57–1.02). When recent antisocial behaviour (OR = 0.89, 95% CI = 0.67–1.19) and the non-antisocial instability measure (OR = 0.81, 95% CI = 0.61–1.08) were added, motivation did not contribute to the prediction of treatment attrition.	$p < .05$ $p > .05$	Mixed	Use un-validated measures
Polaschek & Ross (2010)	Correlation	Initial ratings of motivation ($r = 0.30$), and pre-programme stage of change ratings ($r = 0.34$) predicted how long men stayed in treatment. Therapists' ratings ($r = 0.06$) and stage of change ($r = 0.02$), were not related to how much prisoners changed.	$p < .05$ $p < .01$ $p > .05$ $p > .05$	Mixed	Use of purely correlational analyses

Scott & Wolfe (2003)	Hierarchical Linear Modelling	When Pre-contemplation and Action were contrasted, they significantly predicted variation in self-reported abuse perpetration, $B = -1.66$, $t\text{-ratio} = -3.42$. But they did not predict variation in partner-reported victimization, $B = -2.16$, $t\text{-ratio} = -1.81$.	$p < .01$. $p > .05$	Mixed	No comparisons with non-completers despite high dropout rates
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Table 4. Summary of Results for Case Control Studies Included

Study	Statistical Method Employed	Sample Size		Results	Sig.	Did Motivation Impact Outcome?	Key Limitations
		Treatment	Comparison				
Levesque, Prochaska, Ciavatta, Castle, & Prochaska (2012)	Logistic Regression	244 (Usual Treatment + Journey to Change)	248 (Usual Treatment)	Participants completing the Journey to Change condition had significantly lower rates of victim reported violence than the comparison group adjusted OR = 0.31 (95% CI = 0.12, 0.75). Being in the action stage at baseline was associated with significantly increased odds of talking to one's partner OR = 1.10 (95% CI = 0.59-2.04), talking to friends or family OR = 1.34 (95% CI = 0.75-2.38), talking to a medical professional OR = 1.95 (95% CI = 1.12-3.39), and using other strategies to stay violence-free.	$p < .05$ $p < .05$	Mixed	Potential reporting bias – Non-significant results not discussed
Rooney & Hanson (2001)	Cox's regression	148 (completers)	144 (no-shows = 52) (Dropouts = 92)	Commitment to Change was not correlated with in program attrition ($r = -.04$). However, no-shows had significantly lower motivation	$p > .05$	Mixed	Some scales not reliable or valid. Non-sig results not

				than completers ($X^2 = 4.04$).	$p < .05$		reported in full.
Semiatin, Murphy & Elliott (2013)	Correlation	40 (treatment + Motivational Enhancement)	42 (treatment)	Self-reports of motivation to change predicted pro-therapeutic group behaviour early $r = .44$ (95% CI = .24- .60), and late in treatment, $r = .30$ (95% CI = .08-.49).	$p < .01$ $p < .01$	Y	No comparisons drawn between groups.
Scott (2004)	Hierarchical Logistic Regression	119 (completers)	189 (non-completers)	Self-reported stage of change failed to make a significant contribution to prediction, OR = 0.74, (95% CI = 0.38–1.45). Counsellor-rated stage of change did make a significant contribution to the model, $X^2 (7) = 6.67$. Men rated in the pre-contemplation stage were 2.33 (95% CI = 0.73–7.42) times as likely as men in the contemplation stage and 8.83 (95% CI = 1.53– 50.71) times as likely as men rated in the action stage to dropout before program completion.	$p > .05$ $p < .05$ $p > .05$ $p < .05$	Mixed	Bias in prediction, with a much higher percentage of men correctly classified as dropouts than completers.
Bennett, Stoops, Call, & Flett (2007)	Instrumental variable estimation (IVE) for logistic regression	413 (completers)	136 (non-completers)	Being an active changer is a significant predictor of program completion (OR = 2.34, CI: 1.49 to 3.66). Being an active changer did not predict re-arrest, $B = -.36$, OR = 0.69 [95% CI = 0.42-1.12]	$p < .05$ $p > .05$	Mixed	Potential reporting bias – Non-significant results not fully discussed.

Williamson, Day, Howells, Bubner & Jauncey (2003)	One-way ANOVA & Moderated Multiple Regression	220 (treatment)	65 (control)	Prisoners at a higher stage of change who also received the treatment, ($M = -0.31$, $SD = 0.49$), showed significantly greater improvements in anger than did those in the control group or those who received the treatment but were in the pre-contemplation stage, ($M = -0.09$, $SD = 0.40$), t contrast (168) = 2.61. Readiness to change (TRS) was a significant predictor of anger change, $B = -0.20$. The "effect" of initial is greater in the treatment group ($B = -0.015$) than in the control group ($B = -0.00013$).	$p < .05$ $p < .05$	Mixed	No reporting of attrition. Reliance on self-report measures alone.
Zalmanowitz, Babins-Wagner, Rodger, Corbett, & Leschied. (2013).	Two-Level Hierarchical Linear Model (HLM)	105 (Treatment + MI)	106 (Non-MI)	The preparation ($\beta = 19.60$, $SE = 5.33$, $p < .001$) and action-high-relapse ($\beta = 14.50$, $SE = 5.72$) groups had statistically significant and higher OQ scores at the intercept when compared to the pre-contemplation group. Men who did not receive the MI ($M = 38.97$, $SE = 2.43$) had higher OQ scores than those who received MI ($M = 33.21$, $SE = 3.27$) but they were not statistically significant	$p < .05$ $p > .05$	Mixed	No reporting of attrition. Reporting bias in the interpretation of results.

Table 5. Effect Sizes for All Included Studies

Study	Type of Study	Sample Size	Mean Effect Size	Weighted Mean Effect Size
Connors, Mills, & Gray (2012)	Cohort	298	0.53	0.42
Connors, Mills, & Gray (2013)	Cohort	159	0.11	
Kroner, Power, Takahashi & Harris (2014)	Cohort	273	0.53	
Polaschek & Ross (2010)	Cohort	70	0.18	
Scott & Wolfe (2003)	Cohort	119	<i>Effect size calculation not possible due to lack of information</i>	
Levesque, Prochaska, Ciavatta, Castle, & Prochaska (2012)	Case Control	492	0.15	0.24
Rooney & Hanson (2001)	Case Control	306	0.08	
Semiatin, Murphy & Elliott (2013)	Case Control	82	0.37	
Scott (2004)	Case Control	308	0.16	
Bennett, Stoops, Call, & Flett (2007)	Case Control	549	0.39	
Williamson, Day, Howells, Bubner & Jauncey (2003)	Case Control	285	0.18	
Zalmanowitz, Babins-Wagner, Rodger, Corbett, & Leschied (2013)	Case Control	211	0.10	

2.3.3.1. The Measurement of Motivation

The definition and assessment of offender motivation varied significantly across the 12 studies. A key distinction between studies appeared to be whether they assessed motivation to attend and engage in treatment, or a readiness to change the target behaviour (e.g. domestic violence). The most commonly used measure of motivation ($n = 3$), a tool underpinned by the Trans-Theoretical Model (TTM; Prochaska & DiClemente, 1982), was the University of Rhode

Island Change Assessment Scale (URICA; McConaughy, DiClemente, Prochaska, & Velicer, 1989). Two studies also employed the University of Rhode Island Change Assessment-Domestic Violence-Revised (URICA-DV-R; Levesque, Velicer, Castle, & Greene, 2008). Both the original and revised tools have been found to be both valid and reliable (Field et al., 2009; Levesque et al., 2008), although further evidence of validity is needed for the URICA-DV-R. Bennett et al., (2007); Kroner et al., (2014); and Connors et al., (2012; 2013), created scales of their own to measure motivation. These consisted of clinician-rated or self-report scales ranging from dichotomous measures of motivation to change (Bennett et al. 2007; Kroner, et al., 2016) to Likert scale questionnaires regarding readiness (Connors, et al., 2012; 2013). None of these forms of measurement was founded in a theoretical model or approach, and none of the scales were assessed for reliability or validity. It is therefore difficult to ascertain exactly what aspect of motivation was being measured and to compare these measures accurately with other research.

Three studies employed measures that were specific to their cohort. Semiatin et al. (2013) employed the Safe at Home Instrument for Assessing Readiness to Change Intimate Partner Violence (SAH; Begun et al., 2003) and Williamson, et al. (2003) created the Anger Readiness to Change Questionnaire (ARCQ) which they adapted from the Readiness to Change Questionnaire (RCQ; Heather & Rollnick, 1993). Both scales were reported to be internally consistent with alphas of .75 and .82 respectively. Rooney and Hanson (2001) measured motivation using the Commitment to Change Scale (Hanson, 1993), which they constructed specifically to measure men's motivation to change their abusive behaviour towards their partner. The authors did not assess the reliability or validity of the tool however. Taking an alternative approach, Polaschek and Ross (2010) used a single factor from the Client Attributes Scale (Simpson, 1998). It could be argued that using only a single factor from a scale designed to measure an alternative construct, could restrict the scope of motivation and provide an inaccurate representation of readiness.

In this case the authors also formed an “early stage of change” score from ratings of each item on the Violence Risk Scale (VRS; Wong & Gordon, 1998-2003), which may have added additional rigidity to their conceptualisation of motivation.

The type of rating used within studies (clinician-rated versus self-report) seemed to have little impact on outcome. Several studies employed both rating approaches (n=3), whereas many used only self-report measures (n=6). When ratings were compared, Scott (2004) found that counsellor-rated but not self-reported stage of change predicted treatment dropout. Men rated as being in the pre-contemplation stage were also twice as likely as those in the contemplation stage, and eight times as likely as men in the action stage, to discontinue treatment prematurely. However, self-reported stage of change did not predict attrition. In fact, those rating themselves in the action stage were more likely than those in the pre-contemplation stage to dropout of treatment. A vital point raised however, is whether counsellors and participants conceptualised motivation in the same way. This was not the case in Scott’s (2004) study because self-report ratings and counsellor ratings were provided at different times and were measured by dissimilar scales. In addition, despite facilitators and participants rating motivation differently in both of the Connors et al. (2012; 2013) studies, consistent results were reported. Offenders who were deemed more “ready to change” demonstrated positive treatment change, regardless of whether the measure was clinician-rated or self-report. This may suggest that if an individual is highly motivated they may make greater improvements during an intervention, regardless of the measurement approach.

The potential for responding bias, such as participants being influenced by social desirability factors, is a common phenomenon in self-report measures (van de Mortel, 2008). Some authors have also reported that there may be the perception of stigma surrounding the use of terms within specific measures. For example, Scott and Wolfe (2003) noted that they chose a general measure of motivation

because they felt participants may reject the term “abuse” as a description of their behaviour towards their partner. For offenders, the concept of social desirability also becomes more complex in the context of extrinsic motivators, such as eligibility for parole, increased access, or shortened sentences (Howells & Day, 2003). Some authors have even recommended utilising measures of deception alongside self-reports in order to control for this (Schamborg, Tully, & Browne, 2015). However, even those studies using only clinician-rated measures made little effort to present a common definition of motivation or to assess inter-rater reliability between assessors.

2.3.3.2. The Impact of Motivation

In general, the results regarding the influence of motivation on study outcome were mixed. Although some similarities could be seen in the theoretical approach taken by authors, few other consistencies were apparent. The theoretical approach most widely employed by reviewed studies (n=8) was the Stages of Change aspect of the TTM (Prochaska & DiClemente, 1982). All studies employing this approach found some form of relationship between a participants’ motivation before treatment and their engagement in the treatment, or progress on other outcomes. The associations varied from those indicating that participants in later stages of change made greater treatment gains (Levesque, 2013; Semiatin et al., 2013; Scott & Wolfe, 2003; Williamson et al., 2003; Zalmanowitz et al., 2013), to studies showing that higher levels of readiness were associated with a longer period spent in treatment (Bennet et al., 2007; Polaschek & Ross, 2010; Scott, 2004). Despite the predictive nature of the stages of change approach in many respects, there were also numerous outcomes within these studies that were not associated with allocation to stages prior to treatment. For example, in Polaschek and Ross’s (2010) study, being in a later stage predicted how long men stayed in treatment but did not predict the degree of change in violence risk over the program. These findings are consistent with the wealth of literature indicating that the TTM can have highly variable results

when applied to assessments and interventions (e.g. Riemsma et al., 2002).

Studies can also be broadly divided into those assessing the impact of motivation on treatment attrition and those focussing on a specific outcome, such as anger, aggression, or lifestyle functioning. In regards to treatment attrition, Rooney and Hanson (2001) showed that participant commitment to change was not significantly related to attrition nor did it explain a significant proportion of treatment dropout. They did note that participants with lower levels of motivation were over-represented in the pre-program dropouts, but were unable to interpret this result further due to variations in the attrition rates across programs. Furthermore, their measure of motivation (the Commitment to Change Scale; Hanson, 1993) focussed on willingness to reduce their intimate partner violence but did not assess motivation to attend or complete treatment despite this being the primary outcome under scrutiny.

Kroner et al.(2014) reported similar results, although unlike Rooney and Hanson (2001), they did measure motivation to attend the intervention. They aimed to discover whether prior treatment dosage, motivation, and anti-social behaviour were significant predictors of programme attrition for generally violent offenders. They found that motivation only predicted attrition when past antisocial behaviour was included in the logistic regression model. With past antisocial behaviour removed, motivation did not have a significant impact on attrition rates. The authors suggest that dynamic and recent variables may, therefore, be influencing the power of motivation to predict attrition. However, returning to the point of measurement, the authors used a broadly defined but dichotomised measure of motivation, not underpinned by a theoretical model. Therefore, it may be that some of the intricacies of the internal and external influences on motivation were neglected. Furthermore, they assessed offender motivation one year prior to participants entering the programme. Therefore, it is highly likely that motivation had varied within this time

period considering the dynamic and fluid nature of offender motivation (Viets et al., 2002).

In Bennett et al.'s (2007) study, results revealed that being an active changer was a significant predictor of program completion but did not accurately predict re-arrest for domestic violence. However, dropping out of the program did predict re-arrest, therefore motivation may have played a part in enhancing treatment adherence and subsequently reducing recidivism. These authors therefore advocate for the application of motivational enhancement prior to, and during, treatment in order to maintain the engagement of offenders who may otherwise go on to re-offend. The association between higher motivation prior to treatment and program completion was also found by both Polaschek and Ross (2010) and Scott (2004).

When other outcomes are considered the impact of motivation becomes even more complex. Results revealed by Connors, et al. (2012), show that participants rated as ready to change made significantly greater improvements on their reporting of healthy intimate relationships, feelings of anger and aggression, and responses to domestic violence vignettes. Improvements were also seen on the Abusive Relationships Inventory (ARI; Boer, Kroner, Wong, & Cadsky, 1993) for those assessed as ready to change, however these results were not significant. Similarly, positive results were found by Connors et al. (2013). They reported significant positive correlations between both facilitator and offender-rated motivation and improvement on responses to domestic violence vignettes. Facilitator-rated motivation also correlated with improvements in the goals set by facilitators (such as acceptance of responsibility). Furthermore, even participants who began as unmotivated still improved faster and performed better (on facilitator-rated outcomes such as acceptance of responsibility) if their motivation increased throughout the programme, than those who remained unmotivated. Significant correlations were not found, however, between ratings of motivation and self-reported

improvements on the scales regarding aggression, abusive relationships, or healthy relationships.

Results found by Williamson et al. (2003) were also varied. They noted that anger management interventions were more beneficial when treatment readiness was initially high and participants were classified to higher stages of change. They also looked at whether stage of change acted as a mediator variable, hypothesising that change in treatment readiness across the programme leads to change in anger outcomes. Their findings did not support this hypothesis however.

The study by Semiatin et al. (2013) was the only study that reported consistently positive correlations between readiness to change and outcome. Men in their study who were in the higher stages of change demonstrated significantly more pro-therapeutic group behaviours than men who rated themselves as less ready. In their study of 211 perpetrators of domestic violence, Zalmanowitz et al. (2013) also reported that participants in the preparation and "action high-relapse" stages of change were found to have higher scores on the Outcome Question (OQ) than participants in lower stages of change. They interpreted this result as being a positive demonstration of greater insight amongst participants, regarding their problem areas. However, this interpretation could be subject to scrutiny because they also reported that those in the "action low-relapse" stage had lower scores on the OQ and that this demonstrated evidence of participants making active changes to their global functioning.

A final and key point to note, is that all of the studies that employed interventions with a motivational element reported positive changes in participant behaviour. With the exception of Zalmanowitz et al. (2013), they all reported statistically significant pre-post treatment effects. Furthermore, although Zalmanowitz et al. (2013) did not find statistically significant improvements in outcome, they did report that the effects of Motivational Interviewing (MI; Rollnick, & Miller, 1995) were clinically significant. These studies also recorded positive

associations between motivation at baseline and treatment outcome. This trend is consistent with much of the literature supporting the use of motivational enhancement techniques in improving treatment outcomes (McMurran, 2009), suggesting an important role for such techniques within violent offender treatment.

2.4. DISCUSSION

2.4.1. Limitations of the Reviewed Studies

Study quality within this review was found to be moderate overall, with some notable methodological biases in reporting, selection, outcome, and control of confounding variables. Assessor blinding was particularly low (8%) and few studies clearly reported or assessed the validity and reliability of their measures. A number of key areas were also noted across studies in regards to the reporting of demographic factors. For instance, only 50% of studies recorded past history of violence despite the nature of the population. Similarly, attrition and attendance rates were not recorded in all studies, despite significant associations between motivation and treatment engagement being widely acknowledged (McMurran, & Ward, 2010). There was also very little recording of the prevalence of mental illness within the offending populations despite the rates of mental illness being particularly high amongst offenders (over 90% of prisoners found to have one or more mental disorders; the Bradley Report, 2009), and mental disorders often acting as confounding factors in treatment completion and outcome (Sirotych, 2008). These aspects do somewhat limit the scope of the current review in determining the full influence of motivation on violence reduction treatment.

Most studies included were conducted in Canada and the USA, where the criminal justice system, and the treatment of violence, differs quite considerably from Europe and other continents. Although some European countries may employ similar techniques in addressing domestic violence, to that of the US and Canada (e.g. Rivett, 2006),

it is difficult to generalise regarding offender motivation cross-culturally without additional, quality research from the UK and Europe. Canadian and American studies also appear to focus primarily on interventions for perpetrators of domestic violence. Therefore, the majority of studies included in this review are conducted with this population and employ interventions specifically for the needs of this group. Research has also indicated that significant differences exist between perpetrators of domestic violence and generally violent offenders (e.g. Gilchrist et al., 2003). In addition, "Batterer Intervention Programs" themselves have received criticism for the models underpinning the programs and the limited extent to which they produce positive effects in reducing domestic violence recidivism (Babcock, Green, Robie, 2003; Eckhardt, Murphy, Black, & Suhr, 2006). It is also possible that individual willingness to engage is reduced in such programmes, where participants are referred to as "batterers", in a similar way to individuals being reluctant to engage in sex offender treatment (see Brown & Tully, 2014).

It was also noted by review authors that, although not all studies included domestic violence perpetrators, those that did only reported abuse against female victims. No same sex relationships were reported in any of these studies. This appeared somewhat biased in light of the evidence showing that levels of domestic abuse and violence are just as prevalent in same sex relationships as they are in heterosexual ones (Baker et al., 2013; Donovan, Hester, Holmes, & McCarry, 2006).

2.4.2. The Impact and Measurement of Motivation

The evidence reported in this review, for the impact of motivation on the treatment of violent offenders, was inconsistent. However, overall studies produced some empirical support for the theory that individuals with higher levels of motivation (or readiness) prior to treatment, benefit more from violent offender treatment than those with lower motivation. Several studies also found that the predictive power of motivation was strong in determining both treatment

retention and improvement on desired treatment goals. Only one study (Kroner et al., 2014) reported non-significant results and advocated for a review of the influence of motivation. There appeared to be some key methodological features of studies that are likely to have had an influence on the direction of findings. In summary, these were the definition and assessment of motivation, the theoretical approach taken by the studies, and the use of motivational techniques within the interventions employed.

The diversity of measurement across studies, and the need for authors to create their own scales to assess motivation, perhaps lends support to the argument that there is a lack of consensus regarding the definition of motivation as a concept (e.g. Viets et al., 2002). Thus, the assessment of the construct is difficult. It was noted that there was often little attempt to define motivation for participants within scales and, similarly, no standardised definitions appeared to be given to clinicians. It does not seem surprising therefore, that some studies found that clinician but not self-report measures predicted outcome, or vice versa. Furthermore, without a common understanding of the concept of motivation between clinicians, it is likely that results could be misleading.

A commonly taken approach within the studies reviewed here does appear to be the understanding of motivation as a process, which can be seen in the common application of the Trans-theoretical or Stages of Change Model (Prochaska & DiClemente, 1982). It is likely that the current review has simply captured a representative sample of the studies employing this approach, as it is the most commonly researched theory of motivation to change (Whitelaw, Baldwin, Bunton, & Flynn, 2000). In addition, despite over half of the reviewed studies (58%) utilising this theoretical model, the outcomes continue to lack consistency. Yet, dichotomised representations of motivation could be criticised for being too narrow as the concept has been consistently viewed as a complex one, incorporating a wide range of volitional, environmental, and attitudinal factors (Ward et al., 2004).

As noted previously, the understanding of offender motivation appears particularly influenced by a range of internal and external factors (McMurrin, 2002), and therefore the importance of assessing both an individual's desire to change and their behavioural evidence of change may be essential. As Kroner et al. (2014) astutely point out, behavioural demonstrations of motivation, both to attend treatment and to change a violent lifestyle more broadly, may act as better indicators of treatment completion and outcome.

The impact of motivation on attrition rates was also difficult to interpret due to methodological shortcomings in the reviewed studies. Support for the influence of pre programme motivation on treatment dropout appeared, again, to be divided. Three studies found no significant associations between prior motivation to change and treatment completion. However, the remaining two studies in which attrition was measured, showed that stage of change did predict dropout. These mixed findings suggest that caution is needed when allocating treatment on the basis of low motivation, as it appears that this is not a reliable or consistent predictor of whether an individual will complete the intervention.

The question of whether motivation should be either, or both, a selection criterion for an intervention or a treatment need to be targeted within an intervention (McMurrin, 2002), remains pertinent. The evidence presented within this review provides weight to both the importance of enhancing pre-treatment motivation and the importance of enhancing motivation as a part of the treatment process. However, studies that did employ motivational elements within their treatment programs appeared to have primarily positive results.

2.4.3. Conclusions and Recommendations for Future Research

It was evident from the small number of quality studies available for review that further research is necessary in the field of violent offender motivation. Randomised controlled studies are significantly

lacking, as are those with matched control groups. Reporting and interpretation biases were evident across many of the studies reviewed here, which is a concerning finding and may have wider implications for researchers who plan to focus resources on motivation. It may be that such biases are, in fact, a reflection of a determination to demonstrate the importance of motivation in light of the resources already being allocated in this area.

It is important to note that there have been many studies providing quality empirical support for motivational enhancement prior to and during treatment (e.g. Schumacher et al., 2011), stage-matched interventions (Levesque, Driskell, Prochaska, & Prochaska, 2008), and assessments of treatment readiness (Day et al., 2009). However, this review has added support to the argument that even approaches that are widely used and researched (such as the TTM) do not always produce consistent results. The majority of studies included in this review did demonstrate differences between individuals classified as highly motivated compared to those with lower levels of motivation. However, there were few identifiable patterns in regards to what aspects of motivation are associated with better treatment outcomes. There was tentative evidence that participants reporting higher offence-specific motivation (e.g. motivation to reduce violence against an intimate partner) achieved greater reductions in violence related outcomes. However, too few quality studies were available to support this hypothesis.

Clarification is also required regarding the conceptualisation and assessment of motivation. For example, a systematic review which details the quality of currently available assessments of offender motivation would allow practitioners and researchers to choose the appropriate measurement, and to begin to come to some consensus about the conceptualisation of such a broadly defined construct. Additional research on more recent theories, such as the MORM (Ward et al., 2004), may also be useful considering the comprehensive

conceptualisation of both internal (person) and external (contextual) factors within this model.

Having noted the absence of UK based studies on violence reduction programmes for mentally disordered offenders, there was evidence of the need for additional research in this area. An empirical study was conducted using an existing intervention within the National Health Service known as the Violent Offender Treatment Programme (VOTP). The following chapter therefore describes a retrospective cohort study which aims to explore offender motivation to change prior to participation in the VOTP.

CHAPTER 3

How Far Does Motivation Impact Outcome on the Violent Offender Treatment Programme (VOTP)? A Cross Site Comparison

ABSTRACT

Violence reduction treatment that is responsive to the needs of mentally disordered offenders (MDOs) requires evaluation. Within the UK National Health Service, the Violent Offender Treatment Programme (VOTP) has been developed specifically for MDOs. Evidence suggests that a key element of responsivity, to be addressed by such interventions, is an individual's motivation to change. The current study explored whether motivation, measured by the Transtheoretical model (TTM), affects participant's responses to violent offender treatment. Motivation was measured prior to treatment and its impact was explored in relation to the outcomes of violence risk (Violence Risk Scale; VRS), observable violent behaviour (OVV), and self-reported anger (State Trait Anger Expression Inventory – Version 2; STAXI-II). Supplementary analyses also drew comparisons between one Medium and one High security facility in order to explore whether security conditions influenced outcomes on the VOTP. Results indicated little support for the TTM in determining treatment outcome. Initial exploratory results revealed that participants in high security had higher levels of motivation and made greater improvements regarding violence risk than those in medium security. Methodological limitations are outlined and implications for clinical practice and future research are discussed.

Keywords: violence, motivation, stage of change, treatment, anger, mental illness.

3.1. INTRODUCTION

There is a consensus that a significant correlation exists between the perpetration of violent behaviour and some types of mental disorder (Arseneault et al., 2000). Individuals who commit violent offences are also responsible for a disproportionate amount of crime (Jolliffe & Farrington, 2007). It is therefore becoming increasingly important to provide interventions to Mentally Disordered Offenders (MDOs) that successfully reduce violent behaviour (Day & Doyle, 2010). Evaluating what constitutes an “effective” treatment programme is, however, a contentious issue. In response to this debate Andrews, Bonta, and Hoge (1990) developed the Risk–Need–Responsivity (RNR) model to evaluate treatment efficacy. The RNR model outlines three key areas for assessment and treatment to focus on. These are: the *Risk* level of the individual, the criminogenic *Needs* of the offender, and the delivery of programmes that are *Responsive* to the abilities and learning style of the population (Andrews, & Bonta, 2010). Andrews and Bonta (2006) found that treatment programmes adhering to the RNR principles saw decreases in recidivism of up to 35%, in prison populations. The success of an intervention is nonetheless heavily dependent on the individual targeted for treatment (Klepfish, O’Brien, & Daffern, 2014). One element that has gained considerable attention in the recent literature is the concept of offender motivation or readiness to change.

3.1.1. Motivation to Change

Motivation is an element of responsivity commonly considered fundamental for treating offenders (Sainsbury, Krishnan & Evans, 2004). Professionals working with individuals with mental health problems have an additional hurdle to overcome in regards to patient motivation. This is because mentally ill individuals are more likely to suffer from low motivation, either as a symptom of their illness, or as a side effect of medication (Sainsbury Centre for Mental Health, 2008). Motivating MDOs may, therefore, present a distinct challenge for professionals. The degree to which an individual is motivated to

change could thus be seen as both an indicator of their appropriateness for treatment, and as a secondary goal of the intervention (McMurrin & Ward, 2004).

One widely recognised theoretical paradigm for understanding an individual's motivation to change is the Transtheoretical Model (TTM), developed by Prochaska and DiClemente (1982). The TTM has been applied to a variety of psychological needs, including the treatment of violence (Levesque, Gelles & Velicer, 2000). This paradigm understands change as progression through a series of stages. There is an appreciation that individuals can move fluidly between one of five Stages of Change (SoC). These phases are known as the Pre-Contemplation, Contemplation, Preparation, Action, or Maintenance stages. Individuals in the pre-contemplation stage are not yet ready to think about the prospect of change, or may not see their behaviour as problematic for themselves or others. For those in contemplation, there is a realisation that their behaviour is having a negative impact on their lives or the lives of others. These individuals may recognise the advantages of changing but are yet to commit to taking action, and thus show ambivalence. The preparation stage characterises individuals who have decided to change and have started taking steps to achieve this. Individuals in the action stage are making active efforts to modify their behaviour. Finally, those in the maintenance stage are deemed to have maintained their intended goal for the problem behaviour for a long period of time, even when faced with triggers and relapse.

The TTM is not without its flaws. Critics have noted that the stages of the model cannot be measured as distinct because individuals are often categorised as being in more than one stage at a time (Littell & Girvin, 2002). Littell and Girvin (2002) also argue that with few longitudinal studies available on the TTM it is difficult to ascertain the order in which individuals move through the stages. Other more recent theories, such as the Multifactor Offender Readiness Model (MORM; Ward, Day, Howells, & Birgden 2004), have also been

developed to understand the complexities of motivation. The MORM has shown predictive validity for treatment engagement (Alemohammad, Wood, Tapp, Moore, & Skelly, 2016) and, unlike the TTM, incorporates external factors in the conceptualisation of readiness. Nonetheless, the MORM does not have the same weight of empirical support as the TTM and has shown some limitations in regards to identifying certain aspects of readiness (Sturgess, Woodhams & Tonkin, 2015). Despite criticisms, practical applications of the TTM with offenders suggest that they find the stages easy to understand and personalise. When applied in a high secure hospital, Maden, Williams, Wong, and Leis (2004) noted that professionals and patients found the model useful as it allows “an objective measure of success within a reasonable time frame” (p.10). Studies have also shown that stage-matched interventions, for violent offenders, are more effective than other forms of treatment (e.g. Levesque, Driskell, Prochaska, & Prochaska, 2008).

3.1.2. Motivation in Secure Settings

It is widely acknowledged that the external context of therapy can create an environment un conducive to enhancing motivation (Hodge, & Renwick, 2002). The relational, procedural, and physical security measures used in secure settings can make it difficult to build a trusting rapport with participants, thus a fine balance must be sought between security and rehabilitation (Mason & Adler, 2012). Despite recognition that responsivity and engagement can be affected by the treatment setting, there is a remarkable dearth of literature regarding the differences between institutions in regards to treatment readiness.

Within the two facilities described in this study the environment differs quite significantly. The physical, relational, and procedural security measures within the high security setting are far more stringent. The average length of stay within this facility is also several years longer than within the medium security setting. Allocation to the VOTP also requires greater consideration within the high secure hospital as placing a group of high risk individuals (with a violent

history) together necessitates greater resources in regards to monitoring, assessment, and staffing levels.

In general, patients in forensic environments have noted that a perceived lack of choice and control regarding treatment can be a key factor in disengagement (Sturgess, Woodhams, & Tonkin, 2015). Interviews with patients in a high secure setting also highlight several environmentally specific issues, such as perceptions of a culture of mistrust, which may have led patients to actively resist therapy (Mason & Adler, 2012). These aspects are likely to have a significant impact on motivation within such settings. In high security conditions, the goals of treatment are also likely to be smaller and less time limited, as individuals in these services tend to require longer, more intense treatment on a broader range of issues (Maden, Williams, Wong & Leis, 2004). With this in mind, if it takes longer for an individual in this setting to be deemed ready for treatment (Maden, et al., 2004), it is likely that the individual will be more motivated when they begin treatment, and may thus produce greater gains. Andrews and Bonta (2003) argue that high risk offenders respond better to high intensity interventions than those assessed as a medium or low risk of recidivism. Conversely, it could be argued that for unrestricted patients in medium security, the prospect of discharge is easier to achieve, and that the environment imposes fewer restrictions, allowing greater responsivity. From the sparse evidence outlined above, this study makes the tentative prediction that participants in high security will have higher motivation to progress, and will therefore achieve more positive treatment results.

3.1.3. Measuring Violence, Aggression and Anger

A variety of measures have been employed to quantify change as a result of violent offender treatment. Typically, studies have sought to consider the rates of reconviction or self-reported recidivism at follow up. One tool that seeks to predict the rates of violent recidivism in individuals with a history of violence is the Violence Risk Scale (VRS; Wong & Gordon, 1998-2003). The VRS adheres to the RNR principles

of offender assessment and is designed to assess the key static and dynamic risk factors associated with violence. When used to assess individuals prior to treatment, the VRS revealed that a decrease in risk was significantly associated with a reduction in violent recidivism (Lewis, Olver, & Wong, 2013). Relying solely on the prediction of recidivism, however, provides little information about changes to the individual's attitudes or broader interpersonal interactions.

A more immediate form of measuring behaviour change for individuals in secure settings is by utilising staff observation records. For individuals in long term secure care, this method may provide an important and clinically relevant reflection of progress. Nonetheless, measuring the recorded incidents of institutional violence alone may not accurately reflect an individual's levels of aggression. This is because inconsistencies in the recording and reporting of incidents, especially incidents of verbal aggression, are common in forensic settings (Dolan, Fullam, Logan, & Davies, 2008). Reporting staff members may be influenced by individual biases, such as contextual, perceptual, and attitudinal differences (Spencer & Munch, 2003). Utilising participant observation records as a whole, however, allows a more comprehensive view of an individual's attitudes, emotional regulation, and behaviour.

Many studies have also focussed on changes to the causes of violence rather than the behaviour itself. For instance, the role of anger in the perpetration of violence is widely recognised (Jones & Hollin, 2004). Interventions targeting anger have also been found to be effective at reducing violent and aggressive behaviour (DiGiuseppe, & Tafrate, 2003). Enhancing motivation prior to treatment may therefore reduce an individual's levels of anger and, by proxy, their violent behaviour. Several studies have reported that high readiness prior to Anger Management treatment produces better outcomes on measures of anger (Howells & Day, 2003; Williamson, Day, Howells, Bubner, & Jauncey, 2003). A tool that is often used to measure anger is the State Trait Anger Expression Inventory (STAXI-II; Spielberger, 1999).

The STAXI-II has been found to be a valuable assessment tool for correctional interventions, and decreases in scores on the measure were shown to correspond with reductions in institutional offending (Mansfield, 2008). In the current study, a variety of outcome measures were employed in order to reflect the multi-faceted nature of violence.

3.1.4. The Violent Offender Treatment Programme (VOTP)

Effective interventions and treatment outcome research on MDOs is sparse in the UK (Morgan et al., 2012). The Violent Offender Treatment Programme (VOTP) has been designed specifically for MDOs. The VOTP is a modular programme with group and individual elements. The group targets a variety of criminogenic risk factors and also aims to adhere to the RNR principles regarding treatment efficacy. The authors argue that evidence for the responsiveness of the programme can be seen in the high rates of attendance, participant contributions within sessions, and positive feedback provided (Braham, Jones & Hollin, 2008). Offender risk level is taken into account because the programme length and intensity is increased for participants in the high secure facility, and greater emphasis is placed on each treatment modality (such as social problem solving). A pilot study of the VOTP demonstrated initial support for the efficacy of the programme, revealing that participation in the group was associated with a reduction in risk of violent recidivism, anger, and criminal thinking styles (Braham et al., 2008).

3.1.5. Present Study

The purpose of the current study is to explore whether participants with higher levels of motivation have better results on violence risk, anger, and ward-based behaviour outcomes, following participation in the VOTP. The study explored whether participants in a medium secure facility have different levels of motivation to those in high security conditions. Additional exploratory analyses investigated any differences between the medium and high security groups on all three outcome measures:

Hypothesis 1: Participants with a higher Stage of Change (SoC) score will show greater reductions in violence risk (VRS), following participation in the VOTP.

Hypothesis 2: Participants with a higher SoC score will show greater reductions in self-reported anger (STAXI-2), following participation in the VOTP.

Hypothesis 3: Participants with a higher SoC score will show greater reductions in observable violent behaviour (OVB), following participation in the VOTP.

Hypothesis 4: It is predicted that participants in high security will have higher SoC scores than participants in medium security.

Hypothesis 5: Following participation in the VOTP, participants in high security will show greater decreases in scores on the VRS, STAXI-2, and OVB variables than those in medium security.

3.2. METHOD

3.2.1. Participants

In total, 81 participants were included. Participants comprised those who attended the VOTP groups at either a High Secure (n = 54) or a Medium Secure Hospital (n = 27), and completed the VOTP in full. Power for the total sample (n = 81) was calculated at 0.8. For ethical reasons, it was not possible to use the observational notes of 34 of the participants from the High Secure Hospital. This resulted in data from only 47 (Medium, n = 27; High, n = 20) participants being used to quantify the OVB variable. See Table 6 for additional information.

Participants were referred for the VOTP by their multi-disciplinary team (MDT) if they had a history of violence and were considered at risk of violent reoffending. All participants were adult male offenders with an average age of 33.94 years ($SD = 7.13$) who had been sectioned under the Mental Health Act 1983 (MHA; amended 2007).

Table 6. Percentages Describing Sample Demographics

Demographic	Sub Category	N	%
Ethnicity	White	57	70.4%
	Black	9	11.1%
	Asian	7	8.6%
	Dual Heritage	3	3.7%
	Other	5	6.2%
Hx of Mental Disorder	Schizophrenia	56	69%
	Dual Diagnosis	19	23.5%
	Personality Disorder	1	1.2%
	Other (e.g. mood disorders)	5	6.2%
No. of Violent Convictions	1 -5	58	71.6%
	6-14	20	24.7%
	15+	3	3.7%
Index Offence	Violent Assault	34	42%
	Manslaughter	16	16%
	Homicide	14	17.3%
	Other (e.g. robbery)	20	24.7%
Hx of Institut. Violence	Yes	60	74.1%
	No	9	11.1%
Incidents in Current Institut.	None	30	37%
	1 -5	25	30.9%
	6-14	9	11.1%
	15-29	5	6.2%
	30+	4	4.9%
Hx of Drug Use	Yes	72	88.9%
	No	8	9.9%
Hx of Alcohol Use	Yes	65	80.2%
	No	15	18.5%
Hx of self-harm	Yes	61	75.3%
	No	17	21%

3.2.2. Measures

The Stage of Change (SoC) variable comprised two separate scales. The first scale was created using participant observation notes. VOTP facilitators rated individuals at the start of the programme, during the assessment phase, using predefined criteria for the stages of change according to the TTM. These judgements were based on file reviews, an interview with the participant (minimum of 1 hour in length) and discussions with members of the participant's clinical team.

Participants were allocated to one of four stages. Ratings for each stage were: Pre-Contemplation (PC) = 1, Contemplation (C) = 2, Preparation (Pr) = 3, and Action (A) = 4. The "Maintenance" stage was not included as participants in this stage did not require treatment. An initial pilot revealed that some participants were rated as being between two stages of change. To avoid ambiguity, additional information from the post-treatment report was examined in these cases and researchers selected the stage closest to the participant profile. Due to the retrospective nature of the research, it was not possible to assess inter-rater reliability for this measure which does present a significant limitation.

The second scale was formed from a single item on the Goal Attainment Scale for Violence (GAS-V; Izycky, Braham, Williams, & Hogue, 2010). The GAS-V was adapted from the Goal Attainment Scale (GAS; Hogue, 1994) and has 12 factors. Each factor relates to an aspect of treatment associated with recidivism or reduced positive outcomes. For the purposes of this study, only the "motivation to change behaviour" factor was extracted. This factor was initially rated on a 5-point scale, from -2 to +2, by professionals independent of the VOTP prior to the group commencing. The original scores given for this factor were then translated into SoC scores so that: -2 converted to 1 (Pre-contemplation); either a score of -1 or 0 converted to 2 (Contemplation); +1 converted to 3 (Preparation) and +2 converted to a score of 4 (Action).

Scores from each of the two SoC scales were then combined to produce an average for each participant, using the formula (Facilitator Rating + GAS-V score) / 2 = SoC. The average was then rounded to the nearest whole number to produce the overall SoC score. The interrater reliability for the two scales showed poor agreement, Kappa = 0.15 ($p < .05$). The two scales were therefore combined in order to create a more robust measure of SoC.

The Violence Risk Scale (VRS; Wong & Gordon, 1998-2003)

consists of 6 static and 20 dynamic risk factors, identified by the literature as being strong predictors of violence. The static factors measure past criminal behaviours or conditions (e.g. age at first violent conviction). The dynamic factors reflect changes in risk and include factors such as antisocial attitudes and behaviours. All factors are rated on a 4-point scale (0-3), with higher scores reflecting greater risk. Prior to treatment individuals are rated on all factors and given an overall risk score. Post treatment change is then rated using an adaptation of the Transtheoretical model so that progression on each factor, from a less advanced to a more advanced stage of change, reflects improvement. Progression through each stage is quantified as a .5 reduction in risk scores. For example, movement from Pre Contemplation to Preparation would reduce the score by 1 point. The maximum progression is therefore a 1.5 point reduction. The pre treatment VRS total score minus the total risk reduction score should provide a measure of the individual's overall post treatment risk level.

The VRS has been found to have good predictive validity (Dolan & Fullam, 2007). Treatment change was measured by differences between pre-treatment and post-treatment VRS total scores. A reduction in scores on the VRS is rated using the TTM. It is acknowledged that the overlap between the ratings of the VRS and the author's measure of motivation may appear somewhat tautological. However, the VRS incorporates specific criminogenic factors relating to violence (including static factors), whereas the measure designed by the authors refers to motivation to engage in the VOTP and to change violent behaviour more broadly. Please see Chapter 5 for further details of the psychometric properties of the VRS.

The State Trait Anger Expression Inventory - II (STAXI-II; Spielberger, 1999) is a 57-item self report measure of both the emotional state of anger (State Anger) and the experience of anger as

a personality trait (Trait Anger). The STAXI-II is one of the most extensively used measures for assessing anger in forensic settings (Novaco & Taylor, 2004). It has also been found to be both reliable (Cronbach's α ranged from .79 to .88) and valid (correlations ranging from $r = .25$ to $.32$ for construct validity) as a measure of anger with offender populations (Etzler, Rohrmann, & Brandt, 2014). Both the frequency and intensity of anger are assessed on six scales representing anger expression and control, state and trait anger. All 57 items of the measure are scored on a four-point Likert scale, ranging from 1 (almost never) to 4 (almost always). In the current study, only the "Anger Expression Index (AX Index)" score was employed, as this represents an overall picture of anger expression. Treatment change was measured by pre and post treatment differences.

Observable Violent Behaviour (OVB) is a behavioural measure of violence and aggression based on clinical observations. Violence here is defined as "actual, attempted, or threatened harm to a person or persons" (p.1375; Douglas, Ogloff, & Hart, 2003) and therefore includes both physical and non-physical violence. Key words from observation notes were collated and the occurrence of each word was counted to form a score for each participant. The more frequently these key words were recorded, the higher the individual's score. An element of subjectivity was required in the counting of key words as some notes recorded words in the title or in the text content that did not relate to the individual's risk level. For example, when searching for the word "risk": if a clinician was to state that an individual had made efforts to reduce their risk this would not be counted in the final score. To reduce researcher bias, a second rater therefore assessed 15% of the cases, and was blind to the study hypotheses. The raters used a coding form to enable consistent assessment and counting of the keywords. The interrater reliability for the two raters showed moderate agreement, Kappa = 0.46 ($p < .001$).

Key words were identified using a scoping search of the relevant literature and from an initial pilot study. In total, 69 words were searched including all variations, meaning incidents were also captured within this approach. See Appendix D for a copy of the Case Report Forms (CRFs) used to collate this data.

Key words were calculated for 6 months prior to the group and 6 months after the final session. The period of 6 months was chosen because Prochaska (2008) identifies this as the minimum length of time that individuals need to exhibit maintenance of behaviour change. For those participants who began the VOTP less than 6 months after admission, or were discharged less than 6 months after treatment, the missing period was calculated as an average using the existing word count. This approach was taken to reduce the likelihood that the length of observation notes would differ significantly between individuals. However, there did remain some variation in the number and length of entries which is noted as a limitation.

3.2.3. Procedure

A cohort study design is employed, using repeated measures. All participants were identified through the databases kept for each programme. The data was retrospective so no active involvement was required from participants. Data was gathered from the following sources: electronic observation notes; VOTP databases; and post-treatment progress reports. All data was anonymised prior to analysis.

3.2.4. Data Analytic Strategy

Data analysis proceeded in several stages. Initially, all data was screened for missing cases and outliers were removed. Assumption testing was conducted to check for normality, linearity, homogeneity of variance, and multicollinearity. Violations were found for homogeneity and equality of variance. A more stringent significance level was set ($p < .01$) to account for this. Difference scores were employed as the measurement of change, as opposed to raw gain

scores, due to the wish to explore the difference in average change between the two populations.

Paired Samples T-tests were then used to assess the degree of change between pre and post treatment scores for violence risk (VRS), anger (STAXI) and observable violent behaviour (OVb). Independent Samples T-tests were also used to explore the differences between participants in medium and high security on each outcome measure.

Following this, three two-way between groups ANOVAs were employed which aimed to explore whether participants with a higher SoC have better outcomes, following the VOTP, than those with a lower SoC. Security level was controlled for as a confounding variable. Due to the nature of both variables being categorical, an ANOVA was conducted instead of an ANCOVA.

The prediction that participants in high security will have higher SoC scores than participants in medium security was then investigated using a Chi-Square Test of Independence.

Finally, a one-way MANOVA was conducted to explore the prediction that participants in high security will show greater decreases on the VRS, STAXI-2, and OVb, than those in medium security. A MANOVA was chosen to control for Session Attendance. This variable was continuous in comparison to the dichotomous Security Level variable, hence the need for a MANOVA.

3.2.5. Ethical Considerations

Unfortunately, a matched control group was not possible in this study due to the ethical considerations of deferring the treatment of violent individuals. The retrospective nature of the data would also have made it very difficult to match participants who completed the VOTP in previous years. Ethical approval for the study was granted by the local Research Ethics Committee (NRES Committee Yorkshire & the

Humber - Bradford Leeds) on the 3rd of September 2015 (see Appendix E).

3.3. RESULTS

3.3.1. Descriptive Analysis

Pre and post-treatment descriptive statistics for the psychometric measures are provided in Table 7.

Table 7. Descriptive Statistics for Pre- and Post-Treatment Outcome Measures for the Full Sample

	N	M	SD	Min	Max
Pre Treatment					
VRS	81	54.45*	9.53	29.00	70.00*
STAXI-II	81	34.04	13.38	5.00	71.00
OVb	47	12.77	20.73	.00	129.00
Post Treatment					
VRS	81	46.55	8.77	25.50	70.00*.
STAXI-II	81	29.84	11.30	4.00	63.00
OVb	47	7.52	20.75	.00	140.00
Pre – Post Difference					
VRS	81	-7.87	6.66	-27.00	7.00
STAXI-II	81	-4.65	13.72	-50.00	21.00
OVb	47	-4.86	26.43	-107.00	123.00

* 50+ = *high risk* for violent recidivism (Wong & Gordon, 2003).

3.3.2. VOTP Efficacy

Eleven of the original 90 participants did not complete the programme, nine of whom were excluded due to missing data. The reasons for non-completion were: lack of motivation (n=3) which resulted in disengagement; unstable or deteriorated mental state (n=2); transfer to another unit (n=3); death (n=2); or eviction for disruptive behaviour in the group (n=1). Those participants who were removed from the programme due to “low motivation” were those who had very little attendance and who facilitators found consistently very difficult to engage. Unfortunately, post treatment data was not collected for these participants meaning they could not be included.

Attendance rates were high, with 87.8% of participants attending over 90% of sessions. When measured, SoC was not significantly associated with session attendance $\chi^2(n=74) = 14.31, p = .28, \phi = .44$. However, with the exception of the Preparation stage (47.3%), percentages indicated that attendance increased as SoC increased: PC = 45.5%, C = 61.9%, A = 100%. Furthermore, since completion of the VOTP, 64% of participants were discharged from the two hospitals.

Results from the Paired Samples T-Tests showed that scores on the VRS reduced significantly from pre-treatment ($M = 54.45, SD = 9.53$) to post-treatment testing ($M = 46.55, SD = 8.77$), $t(80) = 10.67, p < .001$. A large effect size was found (.59) using η^2 , and the average decrease in scores was 7.89. Prior to the VOTP 70% of participants scored 50 or above (high risk category) on the VRS compared with 42% following the programme.

There was also a significant reduction in STAXI-II scores from pre-treatment ($M = 34.04, SD = 13.38$) to post-treatment testing ($M = 29.84, SD = 11.30$), $t(80) = 2.70, p = .008$. A medium effect size was found ($\eta^2 = .09$), and the mean decrease in scores was 4.20.

With outliers removed, there was also a significant reduction in OVB from pre-treatment ($M = 10.10, SD = 11.59$) to post-treatment testing ($M = 4.26, SD = 5.96$), $t(44) = 3.56, p < .001$. A large effect size was found ($\eta^2 = .22$), and the mean decrease in scores was 5.84.

3.3.3. Motivation and VOTP Outcome

Results of the three two-way between groups ANOVAs (*Hypotheses 1, 2 & 3*) showed no significant interaction effects between Security Level and SoC, for either the VRS ($F[2, 74] = .63, p = .54$) or the STAXI-II ($F[2, 74] = 1.48, p > .05$). However, a significant interaction effect was found between Security Level and SoC for OVB, ($F[2, 40] =$

3422.99, $p < .001$) meaning results for this variable should be interpreted with caution. See Table 8 for results.

Violence Risk

The main effect of SoC was not significant, meaning that those with a higher SoC did not differ significantly from those with a lower SoC in relation to their risk of violence.

Anger

Participants with a higher SoC did not differ significantly from those with a lower SoC in relation to their levels of self-reported anger.

Observable Violent Behaviour

With outliers removed, a significant main effect was found for SoC, showing that individuals in the Pre-contemplation or Preparation stages had the largest decreases in OVB.

Table 8. Results of the Two-Way ANOVAs Exploring SoC and Outcome

Measure	N	F	p	M	SD
VRS	81	1.61	.19	PC = -5.18	7.32
				C = -8.55	6.73
				Pr = -7.18	5.77
				A = -15.03	4.99
STAXI-II	81	.14	.93	PC = -4.75	10.51
				C = -5.81	14.4
				Pr = -2.20	14.57
				A = -1.50	4.95
OVB	45	5.84	.000*	PC = -10.62	7.37
				C = -2.26	6.78
				Pr = -10.90	18.31
				A = 0	-

* Significant at the .001 level.

Comparisons were also drawn between facilitator rated stage of change and GAS-V scores (SoC rated by the clinical team) to determine which of these approaches was more likely to impact treatment change. The ANOVAs revealed no significant main effects when comparing ratings of SoC for the VRS, STAXI-II, or OVB.

3.3.4. Motivation and Security Level

The Chi-square Test for Independence indicated no significant association between Security Level and SoC, $\chi^2(n = 81) = 5.82$, $p =$

.12phi = .27 (Hypothesis 4). However, the cell count assumption was violated, therefore cells were collapsed into a 2x2 format to rectify this. This was replicated when stages were combined in all possible pairings. When cells were collapsed into upper and lower stages (PC+C versus Pr+A) the results did show a significant association, $\chi^2(n= 81) = 4.13, p = .04$, (Fisher's exact test). There was also a moderate effect size (phi = .26). Percentages indicated that participants in medium security (88.9% PC+C) had significantly lower SoC ratings than participants in high security (64.8% PC+C). No other combinations of stages produced a significant effect.

3.3.5. Security Level and VOTP Outcome

Independent Samples T-Tests revealed that significant differences between Security Levels were only found for the outcome of violence risk. Results showed that participants in high security had significantly greater reductions in violence risk than those in medium security. See Table 9 for further details.

Table 9. Independent Samples T-Tests Assessing Differences in Security Level on Outcome

Measure	df	t	p	M	SD	eta ²
VRS	78.76	3.47	.00*	Med = -5.07	3.46	.01
				High = -9.27	7.43	
STAXI-II	79	- .71	.48	Med = - 6.19	16.21	-
				High = -3.89	12.38	
OVB	45	-1.47	.15	Med = -9.68	22.88	-
				High = 1.65	29.94	

When session attendance was controlled for, results of the MANOVA (*Hypothesis 5*) revealed no significant differences between medium and high security on the three outcome variables, $F(4, 33) = .71, p = .59$, Pillai's Trace = .08, partial eta² = .08. No post-hoc tests were appropriate due to the non-significant results.

Inclusion of the OVB variable and session attendance reduced the overall sample size of this test. Therefore, an additional MANOVA was conducted using only the outcomes of violence risk and anger. Results revealed a statistically significant difference between medium and

high security on the outcome of violence risk, $F(1, 79) = 7.75, p = .007$, partial $\eta^2 = .09$. This result remained significant when a Bonferroni adjustment was applied (requiring a new alpha of .025). On inspection of the means it was revealed that participants in high security had greater reductions in violence risk ($M = -9.27, SD = .87$) than those in medium security ($M = -5.07, SD = 1.23$).

3.4. DISCUSSION

The current study examined whether stage of change influenced treatment outcome for MDOs who completed the Violent Offender Treatment Programme (VOTP). The outcomes measured were violence risk (VRS), self-reported anger (STAXI-2) and observable violent behaviour (OVb). Comparisons were also drawn between two secure hospitals (medium and high) in order to gain an initial understanding of potential motivational differences between security levels.

3.4.1. Programme Efficacy

Although the efficacy of the VOTP was not formally evaluated in this study, initial exploration demonstrated positive results for the overall intervention. Statistically significant improvements were seen for all three outcome measures, after completion of the VOTP, which supports the results reported in the pilot study by Braham, Jones, and Hollin (2008). The current study provides additional, if tentative, support for the effectiveness of the VOTP. Furthermore, this study adds empirically to the research evidence regarding effective treatment programs for mentally ill offenders (Morgan et al., 2012).

3.4.2. Motivation and VOTP Outcome

Primary analyses produced mixed results regarding the relationship between offender motivation and treatment change (*Hypotheses 1 to 3*). Participant stage of change was found to have no significant impact on either violence risk or anger. Review of the means for each measure also revealed few consistent patterns. VRS scores showed greater decreases as SoC increased, as hypothesised, but anger levels

demonstrated the reverse. One explanation for the direction of anger scores is that participants who were more ready to change (higher SoC scores) had lower levels of anger prior to treatment, and therefore had less scope to reduce their anger. However, this explanation loses credibility in light of the results for the OVB variable. There was a significant difference between stages for OVB, but differences lay between unconnected stages: PC & Pr had the greatest decreases. Therefore, treatment change did not correspond to the TTM. One explanation for these inconsistencies is that they may be a side effect of the variation in sample size within allocation to each stage of change. For example, only 2 participants fell within the action stage across the whole sample. Nonetheless, this distribution may be representative of the population because individuals in the action stage are less likely to require such treatment. Other authors also found similar distributions (Levesque, Driskell, Prochaska, & Prochaska, 2008).

A further possibility is that conceptualisations of motivation using the TTM in these settings are unreliable for determining treatment outcome. In part, this may have been due to variations in facilitator ratings of SoC. For example, as noted, some clinicians rated participants as fluctuating between stages, which may have impacted stage allocation. It was not possible to measure these differences due to the retrospective nature of the data. Poor agreement was also found between facilitator and GAS-V ratings. However, efforts were made within this study to enhance the reliability of the SoC variable by combining scales, and by ensuring collateral information was gathered in cases that were divided. Furthermore, as Sturgess, Woodhams, and Tonkin (2015) suggest, in the absence of reliable and valid measures of readiness to change, the use of post intervention reports and patient observation notes is essential.

It may be, that like all stage theories, there are inherent flaws in allocating individuals to distinct stages and that the simplicity of the TTM neglects to account for the complexity of individual and

environmental factors. Certainly, many critics of the model have presented this argument (see Littell, & Girvin, 2002).

3.4.3. Motivation and Security Level

Hypothesis 4 was partially supported by the results. The initial analysis did not produce significant results due to an assumption violation. Nevertheless, collapsing the number of cells revealed that participants in high security received significantly higher SoC scores than participants in medium security. This may be because, in high security, the costs of treatment attrition are likely to be higher and therefore referrals to the programme may be delayed until participants are deemed to be ready. This relates to Maden, Williams, Wong and Leis's (2004) suggestion that the measurement of readiness may be a longer, and more complex, process in high security.

3.4.4. Security Level and VOTP Outcome

Hypothesis 5 was also partially supported. Significant results were not found initially. However, when the OVB variable was removed to increase sample size, this revealed that participants in high security showed significantly greater reductions in violence risk than those in medium security. This corresponds with the evidence reported by Andrews and Bonta (2003), that higher risk individuals benefit more from treatment than lower risk individuals. Session attendance was initially controlled for which limits the likelihood of programme intensity impacting the results. It is possible however, that the time elapsed between ratings was enough to make the pre-post changes significantly different for those in high security. However, this is less likely considering that individuals in high security began with higher VRS scores. This study has highlighted that further research is needed regarding the impact of environmental factors on offender motivation.

3.4.5. Methodological Limitations

The key limitation of this study is the absence of an untreated control group. Researchers have made the valid argument that dynamic

changes cannot be causally attributed to treatment participation without comparison with controls (Klepfish, O'Brien & Daffern, 2014). Therefore, it cannot be determined conclusively that in-treatment gains were related to treatment completion, as opposed to other factors, such as the passage of time. Nonetheless, as previously discussed, a no-treatment control group would not have been possible with a retrospective study, neither would it have been ethically justifiable to withhold treatment from such high risk offenders.

A further limitation was that the OVB data displayed significant variations in the rates of violence and aggression between individuals. This could be attributed to reporting biases, such as contextual factors and the perceptions of the reporting staff member, as suggested by Spencer and Munch (2003). However, attempts were made to reduce reporting bias for the OVB variable through the use of key words as opposed to incident reports alone, and by obtaining inter-rater reliability. There was also a variation in the length of observation notes between individuals which may have impacted outcome. Controlling for this by calculating the number of words per individual may have helped to provide some consistency.

Restrictions on the author's ability to measure the inter-rater reliability and validity of the SoC variable is also a significant limitation. Without this, doubt can be cast upon the interpretation of the results. Attempts to explore the impact of stage of change were made in the comparison between the facilitator-rated and the GAS-V aspects of the SoC variable. Even when these two elements were compared there was still no significant influence of stage of change on outcome. This suggests that the results may not simply be explained by the lack of reliability for the SoC scale.

Lastly, sample sizes were small in some analyses, leading to low statistical power to detect meaningful relationships, and limiting the generalisability of the results.

3.4.6. Future Research

In moving forward with violent offender treatment, there is an argument for combining theoretical approaches to readiness. McMurran and Ward (2004) make the point that individual motivation may be seen as either (or both) a selection criterion for treatment, or a treatment need to be targeted throughout the intervention. This study has added weight to the argument that the TTM may be a weak predictor of treatment change. However, the TTM as a tool within a rehabilitation programme can be extremely useful, as Maden, Williams, Wong and Leis (2004) noted, and may in fact be more accessible for offenders than a comprehensive model such as the MORM. Nonetheless, in regards to the assessment of readiness it may be more worthwhile for clinicians, and future facilitators of the VOTP, to consider the use of more comprehensive models, such as the MORM, in order to ensure that the complexity of factors affecting motivation is fully captured. This may be particularly pertinent in secure psychiatric settings where the quantity of factors impacting motivation (e.g. medication or section restrictions) is likely to be greater, and so perhaps more inclusive models are required to reflect this complexity.

To explore the clinical relevance of the VOTP within a secure psychiatric setting, it was decided that the adaptation of the programme to an individual format might provide an enhanced understanding of the intricacies of offender motivation and behavioural change. The following chapter therefore outlines a case study approach in which the VOTP was modified to apply to individual offence work. Details of the individual's case and the process of assessment, intervention, and outcome, are all discussed.

CHAPTER 4

Individual Offence Work informed by the Violent Offender Treatment Programme (VOTP): A Case Study

ABSTRACT

The Violent Offender Treatment Programme (VOTP) is one of the few programmes currently available that is designed specifically for use with mentally disordered offenders. This study describes the adaptation of the programme into an individual context, in order to address the offending behaviour and related attitudes of an adult male inpatient. The case of patient 'M' is described here from the point of assessment, through to the outcome of the intervention. Although some improvements were observed over the course of the work formal assessments did not reveal any clinically significant changes. Results are discussed in relation to the individual case and the wider research context.

4.1. INTRODUCTION

In general, individuals who commit violent offences have been found to have higher rates of re-conviction than non-violent offenders (Loza, Conley, & Warren, 2004). Within psychiatric inpatient populations incidents of violence and aggression are also becoming an increasing problem for both patients and staff (Bowers et al., 2011). Nonetheless, the overall proportion of violence attributable to individuals with a diagnosis of mental illness is very low and the majority of individuals with a mental illness do not commit violent acts (Glieb & Frank, 2014). Other factors have therefore been found to influence violent behaviour within psychiatric populations. The association between illicit substance use and psychotic disorders, for example, is well supported (Schuckit, 2006). The use of illicit substances is a prevailing problem within forensic populations (De Burca, Miles & Vasquez, 2013). The risk of relapse and hospitalisation

is also significantly higher in people with coexisting substance misuse, and mental health problems, compared with other inpatients who do not misuse substances (NICE, 2011a). Alongside substance abuse, many other variables have an impact on mental illness and violent offending. Those individuals who do perpetrate violent crimes continue to be a priority for treatment within forensic services; whether their offending can be attributed to a single factor, or a range of biological, social, and psychological influences (Hodgins, 2002).

The following Case Study takes a Biopsychosocial perspective on the case of patient M, a violent offender with a mental health diagnosis, who undertook individualised treatment for his violence. The Case Study describes the assessment, formulation, and treatment of M's violence and the outcomes of the intervention. The Violent Offender Treatment Programme (VOTP) was adapted to apply on an individual basis and therefore results are discussed in the context of the intervention. It was anticipated that M would show reductions in scores on all measures following offence-focused treatment. The greatest decreases were anticipated with the Violence Risk Scale (VRS; Wong & Gordon, 1998-2003) and the Psychological Inventory of Criminal Thinking Styles (PICTS; Walters, 2001) due to the targeted nature of the intervention.

4.1.1. Case Synopsis

Patient M was a Caucasian male from a working class background who had a psychiatric diagnosis of Delusional Disorder, F.22 (ICD-10; WHO, 1993). He was transferred from prison under the Mental Health Act (MHA, 2007) and was in the last stage of his treatment pathway within the current facility. Informed consent for participation in the study was gained early on (see Appendix F).

The index offence included two incidents of Affray and Possession of a Bladed Article. These incidents involved M threatening his brother with a knife and getting into a physical altercation with him, which resulted in minor injuries to both parties. The second incident occurred the

following day, and involved M displaying the knife in a threatening manner in front of several members of the public. An initial charge of attempted robbery was also given. However, M made a plea bargain and so was not convicted of this offence. M was originally sent to prison on conviction but his mental health deteriorated so he was therefore assessed and admitted to a secure hospital.

M experienced some early traumatic events in his life when his parents separated leading him to move between homes. M also experienced bereavement early on when he lost two siblings in a traffic accident. M's teenage years were characterised by prolific substance use and the perpetration of acquisitive crime. His records indicate that he received 17 convictions for 38 offences. In addition to the index offence, M also has two other previous convictions of a violent nature. The onset of M's delusional symptoms was apparent in his late twenties and the symptoms were characterised by beliefs that he was having an intimate relationship with a celebrity. These extended to him writing letters to her and planning meetings. He also asked his family for money to buy gifts for her, which seems to have been a catalyst to the argument that culminated in the index offence.

4.1.2. Case Formulation

Although M's past violence could not be described as common, the violent nature of his index offence and his attitudes towards this offence reflected an outstanding risk. Many theories exist to explain how and why such criminal attitudes and behaviours are manifested. The Bio-psycho-social model, a theoretical model originally proposed by George Engel (1977, 1978), has been developed over time to apply to a range of behaviours, including violence and aggression (Dodge, & Pettit, 2003). The model has been said to provide a broad and integrated framework for understanding behaviour (Melchert, 2014). An integrated approach was chosen for the formulation because this method makes identification of assessments and interventions more tailored to the individual's needs (Ingram, 2006).

The integrated approach seemed most appropriate for M's case because it allowed a systematic way of formulating the multiple factors that contributed to the development and maintenance of his offending. This framework was also helpful in M's case, as there appeared to be a highly medicalised approach to his care initially. From a Biopsychosocial perspective, behaviour should be seen as a product of biological influences, the socialisation of an individual (including their social environment), and the psychological factors that develop over time.

The key biological element of M's case is evident in the emergence of the strong delusional beliefs regarding his relationship with a celebrity and later delusions, such as believing he was a fictional character. Although the delusions themselves were not of a directly harmful nature, they did lead M to act in a bizarre and unusual way; behaviours which led to conflict and intimidation. The association between delusional disorder and violence is has become more widely researched in recent years as our understanding of mental illness has expanded. Teixeira and Dalgarrondo (2009) found that, contrary to popular belief, delusional patients who are frightened or who have other negative effects associated with delusional ideas appear to commit fewer violent acts.

A further biological risk factor noted in this case, was M's use of amphetamines and cannabis prior to the index offence. Although M did not have a diagnosis of Substance Induced Psychosis, there is a high likelihood that his drug use exacerbated or perpetuated his symptoms. As is demonstrated in M's case, substance use has also been found to severely affect an individual's decision making abilities (Grant, Contoreggi, & London, 2000). M's use is likely to have impacted his consequential thinking, problem solving abilities, and subsequent behaviour.

The social elements that have appeared most prominent in the formulation of M's violence have been his familial relationships, especially an element of rivalry with his brother. M's brother appeared

to engage in criminal and violent activity, often encouraging M's involvement as well. Such anti-social tendencies were later reinforced by M's peers, many of whom were also involved in drug use and violent behaviour. In the absence of a father figure, M appears to have mimicked their behaviour as substitute role models. Experiences in the army cadets as a teenager also appear to have developed M's distorted beliefs about the male role in society as well as normalising the use of violence. As Gorman-Smith, Henry, and Tolan (2004) highlight, witnessing and experiencing violence in adolescence is likely to lead to the later re-enactment of violent behaviour. A link which may be particularly salient for M.

In the case of the index offence, M was also provoked by his brother, who was criticising his beliefs and potentially undermining his masculinity. This is likely to have triggered feelings of anger and resentment which M may have found difficult to control. Social aspects are also likely to have influenced the development of M's core beliefs around entitlement and respect, thereby resulting in his use of violence to resolve the conflict and re-establish a hierarchy.

The psychological factors present were also highly influential for M, particularly the "Defence Mechanisms" M employed both before and after the index offence. Anna Freud (1936) proposed that adults develop Defence Mechanisms in order to protect the ego, and the perception of self, from judgements that may be unacceptable. A primary protective mechanism for M seemed to be the existence of cognitive distortions regarding violence, especially minimisation and justification of his own behaviour. Cognitive distortions are a prominent element of M's case and are widely recognised as an important dynamic risk factor. For example, in a study by Wallinius, Johansson, Larden and Dernevik (2011) cognitive distortions significantly predicted self-reported antisocial behaviour.

Although the suppression of impulses and the psychological mechanisms used to defend the ego are important for M, impulsive behaviour also appeared to be a key factor in M's violence. A number

of studies have linked impulsivity to aggressive and violent behaviour (e.g. Barratt & Felthous, 2003; Seager, 2005). In defining impulsivity, Patton, Stanford, and Barratt (1995) separated impulsivity into three components: acting on the spur of the moment, not focusing attention on the current situation, and a lack of planning or careful thinking. All of these elements appear to be evident around the index offence. Furthermore, M's impulsivity also appeared to be directly linked to his substance misuse. Indeed, Allen, Moeller, Rhoades and Cherek (1998) demonstrated that individuals with a history of drug dependence had higher levels of impulsivity than controls with no history of drug use. Therefore, M's impulsivity may have been a product of his substance use rather than a trigger for it. From a biological standpoint, the disinhibiting effects of the substances, and M's delusional beliefs, may have facilitated aggressive behaviour by increasing his levels of impulsivity and reducing his ability to think rationally.

There are some important protective factors to be considered in M's formulation. For example, he has consistent support from his mother and has developed a positive relationship with his children over recent years. Since his hospitalisation, M appears to have taken more responsibility for his role as a father and has made efforts to think of others' needs above his own. Furthermore, M is currently mentally stable and has shown consistent compliance with his prescribed medication. M also demonstrates a good level of insight into his mental illness, recognising that his delusional beliefs were not real.

To represent the integrated nature of the formulation and to demonstrate the input of the VOTP the formulation is also represented diagrammatically as an offence cycle (see Appendix G). This format enables consideration of all the risk and protective factors, their associations with one another, the chronology in which they are likely to develop and the way in which the cycle is reinforced by certain behaviours and attitudes.

4.2. ASSESSMENT

When M was moved to the final stage of the hospital it was evident that his risk of recidivism had not yet been fully addressed. This was ascertained from discussions with members of the Multi-Disciplinary Team (MDT) and information from case files, including previous treatment reports. The case was therefore referred for a clinical formulation and assessment of M's forensic and psychological needs. Initially, it was recommended that M complete the Violent Offender Treatment Programme (VOTP). The VOTP is a modular group programme (described in more detail in Chapter 3) which runs for approximately seven months. Therefore, the MDT felt that it would be unethical to extend M's detention for an additional year to complete this group. Instead, individual offence work was delivered by the thesis author. It was decided that this could be informed by the VOTP, which would ensure all the relevant risk factors were covered within a shorter period.

In addition to several clinical interview sessions, the assessment process involved communication with members of the MDT about their work with M. This enabled incorporation of the perspectives of professionals from a range of disciplines and gave an indication of any outstanding treatment recommendations, risk issues, and protective factors that helped to create the formulation. Other methods were also employed to inform the assessment, including observation of M's behaviour on the ward and from staff records, and the review of legal records, such as witness statements and formal psychological assessments.

A small battery of psychometric assessments was administered. These included the Violence Risk Scale (VRS; Wong & Gordon, 1998-2003) which is designed to assess an individual's risk of violent recidivism. The assessment measures both static and dynamic factors and provides clinicians with treatment targets in relation to reducing violence. This assessment tool was selected because it has been evidenced as valid with forensic patients and has a good level of

predictive validity ($AUC = .73$, $p < .001$) and internal consistency ($\alpha = .93$; Wong & Gordon, 2006). The VRS was felt to be the most appropriate measure available for this case, due to its ability to measure treatment change and assess motivation. Scoring of the factors indicated that M was in the "high risk" category for violent recidivism with a score of 55 (50 or above indicates high risk; Wong & Gordon, 1998-2003). Evidence was collected and the scale was scored alongside another trained professional, who was not involved in M's care, in order to reduce researcher bias. The item of "Emotional Control" was omitted pre-treatment due to insufficient information, so scores were pro-rated. The main areas highlighted by the scale for treatment focus were; "Mental Illness", "Release to High Risk Situations", "Cognitive Distortion", and "Compliance with Supervision". These initial results allowed for prioritisation of treatment need and adaptation of the intervention plan.

The Social Problem Solving Inventory – Revised (SPSI-R; D’Zurilla, Nezu & Maydeu-Olivares, 2002) is designed to measure an individual's thoughts, feelings and actions, when faced with everyday social problems. The measure is a 52-item inventory with an overall total score and five separate subscales. These subscales measure the dimensions of Positive Problem Orientation (PPO), Negative Problem Orientation (NPO), Rational Problem Solving (RPS), Impulsivity/Carelessness Style (ICS), and Avoidance Style (AS). The SPSI-R provides one of the most comprehensive assessments of the contemporary theoretical components of social problem solving (Dreer, et al., 2009). Reliability and validity have also been consistently reported for this measure (D’Zurilla, Nezu & Maydeu-Olivares, 2002). This assessment was identified as being appropriate in this case in light of M's difficulties with avoidance, conflict resolution, and peer pressure.

The Barratt Impulsivity Scale -11 (BIS -11, Patton, Stanford & Barratt, 1995) is a self-report questionnaire designed to assess the degree to which individuals act and think impulsively. Because of the association between violence and impulsivity, violent offenders tend

to score higher on the BIS-11 than non-violent offenders (Smith, Waterman, & Ward, 2006). However, M's scores on this measure were below average (56 out of 120) compared to the general psychiatric population ($M = 69.74$), indicating low levels of impulsivity. This finding added weight to the hypothesis that M's impulsivity had previously been closely linked to his substance use and mental disorder, both of which were being managed effectively in the secure hospital environment. There was also some evidence of socially desirable responding on this questionnaire, and others, which may have influenced results.

The Psychological Inventory of Criminal Thinking Styles (PICTS; Walters, 2001) is an instrument designed to measure thinking styles and behaviours associated with criminal conduct. Both general criminal attitude measures and measures of violent attitudes have been found to predict recidivism (Polaschek, Collie, & Walkey, 2004). The thinking styles scales have also been found to have good levels of reliability and validity in adult offender populations (Palmer & Hollin, 2003). The PICTs gives a broad reflection of a range of anti-social attitudes and therefore provided a useful overview of M's current and historical thinking styles. The overall profile was found to be valid but M's pre-treatment scores indicated that his criminal belief system was either weak or hidden (T-score lower than 55). This was viewed in light of his tendency to employ impression management and therefore was considered in conjunction with the VRS results.

In addition to the formal assessments, a "hassle log" was completed each week to measure M's propensity to experience and cope with daily issues. The majority of M's hassles involved frustration with hospital rules or procedures, such as being asked to complete chores. This may have reflected some underlying attitudes regarding aversion to authority and a sense of entitlement.

4.3. INTERVENTION

Elements of responsivity were considered regularly within the intervention. Being responsive requires a therapist to match the content and pace of sessions to specific client attributes and abilities to ensure that the treatment maximises learning (Ward, Day, Howells, & Birgden, 2004). Responsivity is also essential in order for treatment to be ethically robust (Andrews & Bonta, 2006). Howells, Watt, Hall and Baldwin (1997) identify several important issues that a therapist should address before commencing violent offender treatment. One key element they pinpoint is the offender's motivation to change. This was an important aspect identified with patient M as it became evident during the assessment and formulation process that M's reduced internal motivation was a potential barrier to treatment. Low levels of motivation are a common feature with offender treatment (McMurran, 2002), but require the therapist to be responsive in order to initiate and maintain engagement.

Although M's internal motivation was limited his external motivation was observable throughout. This was evidenced by his consistent and punctual participation in sessions and repeated reference to the length of the work and imminent discharge. Intrinsically however, M appeared to see little real need to change which was evident from his continued justification and rationalisation of his behaviour. Some researchers have argued that intrinsic motivation is more important than extrinsic motivation to establish long term change (e.g. Curry, Wagner, & Grothaus, 1990). Motivational Interviewing (MI; Miller, & Rollnick, 1991) techniques were therefore applied in order to "roll with resistance" and encourage self-challenge. Using motivational techniques also helped to facilitate the development of the therapeutic rapport which, as Okiishi et al. (2006) emphasise, can be one of the most important predictors of treatment outcome. Cooper (2008) also highlights that the adopted methodology, approach and characteristics of the therapist have an essential influence on engagement. Thus, there was a need for consistent reflective practice,

an awareness of interpersonal dynamics, and respect for environmental influences within the therapeutic process.

It is well known that successful treatment outcomes with offenders are characterized by targeting multiple needs (MoJ; 2013). A VOTP informed approach was therefore chosen because it aims to do just that. The VOTP was designed specifically for Mentally Disordered Offenders (MDOs) and therefore takes into account issues of risk, need, and responsivity (Bonta, & Andrews, 2007) that are relevant to this population. The programme is also developed in line with the current evidence on the primary risk and protective factors identified for violence and aggression. Within the offence work, efforts were also made to replicate the treatment phases outlined in the programme. Braham, Jones and Hollin (2008) entitle these phases: "Getting on Board"; "Developing Awareness and Problem Ownership"; "Skill Development"; and "Skills Practice and Maintenance". These phases are designed to move the individual through the stages of change whilst also incorporating personal reflection and skills acquisition.

The VOTP is also underpinned by the Stages of Change model (Prochaska & DiClemente, 1983) which is particularly relevant for M in light of his fluctuating motivation. Despite criticisms that the model does not ensure allocation into discreet categories (Littell & Girvin, 2002), in this intervention, application of the model worked well. The model was accessible to M in diagrammatic form and was useful as a reference point for progression. Specific elements of the programme focus on mental illness, cognitive distortions, and substance use, all of which were highlighted as areas of treatment need by the VRS and within M's formulation. Other important contributory factors, such the formation of masculine values, peer influence and impulsivity are also addressed within this framework. With M being so close to discharge, back into the community, the relapse prevention phase was also essential here. As Joliffe and Farrington (2007) point out, interventions that contain a relapse prevention element are generally more effective than those that do not.

There were a total of four assessment and formulation sessions prior to the structured index offence work commencing. As far as possible, the aims of the work were formed in collaboration with M. Aims were made achievable and realistic to increase engagement, as well as being provided in language that was free of “jargon”, to suit M’s educational level. Session plans were designed in line with M’s formulation, carefully selected aspects of the VOTP, and the results of the formal assessments.

Caution was needed in order to maintain the integrity of the programme. Specific aims were therefore assessed for applicability to M’s case and maintained wherever possible. The overall objectives for each module were preserved to ensure that the focus of each topic remained similar. The treatment phase approach was also followed (please see description in Chapter 3 under section 3.1.4) so that there was fluidity in the process of transitioning from building motivation, through to psycho-education and then ending with skills acquisition and relapse prevention. Group activities were adapted to apply to an individual where possible, however in some cases using the same approach would not have been appropriate.

In adherence with ethical practice guidelines, the sessions began with an explanation of the boundaries of the therapeutic relationship (BPS; 2009). This was found to be very useful in light of the pressure placed on the work by the MDT and receiving team. By reinforcing these boundaries at necessary points it enabled the therapeutic process to remain collaborative. Transparency was also maintained throughout and regular feedback on M’s progress was provided, both to M and to the MDT. A brief summary of the work is provided below.

Module 1: Looking at Myself

This module aimed to establish M’s current attitudes to crime and violence and build his internal motivation to change. It consisted of three sessions and involved motivational techniques intended to create dissonance between pro-social and anti-social lifestyles. Within

this module, M was also encouraged to consider aspects of his future environment, roles, and lifestyle that may increase risk. Self-monitoring and the stages of change model were also introduced here.

Module 2: Masculinity and Violence

The aim of this module was to enhance M's understanding of the links between masculinity and violence, and provide psycho-education on how masculinity can be expressed in a pro-social way. Although only one session was allocated to this topic repetition of similar themes were maintained throughout due to the wealth of literature on the links between masculinity and violent behaviour (see Taylor, das Nair, & Braham, 2013).

Module 3: Understanding Thoughts, Feelings & Behaviours

The third module aimed to encourage the development of insight into cognitive distortions, such as minimisation, justification, and entitlement and help M to challenge these. M's current high risk thoughts, feelings, and behaviours in relation to offending were also explored. Three sessions were allocated to this topic due to it being identified as a treatment need by the VRS. In the third session, techniques such as mindfulness, self-talk, and relaxation were presented in order to build additional coping strategies. These strategies were referred to throughout the work.

Module 4: Vulnerabilities to Violence

Three sessions were allocated to this module in order to cover essential elements regarding M's vulnerabilities to violence and offending. In particular, the sessions focussed on substance misuse and mental illness, and aimed to further develop his skills to cope with these effectively. Aspects of relapse prevention were introduced here. Elements of psycho-education were also used to build M's insight into his diagnosis and related symptoms, as recommended by NICE Guidelines (2011b).

Module 5: Learning to be Effective

This module aimed to teach M essential skills, such as assertiveness and problem solving, in order to enhance appropriate responses to conflict and increase consequential thinking. Problem solving techniques were based on those developed in the 'Stop & Think!' programme (McMurrin & McGuire, 2005). A five stage model was used to break down the process and an emphasis was placed on avoidant problem-solving styles, as these were felt to be more relevant to M in light of his substance misuse history. Four sessions were required in order to ensure full understanding of these skills and allow M to practice these both within and between sessions.

Module 6: Cycle of Violence

The penultimate module included two sessions designed to form an offence cycle from the work already covered. The cycle was formed step by step and time was spent ensuring that M understood the links between the predisposing, precipitating, perpetuating, and protective factors.

Module 7: Relapse Prevention

Two sessions were also allocated to the completion of the final offence relapse prevention plan. Similar to the offence cycle the relapse prevention plan aims to evidence consolidation of skill acquisition and existing coping strategies.

Of the 18 sessions planned M attended every one without fail. Despite his dedicated attendance, an awareness of the sensitive nature of the topic was necessary throughout the work. This was particularly important when challenging M's cognitive distortions of blaming because this meant encouraging him to take responsibility for his actions, which can often elicit emotions such as shame and guilt (Sanderson, 2015). Despite this awareness, there was only one point at which M appeared visibly affected by the work. In this instance his emotions were validated and gently explored. In addition, a debrief was given at the close of the session and ward staff were informed of his reactions in order to provide support if necessary.

4.4. RESULTS

It was evident that M's major motivation for completing the work was to be discharged from hospital. Therefore, any changes observed should be considered in light of the potential for impression management. In regards to the stages of change model, it was noted that there may have been points at which M moved into the "Preparation" stage of change but in general he remained within the "Contemplation" stage throughout the work. The primary risks for M remain in his cognitive distortions around his offending. His continued use of justification, minimisation, and blaming represent a lack of full understanding of the severity of the offence, and an unwillingness to take complete responsibility for his actions. A key area of development also seemed to be in respect to his consideration of others, and an expression of empathy in regards to the witnesses of his offence. M did still have difficulty comprehending the wider consequences of his behaviour for others. This, combined with his fluctuating motivation to change his lifestyle, is likely to increase his risk of future recidivism.

The results of the formal assessments conducted pre and post treatment reflect this opinion to some extent (see Appendix H for full results). Clinical significance was calculated using the Reliable Change Index (RCI). Following completion of the work M scored 47.5 out of 78 on the VRS, compared to 55 prior to treatment. This reduction in his total score places M in the "medium" risk category of violent recidivism (scores of 35-49). Despite moving from the high to medium risk category, the change in M's scores was not clinically significant. The reduction does represent a notable decrease in risk of violent recidivism, which could be attributed to treatment, however the hypothesis that significant reductions in risk would be found was not supported.

Results of the Barratt Impulsivity Scale -11 showed very little change (a decrease of one point from 56 to 55). These results indicate that

the work had little impact on M's levels of impulsivity. Although it was predicted that the intervention would have an impact on all outcome measures, this result is not unexpected in light of the reduction in mental health symptomology and the absence of substance misuse.

Similarly, differences in the 'Current' criminal thinking styles subscale on the PICTS indicated that M does not currently identify with criminal belief systems. A reduction of 55 points was seen in M's total score on the PICTs, but no base rates were available to assess the significance of this decrease. Only the subscale of "Superoptimism" was elevated on the assessment pre-treatment, which reflects M's belief that he will be able to postpone or avoid the negative consequences of lifestyle choices.

Results from the SPSI-R were slightly above average for the population, both before and after treatment, indicating generally good levels of social problem solving. Again, it was acknowledged that this result was likely to be influenced by the absence of substance use, lack of active psychotic symptomology, and the controls of the secure environment.

Despite the non-significant results, M demonstrated minor improvements in a number of areas over the course of the offence work. This included development of his awareness of the cognitive distortions and signs of an ability to challenge them. In addition, his insight into his delusional disorder saw some expansion, as did his ability to consider elements of substance use relapse prevention. Staff reports of M's general attitudes were more positive towards the end of the sessions. In particular, when spoken to about the index offence by his named nurse, he was noted to voluntarily indicate his responsibility for his actions. In the weekly monitoring log, M also reported fewer 'hassles' towards the end of the sessions, as well as frequently employing pro-social problem solving skills between sessions.

4.5. DISCUSSION

In regards to the formal assessments, none of the psychometric or risk assessment measures produced reliable change. This was contrary to predictions and could be explained by a number of factors. Firstly, it is likely that there is an element of social desirability in M's responding which may have resulted in scores being higher (or lower) than expected. This was evident from observations of M's behaviour and subtle verbalisations, such as his insistence that he never gets angry. However, in hindsight a more formal assessment of these hypotheses may have been helpful to provide further information and to move forward with M in his understanding of the need for honesty. An assessment like the Paulhus Deception Scale (Paulhus, 1998) may have been useful.

It seems however, that one of the primary factors in M's non-significant results was a lack of intrinsic motivation. Despite the efforts made, M's willingness to move from the Contemplation stage of change in regards to his violence, and more generally his lifestyle, was limited. Prochaska and Levesque (2002) characterise individuals who appear stuck in this stage as being in "chronic contemplation" (p.58). They also highlight that many treatment programmes are often ineffective because they are action-orientated and therefore aim to treat individuals before they are ready to change. Although the efficacy of stage-matched interventions has been brought into question (Bridle et al., 2005), it was apparent that M may not have been ready to fully commit to long-term behavioural modification. If circumstances had allowed, it may have been far more effective to engage M in several motivational enhancement sessions prior to commencing the offence work. In this case, there were organisational issues that made this consideration more complex, such as the MDT's perspective that M's risk level was being over exaggerated. Due to M's rapid discharge back to the community, there was also little opportunity for follow up assessments, support, or monitoring after the work. A follow up in the community would have been highly

informative in terms of whether M was able to apply the skills learnt within a high risk environment.

It is also possible that the strength of M's cognitive distortions about his past offending acted as a barrier to his rehabilitation. As Chambers, Eccleston, Day, Ward, and Howells (2008) reflect, offender readiness to change can be obstructed if the individual believes that they already know the reasons for their behaviour, or are justified in their actions. Consideration in future could be given to specific assessment and measurement of self-serving cognitive distortions. Tools such as the "How I Think Questionnaire" (HIT-Q, Barriga, Gibbs, Potter, & Liao, 2001) may be of use for instance. In addition, more emphasis could have been placed on this element within the intervention, including further psycho-education around Defence Mechanisms and the purposes they serve.

There is also the possibility that converting the VOTP to an individual format reduced its efficacy in this case. The aims of the programme rely on an increased length and intensity of treatment, and the capacity to practice skills for an extended period. Although efforts were made to maintain programme integrity, if greater resources were available, perhaps more emphasis could have been placed on skill acquisition. No published attempt to convert the programme to an individual format currently exists, therefore it is difficult to compare results with other research. The outcomes recorded here were certainly at odds with the positive results gained in the pilot study of the VOTP by Braham, Jones, and Hollin (2008), who reported significant improvements on a variety of measures, in a sample of 14 offenders. Only 18 treatment sessions were conducted with M so it may be that the dosage was not fully consistent with his needs, especially in light of him being placed in the "high risk" category on the VRS. In their systematic review, Joliffe and Farrington (2007) found that interventions that were longer in duration had better outcomes in relation to reducing recidivism, especially for high risk offenders. Future adaptation of the VOTP to an individual context may thus require greater resources to achieve this.

Important reductions were nonetheless seen in M's scores for risk of violent recidivism (VRS) and criminal thinking styles (PICTs), even if these were not clinically significant. The offence work created dissonance in cognitive distortions and enabled M to challenge some of these distortions, however there remains an existing risk of recidivism if such distortions continue. Furthermore, it is important to note that no violent incidents were recorded either during or after the offence work. M engaged in some minor disputes with his peers but these were often resolved rapidly. More importantly, M did not return to substance misuse despite having unescorted leave and knowing the local area well enough to seek out risky individuals. It remains likely that M was able to make these changes due to the extremity of his will to be discharged, the regular drug testing that occurred within the hospital, and the rapid responses of nursing staff to resolve conflicts. Nonetheless, there is some evidence in these behaviours that M had the capacity to change and maintain this, even if the motivating factors were external.

Future research is necessary regarding the adaptation of group treatment to fit the needs of an individual. Consideration, by the authors of the VOTP, of creating an individual manual for these purposes may be important if such adaptations are likely to occur in future. Additional case studies, with offenders completing the VOTP group might also shed additional light on the aspects of the programme that resonate with individuals. This would also enhance the responsiveness of future versions of the VOTP.

Over the course of completing the empirical study it was noted that the Violence Risk Scale (RS; Wong & Gordon, 1998-2003) was used widely throughout both the medium and high security facilities. However, little seemed to be known about its psychometric properties and how it compared to other more widely used violence risk assessment tools, such as the HCR-20^{v2} (Webster, Douglas, Eaves, & Hart, 1997). A review of the tool is therefore described in the following chapter which provides a critique of the VRS in the context of forensic practice.

CHAPTER 5

Critique of a Psychological Method or Assessment (C85F14)

A Critical Appraisal of the Violence Risk Scale (VRS)

ABSTRACT

The Violence Risk Scale (VRS) is a structured professional judgement risk assessment tool designed to predict the likelihood of violent recidivism. Despite being widely used within forensic settings, there is currently little research on the VRS that is not author led. This paper reviews the psychometric properties of the VRS, providing a critique of the tools reliability and validity. Reference is made to the clinical utility of the VRS for its intended purpose of predicting violence risk in forensic populations. Recommendations are made for adaptations which may bring the tool in line with other, more evidence based, assessments. Overall, the VRS was found to have a good level of predictive validity and internal consistency across a small range of populations. More longitudinal and community based research is required, in addition to further evidence of validity by unaffiliated researchers. Practical implications, limitations, and recommendations for future research are discussed.

5.1. INTRODUCTION

Reliable risk assessments are fundamental in forensic settings for the purposes of risk management, treatment planning, and the measurement of change in violent behaviour (Hanson, 2005). Decisions and predictions about violence risk can also have far wider public and legal implications (Douglas & Skeem, 2005). However, it is

argued that prevention and rehabilitation should be the ultimate objectives of violence risk assessment, as opposed to risk prediction (Douglas, & Kropp, 2002).

In recent years, risk assessment has evolved dramatically. First generation measures relied solely on the clinician's judgement (Helmus, & Bourgon, 2011), which increased the likelihood of bias. Biases identified range from confirmation of originally formed hypotheses, to the impact of emotion on the assessment of risk (Lilienfeld, & Lynn, 2014). In fact, Quinsey, Harris, Rice, and Cormier, (1998) noted that clinical opinions alone were little better than chance in predicting future violence.

The development of second generation risk assessments followed in an attempt to address some of these biases. Actuarial tools are designed primarily for risk *prediction* and so seek to quantify risk numerically (Kropp & Hart, 2004). They are therefore criticised for providing little information on measuring *changes* in risk *over time* (Kraemer *et al.*, 2007), as well as neglecting important contextual or case specific variables (Kropp, 2008). The individual's protective factors, current presentation, and attitudes are difficult to ascertain from such measures. This makes allocation to appropriate interventions or identification of treatment needs difficult (Lewis, Olver, & Wong, 2013).

Third generation, or Structured Professional Judgement (SPJ), tools were created to include both clinical opinion and static predictive factors. Commonly, static and dynamic risk factors are determined based on empirical support. Because of this, SPJ tools have been seen as more generalizable (Helmus & Bourgon, 2011) than those designed primarily around a single population, as actuarial tools often are. Indeed, a meta-analysis by Campbell, French, and Gendreau (2009), revealed that third-generation instruments produced a better estimate of the risk of violent recidivism than second-generation measures.

The authors of the Violence Risk Scale (VRS; Wong & Gordon, 1998-2003) argue that this tool fits the criteria of a “fourth generation” risk assessment (Wong & Gordon, 2006). Fourth generation assessments are said to fulfill specialized functions, such as the systematic monitoring and management of offenders, and to provide guidance as to relevant service delivery (Bonta & Andrews, 2007). It is evident that fourth generation risk assessments that are able to accurately predict recidivism, as well as providing useful indications for case management, are increasingly being favoured in forensic spheres (Hanson & Morton-Bourgon, 2009).

Given that the authors suggest that the VRS is progressive in being a fourth generation tool, the tool’s effectiveness and clinical utility is important to examine. The reliability and validity of the VRS is examined in this paper, alongside consideration of its clinical application with forensic populations. The published research on the VRS to date is limited. In addition, the VRS has primarily been evaluated by the instrument developers, an issue which has received criticism due to the potential for author bias in reporting significant results (Singh, Grann, & Fazel, 2013). Further exploration of the efficacy of the tool, from a more objective standpoint, is therefore warranted.

5.1.1. Overview of the Violence Risk Scale

The Violence Risk Scale (VRS; Wong & Gordon, 1998-2003)¹ was developed by Wong and Gordon, in 1998, for use in a forensic psychiatric unit. The VRS is a 26-item risk assessment measure designed to assess the risk of violent recidivism in adults who have committed violent acts. The definition of violence provided by the authors is “any act against a person(s) which resulted in either physical harm or significant psychological harm. The definition is not

¹ Some authors (e.g. Dolan & Fullam, 2007; Dolan, Fullam, Logan & Davies, 2008) refer to a second edition of the VRS (VRS-2). However, the tool authors do not make such a reference and so in the current report the name VRS will refer to the most recent version of the assessment, unless specified otherwise.

restricted to official convictions of violent crimes. All violent behaviours should be taken into account” (p.76, Wong & Gordon, 1998-2003). It could therefore be assumed that this definition includes sexual violence, however a later paper by the authors (Wong & Gordon, 2006) emphasises that the VRS is designed for nonsexual violent offenders. A primary goal of the VRS is to assess the risk of violence for individuals being considered for release or transition to conditions of lower security (Wong & Gordon, 1998-2003).

The factors that comprise the VRS are underpinned by the risk, need, and responsivity (RNR) principles (Andrews & Bonta, 2007), for the effective assessment and treatment of offenders (Wong & Gordon, 1998-2003). According to the RNR principles, successful assessments should target offenders who are considered high-risk of recidivism (risk principle), address their criminogenic needs (need principle), and adapt provision to the individual characteristics and learning styles of the offender (responsivity principle). There is evidence to suggest that when these principles are adhered to, associated reductions in violent recidivism are significant (Dowden & Andrews, 2000). The VRS therefore seeks to meet these principles by indicating that individuals with high scores are more likely to violently reoffend, and therefore require higher intensity intervention - the Risk principle. Dynamic variables that are given a higher score reflect the specific treatment targets for the individual - the Need principle. Finally, treatment should be matched to the individual's stage of change in order to increase efficacy - the Responsivity principle. Wong and Gordon (2006) emphasise the uniqueness of the VRS in its ability to link assessment of future risk with the current treatment needs of the offender, hence why they argue that it is a fourth generation tool.

The VRS consists of 6 static (or historical) risk factors and 20 dynamic risk factors, identified by the literature as being strongly linked to violence (Wong & Gordon, 1998-2003). See Table 10.

Table 10. List of VRS Static and Dynamic Factors outlined in the Manual (Wong & Gordon, 1998-2003)

Static Factors (6)	Dynamic Factors (20)
Current Age (S1)	Violent Lifestyle (D1)
Age at First Violent Conviction (S2)	Criminal Personality (D2)
Number of Young Offender	Criminal Attitudes (D3)
Convictions (S3)	Work Ethic (D4)
Violence Throughout Lifespan (S4)	Criminal Peers (D5)
Prior Release Failures or Escapes (S5)	Interpersonal Aggression (D6)
and Stability of Family Upbringing (S6)	Emotional Control (D7)
	Violence during Institutionalisation (D8)
	Weapon Use (D9);
	Insight into Violence (D10)
	Mental Disorder (D11)
	Substance Abuse (D12)
	Stability of Relationships with Significant Others (D13)
	Community Support (D14)
	Released to High Risk Situations (D15)
	Violence Cycle (D16)
	Impulsivity (D17)
	Cognitive Distortion (D18)
	Compliance with Community Supervision (D19)
	Security Level of Anticipated Release Institution (D20)

All factors are rated on a 4-point scale (0, 1, 2, or 3) with scores that reflect the extent to which that factor applies to the individual. The higher the score, the greater the risk identified. If a factor is given a score of 2 or 3 it is deemed a *treatment target* for that individual. Factors assessed as treatment targets will then also be rated according to an individual's stage of change. The VRS uses an adapted version of the Transtheoretical Model (TTM; Prochaska & DiClemente, 1982) to allow measurement of the individual's readiness to change specific risks relating to violence. The TTM posits that individuals progress through a series of stages (pre-contemplation, contemplation, preparation, action, and maintenance), in the process of modifying their attitudes and behaviours. Progression through the stages is argued to reflect an improvement in the individual's motivation to change on each factor, and thus a reduction in risk (Wong & Gordon, 1998-2003).

4.2. PSYCHOMETRIC PROPERTIES OF THE VRS

2.1. Predictive Validity

The accurate prediction of recidivism is often considered one of the key attributes of risk assessment (Singh, Desmarais & Van Dorn, 2013). The predictive accuracy of a tool can also be a deciding factor for professionals when selecting risk assessments for offenders (Bonta, 2002). The evidence for the validity of the VRS in predicting violent reconviction and institutional violence is currently limited, yet a number of studies have found promising results (see Table 11 for a summary). Wong and Gordon (2006) provided initial evidence in support of the predictive accuracy of the tool in a large scale study of 918 offenders. At a 4.4 year follow up, they reported that all areas under the curve (AUCs), for violent (.75), nonviolent (.72), and all other convictions (.74), were statistically significant ($p < .001$). VRS total scores were also significantly correlated with violent reconvictions (range: .28-.40, $M = .35$), nonviolent convictions (range: .33-.39, $M = .36$) and all reconvictions (range: .37-.43, $M = .41$).

Table 11. Summary of the Psychometric Properties of the VRS

Authors	Predictive Validity	Internal Consistency (VRS Total)	Inter-rater Reliability
Doyle, Carter, Shaw, & Dolan, (2012)	AUC = 0.66, $p < .05$	-	ICC = 0.96
Wong & Gordon (2006).	Violent reconviction: 1yr (AUC = .73, $p < .001$) 2yrs (AUC = .74, $p < .001$) 3yrs (AUC = .72, $p < .001$) 4.4yrs (AUC = .75, $p < .001$)	$\alpha = .93$	ICC = .92
Dolan & Fullam (2007)	12 mth follow up AUC = .71, $p < .001$	-	ICC = 0.89
Dolan, Fullam, Logan & Davies (2008)	All aggression AUC = .69, $p < .001$. Physical violence AUC = .63, $p < .01$.	$\alpha = .89$	ICC = 0.89
Wong and Parhar (2011)	AUC = .83, $p < .001$	-	ICC = 0.93
Lewis, Olver, & Wong (2013)	Pre-treatment total AUC = .60, $p < .05$ Post treatment total AUC = .64, $p < .01$	$\alpha = .84$	Pre-treatment, ICC = .82. Post treatment ICC = .84.
Grevatt, Thomas, & Hughes (2004)	AUC = 0.39, SE = 0.09	-	Kendall's Tau, $\tau_b = 0.72$, $p < .001$
Yesberg & Polaschek (2014)	-	-	Kappa = 0.99, $p < .001$

When applied to a British inpatient forensic sample, the VRS also performed moderately well as a predictor of institutional violence (Dolan, Fullam, Logan & Davies, 2008). The study involved 147 adult mentally disordered offenders from a Medium Secure Unit (MSU), the majority of whom were male (92.5%). Institutional aggression was measured using incident reports of both verbal and physical violence during a six-month admission period. The use of incident reports as a

sole method of violence outcome, however, has been criticised (Spencer & Munch, 2003) due to the potential for contextual and judgement bias by the reporting staff member. Receiver Operating Characteristics (ROC) analyses for VRS total scores showed the significant prediction of aggressive incidents ($AUC = .69, p < .001$). In a logistic regression, the VRS dynamic subscale was also found to be the only significant contributor to the prediction of aggression ($\chi^2 = 20.05, p < .001$), in comparison to Factors 1 and 2 of the Psychopathy Checklist–Screening Version (PCL-SV; Hart, Cox, & Hare, 1995). The VRS could not predict length of time to first violent incident within this study, which may have been due to the very short follow-up period of only 8 weeks.

In a previous study by Dolan and Fullam (2007), with the same sample (138 mentally disorder offenders from the same MSU), the VRS was employed alongside the Historical, Clinical, and Risk Management Violence Risk Assessment Scheme (HCR-20; Webster, Douglas, Eaves, & Hart, 1997). Both measures demonstrated moderate predictive validity for subsequent violence at 12-month follow-up (VRS: $AUC = .71, p < .001$; HCR-20: $AUC = .72, p < .001$). In both of the above studies it is possible that the modest results for both measures could be attributed to a sole reliance on file review data only to score the assessments, a possibility that the authors acknowledge. File reviews were the only source of information for scoring the VRS, which may also have reduced the predictive capabilities of the tool. Farrington, Jolliffe, and Johnstone (2008) have recommended that information is gathered from a range of information sources in order to produce a comprehensive risk assessment.

The VRS has also demonstrated predictive validity when applied to a randomly selected sample of 150 high-risk federal offenders with psychopathic traits (Lewis, Olver, & Wong, 2013). After a 3-year follow up period, the VRS total post treatment scores ($r = .27, d = .59, AUC = .65$) significantly predicted whether offenders would

receive a violent reconviction in the community. VRS dynamic risk factors also demonstrated incremental validity beyond the static factors in predicting violent reoffending (Cox regression survival analysis; dynamic Wald(1) = 5.97, static Wald(1) = 0.52). Lewis, Olver, and Wong (2013) state that the results provide support for the theory that reductions in VRS dynamic variables are causally linked to reductions in future violent reoffending. However, this claim is made in the absence of a no-treatment control group and should therefore be viewed with caution.

Wong and Parhar (2011) also conducted a prospective study, with a sample of federally paroled offenders, employing a 7 year follow up. Their results showed that the VRS significantly predicted violent reconviction in a variety of domains (e.g. $r = .54$, $p < .001$), even when other factors, such as follow-up time, were controlled for. This study did have a smaller sample size (59 participants) than other similar studies.

In a non-author led study, involving a community forensic sample, the VRS significantly predicted post-discharge violence (Doyle, Carter, Shaw & Dolan, 2012). Results also suggested that the VRS provided the clearest differentiation between violent and non-violent offenders when compared with a range of other instruments, including the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993) and the Historical, Clinical, and Risk Management Violence Risk Assessment Scheme (HCR-20; Webster et al., 1997).

Opposing evidence is presented in another small-scale study by Grevatt, Thomas, and Hughes (2004). With a sample of 44 male offenders in a psychiatric unit, these authors found that the VRS was a poor predictor of inpatient violence within the first 6 months of admission (AUC = 0.39, $SE = 0.09$). Only the static factors demonstrated low predictive validity for individuals who had 1-2 incidents of physical assault (AUC = 0.64, $SE = 0.12$). Again, only participant case files were reviewed to score the risk assessments,

however considerable efforts were made to blind assessors to outcome.

In summary, the predictive validity of the VRS ranged from poor to high, with the majority of studies indicating moderate effects. Only four studies were found that did not have author affiliation, yet not all revealed good predictive accuracy (e.g. Grevatt Thomas, & Hughes, 2004). In addition, methodological issues were reported in each case and sample sizes varied considerably.

4.2.2. Inter-rater Reliability and Internal Consistency

It is widely argued that risk assessments of this degree of importance (i.e. for informing decisions about current and future risk) should be as reliable and robust as practically possible (e.g. Van der Knaap, Leenarts, Born, & Oosterveld, 2010). Bonta (2007) even suggests that unreliable risk assessments could potentially result in a miscarriage of justice, by either over or underestimating offender risk. Thus far, reliability results for the VRS have been promising. Several studies have found moderate to high inter-rater reliability for the tool (Dolan, Fullam, Logan & Davies, 2008; Doyle, Carter, Shaw & Dolan, 2012; Grevatt, Thomas, & Hughes, 2004; Singh, Serper, Reinharth & Fazel, 2011; Wong & Gordon, 2006; Wong & Parhar, 2011). Reported scores range from Kendall's Tau, $\tau_b = 0.72$ (Grevatt, Thomas, & Hughes, 2004) to kappa = .99 (Yesberg & Polaschek; 2014).

In addition, there is also recurrent reporting of high overall internal consistency for the measure. However, there is some variation in findings when static and dynamic factors are divided. For example, Wong and Gordon (2006) reported Cronbach's alpha coefficients of .93, .94, and .69, for the VRS total, dynamic item total, and static item totals respectively. Whereas, Dolan and Fullam (2007) found the static items to have better internal consistency (alphas of .89, .85, and .96, respectively).

4.2.3. Concurrent Validity

Little evidence is currently available for the concurrent validity of the VRS. The authors of the tool (Wong & Gordon, 2006) report that it correlated well with the total scores of the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) $r = .83$, the General Statistical Information for Recidivism (GSIR; Bonta, Harman, Han, & Cormier, 1996) $r = -.63$, and the Level of Service Inventory (LSI-R, Andrews & Bonta, 1995) $r = .83$. Langton et al., (2009) also reported small but significant relationships between the VRS and HCR-20 ($r = .50, p < .01$), and the PCL-R ($r = .42, p < .05$). Similarly, Dolan and Fullam (2007) reported very strong correlations between the VRS and HCR-20 total scores ($r = .92$). However, no other studies were found which detail similar results, therefore further research is needed to establish concurrent validity.

4.2.4. Face Validity

A review of the factors that constitute the VRS, and their empirical basis, indicates that the tool does measure the risk of violence re-occurring, and therefore that it is face valid. However, this claim remains unsupported, as no studies were discovered that actively investigate this aspect of validity. Furthermore, as Yang, Wong, and Coid (2010) highlight, varying definitions of violence make it difficult to determine whether violence itself is truly being measured in any assessment.

4.3. COMPARISON WITH ALTERNATIVE VIOLENCE RISK ASSESSMENT TOOLS

The most commonly applied, and widely researched, risk assessment tool for violence is currently the HCR-20 (Logan & Johnstone, 2012). In a meta-analysis of studies investigating the predictive accuracy of the HCR-20, it was demonstrated that the tool had large effect sizes (weighted mean effects up to .98) across all 20 studies reviewed (O'Shea, Mitchell, Picchioni, & Dickens, 2013). Empirical support for the high predictive accuracy of the tool, for violent reconviction and

institutional violence, is wide ranging (e.g. Nicholls, Ogloff, & Douglas, 2004). With such an extensive evidence base for the HCR-20, there is little challenge from the VRS in regards to reliability and validity. However, some studies have drawn comparisons between the two. For example, in comparison to the VRS and VRAG, the HCR-20 was found to be the only measure that showed a significant correlation ($r = 0.44$) between its total score and the frequency of violence at a 20-week follow up (Doyle, Carter, Shaw & Dolan, 2012). Farrington, Jolliffe, and Johnstone (2008) also assessed the predictive validity and practical utility (from a survey of forensic professionals) of eleven key risk assessment tools, including the VRS. They concluded that the HCR-20 appeared to be the most satisfactory tool, both in terms of quantitative evidence and from a practitioner perspective. There are some practice issues that may require further consideration when comparing the VRS and HCR-20, however. For instance, the HCR-20 provides useful information on the individual's risks and needs by inclusion of the clinical items, but unlike the VRS, it lacks inclusion of specific responsivity issues, such as treatment readiness.

Another tool, comparable with the VRS, is the Level of Service Inventory (LSI-R, Andrews & Bonta, 1995). The LSI-R is designed to assess the risks related to general criminal behaviour and is widely used in the United States, especially in community correctional services (Lowenkamp, Lovins, & Latessa, 2009). The LSI-R has also been employed with various offender samples in predicting violent and nonviolent recidivism (Hollin, & Palmer, 2003). The LSI-R has, nonetheless, received criticisms regarding its internal validity with suggestions that only some of its items predict recidivism (Austin, Coleman, Peyton, & Johnson, 2003). In contrast, no such criticisms currently exist about the items comprising the VRS. This may, in part, be due to the sparsity of current research on the tool.

Comparisons have also been drawn with tools such as the Psychopathy Checklist-Revised (PCL-R; Hare, 2003). Although the PCL-R is not a direct measure of violence, there is considerable

empirical support for the association between psychopathy, assessed by the PCL-R, and violent behaviour (Edens, Campbell, & Weir, 2007). The predictive validity of the PCL-R has been well established in a large number of studies with both violent and nonviolent offenders (Hare, 2003). Although, much of the evidence appears to be authored. In addition, when compared to the VRS, Yang, Wong, and Coid (2010) reported that the PCL-R and the VRS are similar in their predictive efficacies (effect sizes of .53 and .55, respectively). A meta-analysis by Singh, Grann, and Fazel (2011) also found that the PCL-R had the second lowest degree of predictive accuracy for violence (Median AUC = 0.66 from 20 studies, Inter-quartile range = 0.54–0.68) compared with eight other risk assessments.

The evidence available for the key violence risk assessments is very diverse. With the exception of the HCR-20, there appears to be little consensus regarding the best tool to apply within forensic settings. It could thus be said that the VRS is broadly comparable to other assessment tools, designed for similar purposes. Further empirical support is required however, if this hypothesis is to be robustly supported.

4.4. CLINICAL UTILITY

One of the greatest advantages of the VRS appears to be the application of the tool as a measure of treatment change. For instance, in their study of life-sentenced prisoners, Yesberg and Polaschek (2014) measured violence risk with the VRS at pre-treatment, post-treatment, and 6 to 12 months following an intervention. The VRS proved to be a highly useful tool, not only in indicating reductions in risk across the program but also for assessing individual patterns of change after treatment. This may be because incorporation of the TTM enables clinicians to allocate treatment responsively, and to reformulate on an individual basis (Wong & Gordon, 2006).

There are however, some areas in which the VRS could be improved if it is to be brought in line with other more comprehensive risk assessments, such as the HCR-20. One suggestion for future adaptations is the inclusion of more recently acknowledged risk factors, such as early experiences of trauma. For instance, there is expanding evidence for the links between early traumatic experiences and later perpetration of violence (e.g. Ttofi, Farrington, & Lösel, 2012), particularly if the victim has experienced sexual abuse during childhood (Krug, Mercy, Dahlberg, & Zwi, 2002). Yet, no reference is made to these factors within the VRS. Additionally, current violence risk assessments have also been criticised for neglecting to include appropriate protective factors (Farrington, Jolliffe & Johnstone, 2008). Again, such additions may enhance the clinical utility of the VRS.

Other versions of the VRS have been developed which have demonstrated promising results with their intended populations. The Sex Offender Version (VRS-SO; Olver, Wong, Nicholaichuk, & Gordon, 2004–2006) applies the same format as the VRS but with criminogenic risk factors specific to the needs of sexual offenders. For example, the inclusion of the “Deviant Sexual Preference” item is founded in a wealth of literature regarding the links between deviancy and sexual recidivism (Hanson & Morton-Bourgon, 2005b). The authors report that the VRS-SO scores demonstrated acceptable inter-rater reliability (ICCs from .66 to .80), and concurrent validity with the Static 99 (Hanson & Thornton, 1999) $r = .55$, in addition to predicting sexual recidivism (AUC = .71, $p < .001$) following release. The Youth Version (VRS-YV; Stockdale, Olver, & Wong, 2014) has also demonstrated high internal consistency ($\alpha = .90$) and interrater reliability (ICC = .90), in a sample of 147 young offenders. However, very little research currently exists on how this scale compares to other established youth measures.

Finally, a Chinese version of the Violence Risk Scale (VRS-C; Zhang, *et al.*, 2012) has also been developed. From a sample of 125 mentally disordered offenders, the VRS-C also showed acceptable inter-rater

reliability (ICC = 0.80) and high internal consistency (α = 0.92), which indicates that the tool may be effectively adapted for use with different cultures.

4.5. CONCLUSIONS

In conclusion, when compared to other risk assessments, such as the HCR-20, the VRS does not yield the same large effect sizes. A relatively large body of the research into the VRS has also been completed by the tool's authors, which introduces the possibility of author bias. However, there is some impartial evidence that the VRS does demonstrate good predictive accuracy for the reoccurrence of violence (e.g. Dolan & Fulam, 2007; Dolan, Fullam, Logan & Davies, 2008), and it has also shown moderate reliability and validity across a range of forensic populations. The scale also gained credibility when it was used as part of the battery of assessments for the Dangerous and Severe Personality Disorder (DSPD) initiative in the UK (Langton et al., 2009). The VRS also incorporates a measure of readiness to change, thereby encouraging practitioners to consider responsivity issues during the assessment and treatment process. Nonetheless, significantly more research is required if the VRS is to gain greater credibility and be considered comparable to more commonly used measures.

4.5.1. Future research

From a review of the available literature, recommendations for future research with the VRS include further use of the tool with community samples, especially offenders on probation or conditional release. There also appears to be a lack of research involving longitudinal prospective studies. The study by Wong and Parhar (2011) appears to be the only one, and this is author led. Such designs would increase evidence for the predictive validity of the measure over time.

Further research is also necessary with a wider variety of offender populations. For example, at the time of review, only two studies (Dolan, Fullam, Logan, & Davies, 2008; Doyle et al., 2011)

demonstrated application of the VRS to a female cohort. However, on both occasions their results were combined with male offenders. Adapting the scale for use with female populations may help to expand its application within forensic settings.

CHAPTER 6

CONCLUSION

The social, psychological and economic costs of violence are extensive, and are faced by those in institutions as well as in the community (e.g. Papadopoulos, et al. 2012). This thesis has made some progress in further understanding the complexities involved with assessing and treating individuals who perpetrate violent acts. Beginning with a systematic review of the literature, this thesis was able to provide an overview of the current research available in the field of violence reduction and offender motivation. One important finding from the review was that little quality research was available in the UK, especially with offenders who suffer from a mental illness. The empirical study then focussed on a programme which sought to be responsive to this population and thus provided , initial support for the efficacy of the Violent Offender Treatment Programme (VOTP) in reducing anger, violent behaviour, and risk of violent recidivism. Although motivation to change did not have a significant impact on treatment outcome within this study, there was an attempt to explore motivation, and the VOTP, in more detail within the case study in Chapter 4. The adaptation of the VOTP to an individual format did not reveal clinically significant reductions in the desired areas, however the practical implications of the research were useful for those delivering the VOTP. In addition, a critical appraisal of the psychometric properties of a key violence risk assessment measure (the Violence Risk Scale) is likely to assist practitioners working with violent individuals by allowing them to take an informed approach to the use of the VRS. Comparisons between this tool and other violence risk assessment measures are extremely important when it is so widely used and when decisions about future risk can have such significant consequences.

A major theme within this thesis has also been the exploration of offender motivation and the concept of readiness in regards to changing violent behaviour. Prior to writing this thesis the importance

of motivation and readiness to change appeared to be indisputable in the field of offender rehabilitation. For example, not only has motivation has been found to be a significant predictor of treatment attrition in offender populations (Olver, Stockdale, & Wormith, 2011) but, those who do not complete treatment are also likely to have significantly higher rates of recidivism than completers (Jewell & Wormith, 2010). However, as a result of conducting these empirical studies, reviews, and critiques it has become evident that the impact of motivation is far more complex than simply whether an individual chooses to change or not to change. As an example, Chambers, Eccleston, Day, Ward, and Howells (2008) indicate that self-efficacy can play an important role in engagement. They argue that if an offender does not perceive that they have the ability to achieve a certain task (e.g. successfully complete treatment) then they are less likely to attempt change. Furthermore, in forensic settings there is an additional element of coercion which begins to complicate the assessment of internal versus external motivation. For instance, Mason and Adler (2012) argue that terminology such as “compliant” has been used interchangeably with more active concepts, such as engagement, which is often misleading and has very different implications for the individual. These are just a small sample of the intricacies of motivating offenders which have become apparent through the process of creating this Doctoral thesis.

The clinical implications of these findings are, nonetheless, highly important within forensic settings where critical decisions are regularly made regarding risk and treatability. The inconsistencies in measurement highlighted here, and the mixed results regarding the impact of motivation on outcome, suggest that clinicians should be cautious when choosing assessments of motivation, allocating unmotivated individuals for treatment, and predicting engagement based on readiness.

The ability to critically appraise and analyse the evidence for and against a certain tool, model, or theoretical perspective is also a key area in which the primary author has developed. There seem to be

certain traps that a practitioner can fall into when practising within a limited field, for an extended period. One of these appears to be a reluctance to see beyond the approaches that the group, organisation, or institution employs. A good example of this is in the persistent use of the Transtheoretical Model (TTM; Prochaska and DiClemente, 1982). The author always perceived the TTM to be an essential tool in helping professionals understand their client's conceptualisation of the problem behaviour and enhancing their motivation to change, which of course it can be. Yet, this reduced the ability to see some of the major criticisms of the model and identify the flaws in its application. Some recent criticisms of the model have emerged, for example, in relation to the TTM's construct validity. As Casey, Day, and Howells (2005) highlight, consistent measurement of the model has yet to be widely agreed. Consequently, the use of different assessment measures can result in the allocation of individuals to different stages. These findings are important in light of theoretical implications for models such as the TTM that may appear very useful in practice but appear to have unstable predictive accuracy or integrity when tested empirically. Awareness of these issues can allow researchers to focus on other approaches, such as the MORM (Ward, Day, Howells, & Birgden, 2004), which take into account external factors, such as the environment. This was an important learning point during the main empirical study where the influence of security level was hinted at but could not be explored in more depth.

A wealth of other developments in the academic and research skills of the primary author occurred as a consequence of completing this thesis. To list just a few, the author grew a rapid awareness of the political and ethical hurdles that require navigation when attempting to conduct research. A sharp learning curve was also necessary in regards to the length of time that research tasks take, and the need to constantly revise targets in the initial stages of the course. Developing a professional academic writing style, and ensuring that theory-practice links were evident throughout all of the Doctoral projects, was a further gradual achievement. Many other examples

could be given, along with the mistakes or errors in judgement along the path to completing this document. There remains a considerable amount to learn about the areas of motivation, violent offender treatment, and more broadly quality forensic research. However, it is with great enthusiasm that the author embarks on the next stage of career development; now feeling far better equipped to face the intellectual challenges ahead.

REFERENCES

- Alemohammad, M., Wood, J. L., Tapp, J., Moore, E., & Skelly, A. (2016). Support for the predictive validity of the multifactor offender readiness model (MORM): forensic patients' readiness and engagement with therapeutic groups. *Criminal Behavior & Mental Health, 20*. doi: 10.1002/cbm.
- Alexander P. C, Morris, E., Tracy, A., & Frye, A. (2010). Stages of change and the group treatment of batterers: a randomized clinical trial. *Violence Victims, 25*(5), 571-87. doi: 10.1891/0886-6708.25.5.571.
- Allen, T. J., Moeller, F. G., Rhoades, H. M. & Cherek, D. R (1998). Impulsivity and history of drug dependence. *Drug and Alcohol Dependence, 50*(2), 137-145. doi.org/10.1016/S0376-8716(98)00023-4
- Andrews, D. A., & Bonta, J. (1995). *LSI-R: The Level of Service Inventory Revised*. Toronto, Ontario, Canada: Multi-Health Systems, Inc.
- Andrews, D. A., & Bonta, J. (2003). *The psychology of criminal conduct*. Third edition. Cincinnati, OH: Anderson.
- Andrews, D. A., & Bonta, J. (2006). *The psychology of criminal conduct* (4th ed.). Newark, NJ: LexisNexis.
- Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law, 16*(1), 39-55. doi: 10.1037/a0018362
- Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17*(1), 19-52. doi: 10.1177/0093854890017001004
- Arseneault, L., Moffitt, T. E., Caspi, A., Taylor, P. J, & Silva, P. A. (2000). Mental disorders and violence in a total birth cohort: results from the Dunedin study. *Archives of General Psychiatry, 57*(11), 979-968. doi:10.1001/archpsyc.57.10.979
- Austin, J., Coleman, D., Peyton, J., & Johnson, K. (2003). *Reliability and validity study of the LSI-R risk assessment instrument*.

Washington, DC: The Institute on Crime, Justice, and Corrections.

- Babcock, J. C., Green, C. E., & Robie, C. (2004). Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clinical Psychology Review, 23*(8), 1023–1053. doi:10.1016/j.cpr.2002.07.001.
- Baker, N. L., Buick, J. D., Kim, S. R. Moniz, S. & Nava, K. L. (2013). Lessons from Examining Same-Sex Intimate Partner Violence. *Sex Roles, 69*(3), 182-192. doi:10.1007/s11199-012-0218-3
- Bandura, A. (1973). *Aggression: A Social Learning Analysis*. Englewood Cliffs, NJ: Prentice Hall.
- Barratt, E. S. & Felthous, A. R. (2003). Impulsive versus premeditated aggression: Implications for Mens Rea decisions. *Behavioral Sciences and the Law, 21*(5), 619–630. doi:10.1002/bsl.555.
- Barriga, A.Q., Gibbs, J. C., Potter, G. B., & Liau, A. K. (2001). *How I Think (HIT) Questionnaire manual*. Champaign, IL: Research Press.
- Bartlett, A., Jhanji, E., White, S., Harty, M. A., Scammell, J. & Allen, S. (2015). Interventions with women offenders: a systematic review and meta-analysis of mental health gain. *The Journal of Forensic Psychiatry & Psychology, 26*(2), 133-165. doi:10.1080/14789949.2014.981563
- Begun, A., Murphy, C., Bolt, D., Weinstein, B., Strodthoff, T., Short, L., & Shelly, G. (2003). Characteristics of the Safe at Home instrument for assessing readiness to change intimate partner violence. *Research on Social Work Practice, 13*(1), 80–107. doi:10.1177/1049731502238758.
- Bénabou, R & Tirole, J. (2003). Intrinsic and Extrinsic Motivation. *Review of Economic Studies, 70*, 489-520.
- Bennett, L. W., Stoops, C., Call, C., & Flett, H. (2007). Program Completion and Re-Arrest in a Batterer Intervention System. *Research on Social Work Practice, 17*(3), 42-54. doi:10.1177/1049731506293729.
- Boer, D. P., Kroner, D. G., Wong, S., & Cadsky, O. (1993). *Assessing the dysfunctional beliefs of spouse assaulters: Development*

and validation of the Abusive Relationships Inventory.
(Unpublished manuscript).

- Bonta, J. (2002). Offender risk assessment: Guidelines for selection and use. *Criminal Justice & Behavior*, 29(4), 355–379. doi:10.1177/0093854802029004002
- Bonta, J. (2007). Offender risk assessment and sentencing. *Canadian Journal of Criminology*, 49(4), 519– 529.
- Bonta, J. & Andrews, D.A. (2007). *Risk-need-responsivity model for offender assessment and rehabilitation 2007-06*. Public Safety Canada. Retrieved from: <http://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/rskndrspnsvty/index-eng.aspx#a6>.
- Bonta, J., Harman, W. G., Han, R. G., & Cormier, R. B. (1996). The prediction of recidivism among federally sentenced offenders: A re-validation of the SIR scale. *Canadian Journal of Criminology*, 38(1), 61–79.
- Bowers, L., Stewart, D., Papadopoulos, C., Dack, C., Ross, J., Khanom, H. & Jeffery, D. (2011). *Inpatient violence and aggression: a literature review: Report from the Conflict and Containment Reduction Research Programme*. Retrieved from: <http://www.kcl.ac.uk/ioppn/depts/hspr/research/ciemh/mhn/projects/litreview/LitRevAgg.pdf>
- Bradley Report (2009). Lord Bradley's review of people with mental health problems and learning disabilities in the criminal justice system. London: Department of Health.
- Braham, L., Jones, D. & Hollin, C. R. (2008). The Violent Offender Treatment Program (VOTP): Development of a Treatment Program for Violent Patients in a High Security Psychiatric Hospital. *International Journal of Forensic Mental Health*, 7(2), 157–172. doi:10.1080/14999013.2008.9914412
- Bridle, C., Riemsma, R. P., Pattenden, J., Sowden, A. J., Mather, L., Watt, I. S., & Walker, A. (2005). Systematic review of the effectiveness of health behavior interventions based on the transtheoretical model. *Psychology and Health June*, 20(3), 283– 301. doi:10.1080/08870440512331333997

- Brown, S. J. & Tully, R. (2014). Components underlying sex offender treatment refusal: An exploratory analysis of the Treatment Refusal Scale - Sex Offender Version. *Journal of Sexual Aggression*, 20(1), 69-84. doi:10.1080/13552600.2012.759282
- Campbell, M. A., French, S., & Gendreau, P. (2009). The Prediction of Violence in Adult Offenders: A Meta-Analytic Comparison of Instruments and Methods of Assessment. *Criminal Justice and Behavior*, 36(6), 567. doi: 10.1177/0093854809333610.
- Chambers, J. C, Eccleston, L., Day, A., Ward, T., & Howells, K., (2008). Treatment readiness in violent offenders: The influence of cognitive factors on engagement in violence programs. *Aggression and Violent Behavior*, 13(4), 276-284. doi:10.1016/j.avb.2008.04.003.
- Connors, A. D., Mills, J. F., & Gray, A. L. (2012). An Evaluation of Intimate Partner Violence Intervention with Incarcerated Offenders. *Journal of Interpersonal Violence*, 27(6), 1176-1196. doi:10.1177/0886260511424499
- Connors, A. D., Mills, J. F., & Gray, A. L. (2013). Intimate Partner Violence Intervention for High-Risk Offenders. *Psychological Services*, 10(1), 12-23. doi: 10.1037/a0028979
- Connors, C. C, DiClemente, G. J., Velasquez, M. M., & Donovan, D. M. (2013) *Substance Abuse Treatment and the Stages of Change Second Edition. Selecting and Planning Interventions*. New York: Guilford Press.
- Cooper, J. (2008). Essential Research Findings in Counselling and Psychotherapy. The Facts are Friendly. London: Sage Publications.
- Correctional Service Canada. (2001). Assessment manual for the moderate and high intensity family violence prevention programs. Ottawa, ON: Reintegration Programs Division. Revised 2006.
- Coviello, D. M., Zanis, D. A., Wesnoski, S. A., Palman, N., Gur, A., Lynch, K. G., & McKay, J. R. (2013). Does Mandating Offenders to Treatment Improve Completion Rates? *Journal of*

- Substance Abuse Treatment*, 44(4), 417–425. Doi: 10.1016/j.jsat.2012.10.003.
- Curry, S., Wagner, E. H., & Grothaus, L. C. (1990). Intrinsic and extrinsic motivation for smoking cessation. *Journal of Consulting and Clinical Psychology*, 58(3), 310–316.
- Day, A., & Doyle, P. (2010). Violent offender rehabilitation and the therapeutic community model of treatment: Towards integrated service provision? *Aggression and Violent Behavior*, 15(5), 380–386. doi:10.1016/j.avb.2010.06.006.
- Day, A., Howells, K., Casey, S., Chambers, J. C. & Birgden, A. (2009). Assessing Treatment Readiness in Violent Offenders. *Journal Interpersonal Violence*, 24(4), 618–635. doi: 10.1177/0886260508317200
- De Burca, C., Miles, H. L & Vasquez, E. A. (2013). Substance use amongst mentally disordered offenders in medium security: prevalence and relationship to offending behaviour. *Journal of Forensic Practice*, 15(4), 259–268. doi:10.1108/JFP-08-2012-0010
- DiClemente, C. C., Schlundt, D., Gemmell, L. (2004). Readiness and stages of change in addiction treatment. *American Journal of Addiction*, 13, 103–119.
- DiGiuseppe, R. & Tafrate, R. C. (2003). Anger Treatment for Adults: A Meta- Analytic Review. *Clinical Psychology: Science and Practice*, 10(1), 70–84. doi: 10.1093/clipsy.10.1.70.
- Dodge, K. A. & Pettit, G. S. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*, 39(2), 349–371. doi:10.1037/0012-1649.39.2.349 0471157.
- Dolan & Fullam (2007). The Validity of the Violence Risk Scale 2nd Edition (VRS-2) in a British Forensic Inpatient Sample. *Journal of Forensic Psychiatry & Psychology*, 18(3), 381–393. doi:10.1080/14789940701489390
- Dolan, M., Fullam, R., Logan, C. & Davies, G. (2008). The Violence Risk Scale Second Edition (VRS-2) as a predictor of institutional violence in a British forensic inpatient sample.

- Psychiatric Research*, 158(1), 55-65.
doi:10.1016/j.psychres.2006.08.014
- Donovan, C., Hester, M., Holmes, J., & McCarry, M. (2006). *Comparing domestic abuse in same sex and heterosexual relationships*. Bristol: University of Bristol.
- Douglas, K. S. & Skeem, J. L. (2005). Violence Risk Assessment: Getting Specific About Being Dynamic. *Psychology, Public Policy, and Law*, 11(3), 347-383. doi: 10.1037/1076-8971.11.3.347
- Douglas, K. S., & Kropp, P. R. (2002). A prevention-based paradigm for violence risk assessment: Clinical and research applications. *Criminal Justice and Behavior*, 29(5), 617-658. doi: 10.1177/009385402236735
- Douglas, K. S., Ogloff, J. R. P., & Hart, S. D. (2003). Evaluation of a model of violence risk assessment among forensic psychiatric patients. *Psychiatric Services*, 54(10), 1372-1379. doi:10.1176/appi.ps.54.10.1372
- Douglas, K. S. & Webster, C.D. (1999). The HCR-20 violence risk assessment scheme: concurrent validity in a sample of incarcerated offenders. *Criminal Justice and Behavior*, 26(1), 3-19. doi: 10.1177/0093854899026001001
- Dowden, C., & Andrews, D. A. (2000). Effective correctional treatment and violent reoffending: A meta-analysis. *Canadian Journal of Criminology*, 42(4), 449-467.
- Doyle, M., Carter, S., Shaw, J., & Dolan, M. (2012). Predicting community violence from patients discharged from acute mental health units in England. *Social Psychiatry and Psychiatric Epidemiology*, 47(4), 627-637. doi:10.1007/s00127-011-0366
- Dreer, L. E., Berry, J., Rivera, P., Snow, M., Elliott, T. R. Miller, D. Little, T. D. (2009). Efficient Assessment of Social Problem-Solving Abilities in Medical and Rehabilitation Settings: A Rasch Analysis of the Social Problem-Solving Inventory-Revised. *Journal of Clinical Psychology*, 65(7), 653-669. doi: 10.1002/jclp.20573

- Drieschner, K. H., Lammers, S. M. M. & van der Staak, C. P. F. (2004). Treatment motivation: An attempt for clarification of an ambiguous concept. *Clinical Psychology Review*, 23(8), 1115–1137. doi:10.1016/j.cpr.2003.09.003
- D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (2002). *Social Problem-Solving Inventory-Revised (SPSI-R)*. North Tonawanda, NY: Multi-Health Systems, Inc.
- Echeburúa, E., Fernández-Montalvo, J. & Amor, P. J. (2006). Psychological treatment of men convicted of gender violence: A pilot-study in the Spanish prisons. *International Journal of Offender Therapy and Comparative Criminology*, 50(1), 57-70. doi:10.1177/0306624X05277662
- Eckhardt, C. I., Murphy, C., Black, D., & Suhr, L. (2006). Intervention Programs for Perpetrators of Intimate Partner Violence: Conclusions from a Clinical Research Perspective. *Public Health Reports*, 121(4), 369–381.
- Edens, J. F., Campbell, J. S., & Weir, J. M. (2007). Youth psychopathy and criminal recidivism: A meta-analysis of the Psychopathy Checklist measures. *Law and Human Behavior*, 31(1), 53–75. doi:10.1007/s10979-006-9019-y; PMID:17019617
- Effective Practice and Organisation of Care (EPOC; 2013). *Data collection form. EPOC Resources for review authors*. Oslo: Norwegian Knowledge Centre for the Health Services. Retrieved from: <http://epoc.cochrane.org/epoc-specific-resources-review-authors>.
- Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, 196, 129– 36.
- Engel, G. L. (1978). The biopsychosocial model and the education of health professionals. *Annals of the New York Academy of Sciences*, 310, 169–87. doi: 10.1111/j.1749-6632.1978.tb22070.x
- Etzler, S. L., Rohrmann, S. & Brandt, H. (2014). Validation of the STAXI-2: A study with prison inmates. *Psychological Test and Assessment Modeling*, 56(2), 178-194.

- Farrington, D. P., Jolliffe, D., & Johnstone, L. (2008). *Assessing Violence Risk: A Framework for Practice*. Retrieved from: <http://www.rmascotland.gov.uk/files/2112/7263/5786/Assessing%20Violence%20Risk%20%20A%20Framework%20for%20Practice.pdf>
- Field, C. A., Adinoff, B., Harris, T. R., Ball, S. A., & Carroll, K. M. (2009). Construct, Concurrent and Predictive Validity of the URICA: Data from Two Multi-site Clinical Trials. *Drug and Alcohol Dependence*, 101(1-2), 115–123. doi:10.1016/j.drugalcdep.2008.12.003
- Freud, A. (1936). The ego and the mechanisms of defense. New York: Hogarth Press. Cited in: Baumeister, R. F., Dale, K. & Sommer, K. L. (1998), Freudian Defense Mechanisms and Empirical Findings in Modern Social Psychology: Reaction Formation, Projection, Displacement, Undoing, Isolation, Sublimation, and Denial. *Journal of Personality*, 66(6), 1081–1124. doi:10.1111/1467-6494.00043.
- Genelettia, S., Best, N., Toledano, M. B., Elliott, P. & Richardson, S. (2011). Uncovering selection bias in case-control studies using Bayesian post-stratification. *Statistics in Medicine*, 32(15), 1–16. doi: 10.1002/sim.5722
- Gilchrist, E., Johnson, R., Takriti, R., Weston, S., Beech, A. & Kebbell, M. (2003). *Domestic violence offenders: characteristics and offending related needs*. Home Office; London.
- Glied, S. & Frank, R. G. (2014). Mental Illness and Violence: Lessons from the Evidence. *American Journal of Public Health*, 104(2), 5-6. doi: 10.2105/AJPH.2013.301710.
- Gorman-Smith, D., Henry, D. B., & Tolan, P. H. (2004). Exposure to community violence and violence perpetration: The protective effects of family functioning. *Journal of Clinical Child and Adolescent Psychology*, 33(3), 439–449. doi:10.1207/s15374424jccp3303_2
- Grant, S., Contoreggi, C., & London, E. D (2000). Drug abusers show impaired performance in a laboratory test of decision making.

Neuropsychologia, 38(8), 1180–1187. doi:10.1016/S0028-3932(99)00158-X

Grevatt, M., Thomas, P., B., & Hughes, G. (2004). Violence, mental disorder and risk assessment: can structured clinical assessments predict the short-term risk of inpatient violence. *The Journal of Forensic Psychiatry and Psychology*, 15(2), 278–292. doi:10.1080/1478994032000199095

Gudjonsson, G. H. & Sigurdsson, J. F. (2000). Differences and similarities between violent offenders and sex offenders. *Child Abuse & Neglect*, 24(3), 363–372. doi:10.1016/S0145-2134(99)00150-7

Hanson, R. K. (1993). *The Commitment to Change Scale, Unpublished questionnaire*. Referenced in Rooney, J. & Hanson, K. R. (2001). Predicting Attrition from Treatment Programs for Abusive Men. *Journal of Family Violence*, 16(2), 131–149.

Hanson, R. K. (2005). Twenty years of progress in violence risk assessment. *Journal of Interpersonal Violence*, 20(2), 212–217. doi:10.1177/0886260504267740

Hanson, R. K. & Morton-Bourgon, K. (2005a). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, 66(2), 348–62. doi:10.1037/0022-006X.66.2.348.

Hanson, R. K., & Morton-Bourgon, K. E. (2005b). The Characteristics of Persistent Sexual Offenders: A Meta-Analysis of Recidivism Studies. *Journal of Consulting and Clinical Psychology*, 73(6), 1154–1163. doi: 10.1037/0022-006X.73.6.1154

Hanson, R. K., & Morton-Bourgon, K. E. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment*, 21(1), 1–21. doi:10.1037/a0014421

Hanson, R. K., & Thornton, D. (1999). *Static 99: Improving actuarial risk assessments for sex offenders (User Report 99–02)*. Ottawa, Ontario, Canada: Department of the Solicitor General of Canada.

- Hare, R. D. (2003). *The Hare Psychopathy Checklist—Revised (2nd ed.)*. Toronto, Ontario, Canada: Multi-Health Systems.
- Harris, G. T., Rice, M. E., & Quinsey, V. L. (1993). Violent recidivism of mentally disordered offenders: The development of a statistical prediction instrument. *Criminal Justice and Behavior*, 20, 315-335. doi: 10.1177/0093854893020004001
- Hart, S. D., Cox, D. N., & Hare, R. D. (1995). *Manual for the Hare Psychopathy Checklist: Screening Version (PCL:SV)*. Toronto, ON, Canada: Multi-Health Systems.
- Heather, N. & Rollnick, S. (1993). *Readiness to change questionnaire: user's manual (revised version)*. Technical Report No. 19, National Drug and Alcohol Research Centre.
- Helmus, L., & Bourgon, G. (2011). Taking stock of 15 years of research on the Spousal Assault Risk Assessment Guide (SARA): A critical review. *International Journal of Forensic Mental Health*, 10(1), 64-75. doi:10.1080/14999013.2010.551709
- Higgins, J. P. T., & Green, S (2011). *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0* [updated March 2011]. The Cochrane Collaboration.
- Hodgins, S. (2002). Research Priorities in Forensic Mental Health. *International Journal of Forensic Mental Health*, 1(1), 7-23. doi:10.1080/14999013.2002.1.
- Hogue, T. E. (1994). Goal Attainment Scaling: A measure of clinical impact & risk assessment with sexual offenders. In N. Clark & G. Stephenson (Eds.), *Rights & risks: The application of forensic psychology* (pp. 68-75). Leicester: British Psychological Society.
- Hollin, C. R., & Palmer, E. J. (2003). Level of Service Inventory-Revised Profiles of Violent and Nonviolent Prisoners. *Journal of Interpersonal Violence*, 18(9), 1075-1086. doi:10.1177/0886260503254514
- Howells, K., & Day, A. (2002). Grasping the nettle: Treating and rehabilitating the violent offender. *Australian Psychologist*, 37(3), 222-228. doi: 10.1080/00050060210001706906

- Howells, K. & Day, A. (2003). Readiness for anger management: clinical and theoretical issues. *Clinical Psychology Review*, 23(2), 319-337. doi:10.1016/S0272-7358(02)00228-3.
- Howells, K., Watt, B., Hall, G., & Baldwin, S. (1997). Developing programs for violent offenders. *Legal and Criminological Psychology*, 2(1), 117-128.
- Ingram, B. L. (2006). *Clinical case formulations: Matching the integrative treatment plan to the client*. Hoboken, NJ: John Wiley & Sons.
- Izycky, A. Braham, L., Williams, L. & Hogue, T. (2010). Goal attainment scaling: usefulness of a tool to measure risk in violent mentally disordered offenders. *The British Journal of Forensic Practice*, 12(2), 14-22. doi:10.5042/bjfp.2010.0182
- Jewell, L. M. & Wormith, S. J. (2010). Variables Associated with Attrition from Domestic Violence Treatment Programs Targeting Male Batterers a Meta-Analysis. *Criminal Justice and Behavior*, 37(10), 1086-1113. doi: 10.1177/0093854810376815.
- Jolliffe, D. & Farrington, D. P. (2007). *A Systematic Review of the National and International Evidence on the Effectiveness of Interventions with Violent Offenders*. London: Ministry of Justice (Research Series 16/07).
- Jones, D., & Hollin, C. R. (2004). Managing problematic anger: The development of a treatment program for personality disordered patients in High security. *International Journal of Forensic Mental Health*, 3, 197-210. doi:10.1080/14999013.2004.10471207
- Karanicolas, P. J., Farrokhyar, F., & Bhandari, M. (2010). Blinding: Who, what, when, why, how? *Canadian Journal of Surgery*, 53(5), 345-348.
- Kay, S. R, Wolkenfelf, F. & Murrill, L. M. (1988). Profiles of aggression among psychiatric patients: I. nature and prevalence. *Journal of Nervous and Mental Disease*, 176(9), 539-546. doi: 10.1097/00005053-198809000-00007
- Klepfisz, G., O'Brien, K. & Daffern, M. (2014). Violent Offenders' Within-Treatment Change in Anger, Criminal Attitudes, and

- Violence Risk: Associations with Violent Recidivism. *International Journal of Forensic Mental Health*, 13(4), 348-362. doi: 10.1080/14999013.2014.951107.
- Kraemer, H. C., Kazdin, A. E., Offord, D. R., Kessler, R. C., Jensen, P. S., & Kupfer, D. J. (1997). Coming to terms with the terms of risk. *Archives of General Psychiatry*, 54(4), 337-343. doi:10.1001/archpsyc.1997.01830160065009
- Kroner, D. G., Power, J., Takahashi, M. & Harris, A. J. R. (2014). Predicting Treatment Attrition Among Seriously Violent Offenders. *Journal of Interpersonal Violence*, 29(12), 2239-2256. doi: 10.1177/0886260513517551
- Kropp, P. R., & Hart, S. D. (2004). *The development of the brief spousal assault form for the evaluation of risk (B-SAFER): a tool for criminal justice professionals*. Department of Justice Research and Statistics Division, editor. Ottawa, ON: Government of Canada. Retrieved from: <http://canada.justice.gc.ca/en/ps/rs/rep/2005/rr05fv-1/fv-1/pdf>.
- Kropp, P. R. (2008). Intimate partner violence risk assessment and management. *Violence and Victims*, 23(2), 202-220. doi: 10.1891/0886-6708.23.2.202
- Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. *The Lancet*, 360(9339), 1083-1088.
- Lambert, M. J., Hansen, N. B., Umphress, V., Lunnen, K., Okiishi, J., Burlingame, G. M., & Reisenger, C. W. (1996). *Administration and Scoring Manual for the OQ-45.2 (Outcome Questionnaire)*. Salt Lake City, UT
- Langton, C. M., Hogue, T. E., Daffern, M., Mannion, A. & Howells, K. (2009). Prediction of institutional aggression among personality disordered forensic patients using actuarial and structured clinical risk assessment tools: prospective evaluation of the HCR-20, VRS, Static-99, and Risk Matrix 2000. *Psychology, Crime & Law*, 15(7), 635-659. doi:10.1080/10683160802516224

- Levesque, D. A., Driskell, M. M., Prochaska, J. M., & Prochaska, J. O. (2008). Acceptability of a stage-matched expert system intervention for domestic violence offenders. *Violence and Victims, 23*(4), 432-45. doi:10.1891/0886-6708.23.4.432
- Levesque, D. A., Gelles, R. J., & Velicer, W. F. (2000). Development and Validation of a Stages of Change Measure for Men in Batterer Treatment. *Cognitive Therapy and Research, 24*(2), 175-199. doi:10.1023/A:1005446025201
- Levesque, D. A., Prochaska, J. O., Ciavatta, M. M., Castle, P. H., & Prochaska, J. M. (2012). Evaluation of a Stage-Based, Computer- Tailored Adjunct to Usual Care for Domestic Violence Offenders. *Psychology of Violence, 2*(4), 368–384. doi: 10.1037/a0027501
- Levesque, D. A., Velicer, W. F., Castle, P. H., & Greene, R. N. (2008). Resistance among domestic violence offenders: Measure development and initial validation. *Violence Against Women, 14*(2), 158– 184. doi:10.1177/1077801207312397.
- Lewis, K., Olver, M. E., & Wong, S. C. P. (2013). The Violence Risk Scale: predictive validity and linking changes in risk with violent recidivism in a sample of high-risk offenders with psychopathic traits. *Assessment, 20*(2), 150-64. doi: 10.1177/1073191112441242.
- Lilienfeld, S. O. & Lynn, S. J. (2014). Errors/Biases in Clinical Decision Making. *The Encyclopedia of Clinical Psychology, 1–9*. doi: 10.1002/9781118625392.wbecp567
- Lipsey, M. W., & Cullen, F. T. (2007). The effectiveness of correctional rehabilitation: A review of systematic reviews. *Annual Review of Law and Social Science, 3*(1), 297–320. doi: 10.1146/annurev.lawsocsci.3.081806.112833
- Littell J. H, & Girvin, H. (2002). Stages of change. A critique. *Behavioural Modification, 26*(2), 223-73. doi: 10.1177/0145445502026002006
- Liu, J. & Wuerker, A. (2005). Biosocial bases of aggressive and violent behavior—implications for nursing studies. *International Journal*

- of *Nursing Studies*, 42(2), 229-241. doi: 10.1016/j.ijnurstu.2004.06.007
- Logan, C. & Johnstone, L. (2012). *Managing Clinical Risk: A Guide to Effective Practice*. Routledge: London.
- Lorenz, J. L., (2013). The Duluth Model in practice: Evaluating police and practitioner response to domestic violence. *Electronic Theses and Dissertations. Paper 114*. Retrieved from: <http://scholarworks.uni.edu/etd/114>
- Lowenkamp, C. T., Lovins, B., & Latessa, E. J. (2009). Validating the Level of Service Inventory Revised and the Level of Service Inventory: Screening Version with a sample of probationers. *The Prison Journal*, 89(2), 192. doi: 10.1177/0032885509334755
- Loza, W. & Conley, M. & Warren, B. (2004). Concurrent cross-validation of the self-appraisal questionnaire: A tool for assessing violent and nonviolent recidivism and institutional adjustment on a sample of North Carolina offenders. *International Journal of Offender Therapy and Comparative Criminology*, 48(1), 85-95. doi: 10.1177/0306624X03257714
- Lund, C., Hofvander, B., Forsman, A., Anckarsäter, H. & Nilsson, T. (2013). Violent criminal recidivism in mentally disordered offenders: A follow-up study of 13-20 years through different sanctions, *International Journal of Law and Psychiatry*, 36(3-4), 250-257. doi:10.1016/j.ijlp.2013.04.015.
- Maden, A. Williams, J. Wong, S. C. P. & Leis, T. A. (2004). Treating dangerous and severe personality disorder in high security: lessons from the Regional Psychiatric Centre, Saskatoon, Canada. *The Journal of Forensic Psychiatry & Psychology*, 15(3), 375-390. doi: 10.1080/1478994042000268853.
- Mansfield, M. (2008). The STAXI as a measure of inmate anger and a predictor of institutional offending. *Journal of Forensic Psychiatry and Psychology*, 19(3), 396-406. doi: 10.1080/14789940802164090
- Mason, K. & Adler, J. R. (2012). Group-work therapeutic engagement in a high secure hospital: male service user perspectives.

- British Journal of Forensic Practice*, 14(2), 92-103.
doi.org/10.1108/14636641211223657.
- McConaughy, E. A., DiClemente, C. C., Prochaska, J. O., & Velicer, W. F. (1989). Stages of change in psychotherapy: A follow-up report. *Psychotherapy*, 26(4), 494-503. doi: 10.1037/h0085468
- McGuire, J. (ed). (1995). *What Works: Reducing Re-offending*. Chichester: Wiley and Sons.
- McGuire, J. (2008). A review of effective interventions for reducing aggression and violence. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 363(1503), 2577-2597. doi:10.1098/rstb.2008.0035.
- McMurran, M. (2002). (Ed.) *Motivating offenders to change: A guide to enhancing engagement in therapy*. Chichester: Wiley.
- McMurran, M. (2009). Motivational interviewing with offenders: A systematic review. *The British Psychological Society Legal and Criminological Psychology*, 14(1), 83-100. doi: 10.1348/135532508X278326
- McMurran, M., & McGuire, J. (Eds). (2005). *Social problem solving and offending: Evidence, evaluation, and evolution*. Chichester: Wiley.
- McMurran, M. & Ward, T., (2004). Motivating offenders to change in therapy: An organizing framework. *Legal and Criminological Psychology*, 9(2), 159-311. doi: 10.1348/1355325041719365
- McMurran, M., & Ward, T. (2010). Treatment readiness, treatment engagement and behaviour change. *Criminal Behavior & Mental Health*, 20(2), 75-85. doi: 10.1002/cbm.762.
- Melchert, T. P. (2014). *Biopsychosocial Practice: A Science -Based Framework for Behavioral Health Care*. American Psychological Association.
- Mihalic, S. W & Elliott, D. (1997). Social Learning Theory Model of Marital Violence. *Journal of Family Violence*, 12(1), 21-47. doi:10.1023/A:1021941816102

- Miller, W. R., & Rollnick, S. (1991). *Motivational interviewing: Preparing people to change addictive behavior*. New York: Guilford Press.
- Ministry of Justice (MoJ; 2010). *Statistics of Mentally Disordered Offenders 2008 England and Wales*. Ministry of Justice Statistics bulletin. Retrieved from www.justice.gov.uk/publications/mentally-disordered-offenders.htm
- Ministry of Justice (MoJ; 2013). *Transforming Rehabilitation: a summary of evidence on reducing reoffending*. Available from: <http://www.justice.gov.uk/publications/researchandanalysis/moj>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: *The PRISMA Statement*. *PLoS Med* 6(6), e1000097. doi:10.1371/journal.pmed1000097.
- Morgan, R. D., Flora, D. B., Kroner, D. G., Mills, J. F., Varghese, F., & Steffan, J. S. (2012). Treating Offenders with Mental Illness: A Research Synthesis. *Law and Human Behavior*, 36, 37–50. Doi:10.1037/h0093964.
- Motiuk, L., & Belcourt, R. (1997). Profiling federal offenders with violent offences. *Forum on Corrections Research*, 9(2), 8–13.
- Nevid, J. (2013). *Psychology: Concepts and applications*. Belmont, CA: Wadworth.
- NICE Guidelines (2011a). *Psychosis with coexisting substance misuse: Assessment and management in adults and young people*. Retrieved from: <http://publications.nice.org.uk/psychosis-with-coexisting-substance-misuse-cg120/introduction>.
- NICE Guidelines (2011b). *Common mental health problems: identification and pathways to care*. Retrieved from: <https://www.nice.org.uk/guidance/cg123>.
- Nicholls, T. N., Ogloff, J. R. P., & Douglas, K. S. (2004). Assessing risk for violence among male and female psychiatric patients: the HCR-20, PCL:SV and VSC. *Behavioral Sciences & the Law*, 22(1), 127–158. doi: 0.1002/bsl.579

- Novaco, R. W. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan & H. J. Steadman (Eds.), *Violence and mental disorder* (pp. 21–59). Chicago, IL: The University of Chicago Press.
- Novaco, R. W., & Taylor, J. L. (2004). Assessment of anger and aggression in male offenders with developmental disabilities. *Psychological Assessment, 16*(1), 42–50. doi: 10.1037/1040-3590.16.1.42
- Okiishi, J., Lambert, M. J., Eggett, D., Nielsen, L., Dayton, D. D., & Vermeersch, D. A. (2006). An analysis of therapist treatment effects: Toward providing feedback to individual therapists on their clients' psychotherapy outcome. *Journal of Clinical Psychology, 62*(9), 1157–1172. doi: 10.1002/jclp.20272
- Olver, M. E., Wong, S. C. P., Nicholaichuk, T., & Gordon, A. (2007). The validity and reliability of the Violence Risk Scale – Sexual Offender Version: Assessing sex offender risk and evaluating therapeutic change. *Psychological Assessment, 19*(3), 318–329. doi: 10.1037/1040-3590.19.3.318
- Olver, M. E., Stockdale, K. C. & Wormith, J. S (2011). A Meta-Analysis of Predictors of Offender Treatment Attrition and Its Relationship to Recidivism. *Journal of Consulting and Clinical Psychology, 79*(1), 6–21. doi: 10.1037/a0022200
- O'Shea, L. E., Mitchell, A. E., Picchioni, M. M., & Dickens, G. L. (2013). Moderators of the predictive efficacy of the Historical, Clinical and Risk Management-20 for aggression in psychiatric facilities: Systematic review and meta-analysis. *Aggression and Violent Behavior, 18*(2), 255–270. doi:10.1016/j.avb.2012.11.016
- Palmer, E. J., & Hollin, C. R. (2003). Using the Psychological Inventory of Criminal Thinking Styles with English prisoners. *Legal and Criminological Psychology, 8*(2), 175–181. doi: 10.1348/1355325041719374
- Papadopoulos, C., Ross, J., Stewart, D., Dack, C., James, K. & Bowers, L. (2012). The antecedents of violence and aggression within psychiatric in-patient settings. *Acta*

Psychiatria Scandinavica, 125(6), 425–439.
doi: 10.1111/j.1600-0447.2012.01827.x

- Patton, J. H., Stanford, M. S., & Barratt, E. S. (1995). Factor structure of the Barratt Impulsiveness Scale. *Journal of Clinical Psychology*, 51(6), 768–774. doi: 10.1002/1097-4679
- Paulhus, D. L. (1998). Paulhus deception scales (PDS): *The balanced inventory of desirable responding-7: user's manual*. Toronto: Multi- Health Systems Inc.
- Pietz, C. A. & Mattson, C. A. (2015). *Violent Offenders: Understanding and Assessment*. New York, NY: Oxford University Press.
- Polaschek, D. L. & Ross, E. C. (2010). Do early therapeutic alliance, motivation, and stages of change predict therapy change for high- risk, psychopathic violent prisoners? *Criminal Behaviour and Mental Health*, 20(2), 100–111. doi: 10.1002/cbm.759
- Polaschek, D. L., Collie, R. M. & Reynolds, N. (2000). Assessment and treatment: Violent offenders. In C. R. Hollin (Ed.), *Handbook of offender assessment and treatment* (pp. 415- 432). Chichester, UK: Wiley.
- Prochaska, J. O. & Levesque, D. A. (2002). *Enhancing Motivation of Offenders at Each Stage of Change and Phase of Therapy*, in *Motivating Offenders to Change: A Guide to Enhancing Engagement in Therapy* (ed M. McMurrin), John Wiley & Sons, Ltd, West Sussex, England.
- Prochaska, J. O. (2008). Decision Making in the Transtheoretical Model of Behavior Change. *Medical Decision Making*, 28(6), 845– 849. doi: 10.1177/0272989X08327068.
- Prochaska, J. O. & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research, and Practice*, 19(3), 276-288. doi: 10.1037/h0088437
- Prochaska, J.O., & DiClemente, C.C. (1983). Stages and processes of self- change in smoking: Towards an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51(3), 390-395. doi: 10.1037//0022-006X.51.3.390

- Quinsey, V., Harris, G., Rice, M., & Cormier, C., (1998). *Violent Offenders: Appraising and Managing Risk*. Washington, DC: American Psychological Association.
- Reimsma, R. P., Pattenden, J., Bridle, C., Sowden, A. J., Mather, L., Watt, I. S., & Walker, A. (2002). A systematic review of the effectiveness of interventions based on a stages-of change approach to promote individual behaviour change. *Health Technology Assessment*, 6(24), 1-231
- Risk Management Authority Risk (RMA, 2007). *Assessment Tools Evaluation Directory*. Accessed from: <http://www.rmascotland.gov.uk/files/5512/7306/6150/riskAssessmentToolsEvaluationDirectory.pdf>
- Rivett, M. (2006). Editorial: Treatment for perpetrators of domestic violence: controversy in policy and practice. *Criminal Behaviour & Mental Health*, 16(4), 205–210. doi: 10.1002/cbm.617.
- Rollnick, S., & Miller, W.R. (1995). What is motivational interviewing? *Behavioural and cognitive Psychotherapy*, 23(4), 325-334.
- Rooney, J. & Hanson, K. R. (2001). Predicting Attrition from Treatment Programs for Abusive Men. *Journal of Family Violence*, 16(2), 131– 149. doi:10.1023/A:1011106902465.
- Sainsbury Centre for Mental Health (2008). *A review of the use of offending behaviour programmes for people with mental health problems*. Retrieved from: http://www.centreformentalhealth.org.uk/pdfs/offending_behaviour_programmes.pdf
- Sainsbury Centre for Mental Health (2009). Briefing 39: Mental health care and the criminal justice system. Retrieved from: <http://www.ohrn.nhs.uk/resource/policy/SCMHMandtheCJS.pdf>
- Sainsbury, L., Krishnan, G., & Evans, C. (2004). Motivating factors for male forensic patients with personality disorder. *Criminal Behaviour and Mental Health*, 14, 29–38. doi: 10.1002/cbm.558
- Sanderson, C. (2015). *Counselling Skills for Working with Shame*. Jessica Kingsley Publishers: London.
- Sartin, R. M., Hansen, D. J. & Huss, M. T. (2006) Domestic Violence Treatment Response and Recidivism: A Review and Implications

- for the Study of Family Violence. *Aggression and Violent Behavior*, 11(5), 425–440. doi:10.1016/j.avb.2005.12.002.
- Schamborg, S., Tully, R. J. & Browne, K. D. (2015). The Use of the State-Trait Anger Expression Inventory-II with Forensic Populations: A Psychometric Critique. *International Journal of Offender Therapy and Comparative Criminology*, 1–18. doi: 10.1177/0306624X15577932
- Schuckit, M. A. (2006), Comorbidity between substance use disorders and psychiatric conditions. *Addiction*, 101(1), 76–88. doi: 10.1111/j.1360-0443.2006.01592.x.
- Schumacher, J. A., Coffey, S. F., Stasiewicz, P. R., Murphy, C. M., Leonard, K. E., & Fals-Stewart, W. (2011). Development of a Brief Motivational Enhancement Intervention for Intimate Partner Violence in Alcohol Treatment Settings. *Journal of Aggression, Maltreatment & Trauma*, 20(2), 103–127. doi:10.1080/10926771.2011.546749
- Scott, K. L. & Wolfe, D. A. (2003). Readiness to Change as a Predictor of Outcome in Batterer Treatment. *Journal of Consulting and Clinical Psychology*, 71(5), 879–889. doi: 10.1037/0022-006X.71.5.879
- Scott, K. L. (2004). Stage of Change as a Predictor of Attrition Among Men in a Batterer Treatment Program. *Journal of Family Violence*, 19(1), 37–47. doi:10.1023/B:JOFV.0000011581.01231.1e
- Seager, J. (2005). Violent Men the Importance of Impulsivity and Cognitive Schema. *Criminal Justice and Behavior*, 32(1), 26–49. doi: 10.1177/0093854804270625.
- Semiatin, J. N., Murphy, C. M., & Elliott, J. D. (2013). Observed behavior during group treatment for partner-violent men: Acceptance of responsibility and promotion of change. *Psychology of Violence*, 3(2), 126–139. doi: 10.1037/a0029846
- Simpson, D. D (1998). TCU data collection forms for methadone outpatient treatment. www.ibr.tcu. Edu. Referenced in Polaschek, D. L. & Ross, E. C. (2010). *Do early therapeutic*

alliance, motivation, and stages of change predict therapy change for high-risk, psychopathic violent prisoners? Criminal Behaviour and Mental Health, 20(2), 100–111.

- Singh, J. P., Desmarais, S. L., & Van Dorn, R. A. (2013). Measurement of Predictive Validity in Violence Risk Assessment Studies: A Second-Order Systematic Review. *Behavioural Sciences and the Law, 31*, 55–73. doi: 10.1002/bsl.2053
- Singh, J. P., Grann, M., & Fazel, S. (2011). A comparative study of violence risk assessment tools: A systematic review and metaregression analysis of 68 studies involving 25,980 participants. *Clinical Psychology Review, 31(3)*, 499–513. doi: 10.1016/j.cpr.2010.11.009
- Singh, J. P., Grann, M., & Fazel, S. (2013). Authorship Bias in Violence Risk Assessment? A Systematic Review and Meta-Analysis. *PLoS ONE, 8(9)*, e72484. doi:10.1371/journal.pone.0072484
- Singh, J. P., Serper, M., Reinharth, J. & Fazel, S. (2011). Structured Assessment of Violence Risk in Schizophrenia and Other Psychiatric Disorders: A Systematic Review of the Validity, Reliability, and Item Content of 10 Available Instruments. *Schizophrenia bulletin, 37(5)*, 899–912. doi: 10.1093/schbul/sbr093
- Sirotych, F. (2008). Correlates of Crime and Violence Among Persons with Mental Disorder: An Evidence-Based Review. *Brief Treatment and Crisis Intervention, 8(2)*, 171–194. doi:10.1093/brief-treatment/mhn006
- Smith, P., Waterman, M.G. & Ward, N. J. (2006). Driving aggression in forensic and non-forensic populations: Relationships to self-reported levels of aggression, anger and impulsivity. *British Journal of Psychology, 97(3)*, 387–403. doi: 10.1348/000712605X79111
- Spencer, P. C., & Munch, S. (2003). Client violence toward social workers: the role of management in community mental health programs. *Social Work, 48(4)*, 532–44. doi: 10.1093/sw/48.4.532

- Spielberger, C.D. (1999). *The State-Trait Anger Expression Inventory-2 (STAXI-2): Professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Stockdale, K. C., Olver, M. E., & Wong, S. C.P. (2014). The Validity and Reliability of the Violence Risk Scale–Youth Version in a Diverse Sample of Violent Young Offenders. *Criminal Justice and Behavior*, 41(1), 114-138. doi:10.1177/0093854813496999.
- Straus, M.A., Hamby, S.L., Boney-McCoy, S., Sugarman, D. B. (1996). The Revised Conflict Tactics Scales: Development and preliminary psychometric data. (CTS2). *Journal of Family Issues*, 17 (3), 283-316. doi: 10.1177/019251396017003001
- Sturgess, D., Woodhams, J., Tonkin, M. (2015). Treatment Engagement from the Perspective of the Offender: Reasons for Noncompletion and Completion of Treatment-A Systematic Review. *International Journal of Offender Therapy and Comparative Criminology*, 1–24. doi: 10.1177/0306624X15586038
- Taylor, N., das Nair, R., & Braham, L. (2013). Perpetrator and victim perceptions of perpetrator's masculinity as a risk factor for violence: A meta-ethnography synthesis. *Aggression and Violent Behavior*, 18(6), 774-783. doi:10.1016/j.avb.2013.09.002.
- Teixeira E. H, & Dalgarrondo, P. (2009). Violent crime and dimensions of delusion: a comparative study of criminal and noncriminal delusional patients. *The Journal of the American Academy of Psychiatry & Law*, 37(2), 225-31.
- Tolman, R. M. (1999). The validation of the Psychological Maltreatment of Women Inventory. *Violence and Victims*, 14(1), 25-37. doi: 10.1037/t02499-000
- Ttofi, M. M., Farrington, D. P., & Lösel, F. (2012). School bullying as a predictor of violence later in life: A systematic review and meta- analysis of prospective longitudinal studies. *Aggression and Violent Behaviour*, 17(5), 405–418. doi:110.1016/j.avb.2012.05.002

- Van der Knaap, L. M., Leenarts, L. E. W., Born, M. Ph., & Oosterveld, P. (2010). Reevaluating inter-rater reliability in offender risk assessment. *Crie & Delinquency*, 58(1), 147-163. doi: 10.1177/0011128710382347
- Van de Mortel, T. F. (2008). Faking it: social desirability response bias in self-report research. *Australian Journal of Advanced Nursing*, 25(4), 40-48.
- Viets, V. L., Walker, D. D. & Miller, W. R. (2002). *What is Motivation to Change? A Scientific Analysis*, in *Motivating Offenders to Change: Guide to Enhancing Engagement in Therapy* (ed M. McMurran), John Wiley & Sons, Ltd, West Sussex, England. doi: 10.1002/9780470713471.ch2
- Wallinius, M., Johansson, P., Larden, M. & Dernevik, M. (2011). Self-Serving Cognitive Distortions and Antisocial Behaviour Among Adults and Adolescents. *Criminal Justice and Behavior*, 38(3), 286-301. doi: 10.1177/0093854810396139
- Walters, G. D. (2001). Revised validity scales for the Psychological Inventory of Criminal Thinking Styles (PICTS). *Journal of Offender Rehabilitation*, 32, 1-13. doi: 10.1300/J076v32n04_01.
- Ward, T., Day, A., Howells, K. & Birgden, A. (2004). The multifactor offender readiness model. *Aggression and Violent Behavior*, 9(6), 645-673. doi:110.1016/j.avb.2003.08.001
- Ware, J., Cieplucha, C. & Matsuo, D. (2011). The Violent Offenders Therapeutic Programme (VOTP) – Rationale and effectiveness. *Australasian Journal of Correctional Staff Development*. Retrieved from <http://www.bfcsa.nsw.gov.au/journal/ajcsd>.
- Watt, B. D., & Howells, K. (1999). Skills training for aggression control: Evaluation of an anger management programme for violent offenders. *Legal and Criminological Psychology*, 4(2), 285– 300. doi: 10.1348/135532599167914
- Webster, C., Douglas, K., Eaves, D., & Hart, S. (1997). *HCR-20: Assessing risk for violence*. Burnaby, BC: Simon Fraser University, Mental Health, Law and Policy Institute.

- Whitelaw, S., Baldwin, S., Bunton, R., & Flynn, D. (2000). The status of evidence and outcomes in Stages of Change research. *Health Education Research*, 15(6), 707-718. doi: 10.1093/her/15.6.707.
- Williamson, P., Day, A., Howells, K., Bubner, S., & Jauncey, S. (2003). Assessing Offender Readiness to Change Problems with Anger. *Psychology, Crime & Law*, 9(4), 295-307. doi: 10.1080/1068316031000073371.
- Wong, S. & Gordon, A. (2001). The violence risk scale. *Forensic Update*, 67, 19-23.
- Wong, S. C. P., & Gordon, A. (1998-2003). *Violence Risk Scale Manual*, University of Saskatchewan, Saskatchewan, Canada.
- Wong, S. C. P., & Parhar, K. (2011). Evaluation of the predictive validity of the Violence Risk Scale in a paroled offender sample: A seven-year prospective study. *Journal of Forensic Psychiatry & Psychology*, 22(6), 790-808. doi:10.1080/14789949.2011.623172.
- Wong, S. C. P., Gordon, A., & Gu, D. (2007). Assessment and treatment of violence-prone forensic clients: an integrated approach. *The British Journal of Psychiatry*, 190(49), 66-74. doi: 10.1192/bjp.190.5.s66
- Wong, S. C. P. & Gordon, A. (2006). The validity and reliability of the Violence Risk Scale: A treatment friendly risk assessment tool. *Psychology, Public Policy and Law*, 12(3), 279-309. doi: 10.1037/1076-8971.12.3.279
- World Health Organization. (WHO; 1993). *International classification of diseases (ICD-10): Diagnostic criteria for research*. Geneva: Author.
- Yang, M., Wong, S. C., & Coid, J. (2010). The Efficacy of Violence Prediction: A Meta-Analytic Comparison of Nine Risk Assessment Tools. *Psychological Bulletin*, 136(5), 740-767. doi: 10.1037/a0020473
- Yesberg, J. A., & Polaschek, D. L. L. (2014). Using Information from the Violence Risk Scale to Understand Different Patterns of

Change: An Exploratory Investigation of Intensively Treated Life-Sentenced Prisoners. *Journal of Interpersonal Violence*, 29(16), 2991 –3013. doi: 10.1177/0886260514527824

Zalmanowitz, S. J. Babins-Wagner, R., Rodger, S., Corbett, B. A., & Leschied, A. (2013). The Association of Readiness to Change and Motivational Interviewing with Treatment Outcomes in Males involved in Domestic Violence Group Therapy. *Journal of Interpersonal Violence*, 28(5), 956–974. doi: 10.1177/0886260512459381.

Zhang, X., Chen, X., Hu, J., Zhang, X., Hu, J., & Cai, W. (2012). Reliability of the Violence Risk Scale of Chinese version. *Journal of Forensic Medicine*, 28(5), 32-35.

APPENDIX A

A Systematic Review of the Importance of Motivation in Violence Reduction Treatment for Adult Male Offenders

Search Terms

Population

Adult Male Offenders
Criminals
Antisocial behaviour
Prisoners
Mentally ill prisoners
Mentally disordered offenders

Intervention

Motivation to change
Motivation to
engage/treatment
Treatment engagement
Internal & external motivation
Readiness to change
Treatment Readiness
Stage of change
Empowerment
Transtheoretical model
Volition
Violent Offender Treatment
Intervention
Prevent*
Treat*
CBT
Psychotherapy
Behaviour programme
Correctional Intervention
Outcome
Effectiveness

Efficacy
Treatability
Treatment response

Comparator

Treatment non-completers
Treatment dropout
Refusal to engage

Attrition

Drop Out

Outcome

Violen*
Violent behaviour
Violent offence
Violent recidivism
Fighting
Anger
Aggress*
Aggressive behaviour
Intimate partner violence
Domestic Violence
Battery
GBH
Assault
Bodily Harm
Robbery
Wounding
Attacks

APPENDIX B

If the answer 'No' was given to the questions in red then the study must be excluded

Page 135 of 157

Did the study measure its stated hypotheses?						
2. Study Design:						
What was the design used:						
5 Points = Randomized Controlled Trial (RCT)						
4 Points = Controlled Clinical Trial						
3 Points = Case Control						
2 Points = Cohort (one group pre & post)						
1 Point = Other						
Was the design appropriate to the research question?						
3. Sampling and Selection Bias						
Were the participants similar at baseline?						
Is the sample representative of the general population of offenders (e.g. ethnicity, facility etc)						
Does the sample have the specific level of power? (0.8)						
4. Measurement Bias for Exposure (Motivation)						
Is the measurement tool standardised?						
Is the measurement tool valid?						
Is the measurement tool reliable?						
Were the participants assessed in a consistent manner? (e.g. Same setting)						
Are the same measurement tools being used for both matched participants and controls (if applicable)?						
Have confounding factors been controlled for? (e.g. length of sentence, medication effects etc)						
	Yes	No	Unclear	N/A	Comments	Score
5. Measurement Bias for Outcome (reduced violence/aggression/anger or dropout)						
Is the measurement tool specifically measuring violence/aggression/anger/dropout?						
Is the measurement tool valid?						
Is the measurement tool reliable?						

Were the participants assessed in a consistent manner? (e.g. setting)						
Are the same measurement tools being used for both matched participants and controls (if applicable)?						
Was the outcome assessor blind to the exposure status of participants?						
Is the measurement tool standardised?						
Have confounding factors been controlled for? (e.g. Level of security, periods in seclusion etc)						
6. Attrition Bias						
Are those who stayed and those who left similar overall?						
Has anyone dropped out due to behavioural difficulties? (E.g. offending, violence etc.)						
7. Statistical Bias						
Are the results a valid interpretation of the data?						
Are the results generalisable?						
Are all the results reported? (E.g. significant and non-significant)						
Total						

APPENDIX C

Data Extraction Sheet

A Systematic Review of the Importance of Motivation in Violence Reduction Treatment for Adult Male Offenders

General information

Date form completed (dd/mm/yy)	
Name/ID of person extracting data	
Study title (title of paper/ abstract/ report that data are extracted from)	
Study ID (1st & 2nd Initial, Date_ no. – e.g. JF2008_001)	
Type of study (cohort, RCT, case control)	
Reference details	
Study author contact details	
Publication type (e.g. full report, abstract, letter)	
Study funding source (including role of funders)	
Possible conflicts of interest (for study authors)	
Country of origin	

INCLUDE

☐

EXCLUDE

☐

Reasons:

Specific information

1. Population Characteristics	Description	Location in text (pg & ¶/fig/table)
Target population		
Recruitment procedures (participation rates if available)		
Sample size		

2. Characteristics of participants before measure		
Age - over 18?		
Gender		
Mental Illness recorded		
Offending history recorded		
Family SES		
Geographical region		
Ethnicity		
Setting		
Reasons for allocation to intervention (describe)		
Other information (e.g. treatment received)		
Number of participants in each group	1)	
	2)	
	3)	
	4)	

3. Exposure		
Type of motivation studied (internal/external, stage of change,		

readiness etc)		
Was motivation measured before treatment?		
Definition/Classification system used to distinguish (motivated/not motivated)		
Assessment tool used to measure motivation		
Type of tool used (self-report, observation etc)		
Assessors (e.g. no., profession, training, blinded etc)		
Number of conditions (including control conditions)		
Number of participants in each condition a) Group A - b) Group B - c) Group C - d) Group D -		
Content of each condition e) Group A - f) Group B - g) Group C - h) Group D -		
Specific theoretical model (e.g. stages of change, MORM)		
Exposure setting (e.g.		

prison, hospital)		
Duration of exposure a) Group A b) Group B c) Group C d) Group D		
What mediating variables were investigated (e.g. cognition, mood etc)		

4. Outcomes and outcome measures		
Name of intervention(s)		
Type of intervention studied (CBT, anger management, VOTP)		
Type of outcome measured (e.g. recidivism, institutional aggression, violent/sexually violent thoughts, anger etc)		
Time points measured (specify whether from start, mid, end, FU of intervention)		
What measurement tool was used (e.g. observation, self-report, clinician assessed)?		

What was measured at baseline?	a)	
	b)	
	c)	
	d)	
What was measured after exposure (or at the follow-up)?	a)	
	b)	
	c)	
	d)	
Was there a follow up?		
If so, how long?		
Was the assessor blind?		
Was/were the tool(s) validated?		
If so, how?		
Time interval between first and last measurement		
Drop-out rates (plus proportion of those who did not agree to participate, if possible)		
Reasons for drop-out reported?		
Overall attendance (e.g. percentage number of sessions attended, when in treatment did drop out occur?)		
Notes		

5. Analysis		
Statistics used (unit of analysis)		
Adjustment of analyses required? (e.g. for correlation)		

Reanalysis required? If so, record results here			
Mean value (with variance measure e.g. SD or SE)	Pre Intervention:	Post Intervention:	
Difference in means (post – pre)			
How was the impact of motivation analysed?			
Was the intervention shown to be effective?			
Did motivation have an impact on outcome? (e.g. violence/ anger /dropout)			
Report measures of effects here (e.g <i>t</i> , <i>F</i> , <i>r</i> , etc., means, Sds):			
Were the results statistically significant?			
If not was this discussed?			
How was missing data dealt with?			
Study limitations reported			
Notes			

CASE REPORT FORM

How Far Does Motivation Impact Outcome on the
Violent Offender Treatment Programme (VOTP)? A
Cross Site Comparison

Chief Investigator: Vincent Egan

Principal Investigator: Lauren Berry

Sponsor Number: 15051

Type of secure site: High

Participant No.

6	7				
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CRF Completion Instructions

General

This form is for data collection purposes only so a copy will not be placed in the patient's file.

Complete the CRF using a **black ballpoint pen** and ensure that all entries are complete and legible.

Avoid the use of abbreviations and acronyms.

The CRF should be completed as soon as possible after participant contact.

Do not use subject identifiers anywhere on the CRF, such as name, hospital number etc., in order to maintain the confidentiality of the subject. Ensure that the header information (i.e. ID number) is completed consistently throughout the CRF.

Each CRF page should be signed and dated by the person completing the form.

CRFs should only be completed by individuals delegated to complete CRFs.

Corrections to entries

If an error is made, draw a single line through the item, then write the correct entry on an appropriate blank space near the original data point on the CRF and initial and date the change.

Do NOT

- Obscure the original entry by scribbling it out
- Try to correct/ modify the original entry
- Use Tippex or correction fluid

Verbatim Adverse Event terms (initial medical term) should be recorded as the final diagnosis whenever possible.

The Principal Investigator is responsible for the accuracy of the data reported on the CRF. The PI must sign and date the Principal Investigator's Sign Off page to certify accuracy, completeness and legibility of the data reported in the CRF.

Storage

CRF documents should be stored in a locked, secure area when not in use where confidentiality can be maintained. Ensure that they are stored separately to any other documents that might reveal the identity of the subject

OVb DATA

Group Number: W1

Missing mths: 0

Pre

Date 6 months before the start of the VOTP: 19.07.2010__ (DD / MM / YYYY)

Post

Date 6 months after the end of the VOTP: 29.02.2012__ (DD / MM / YYYY)

Note ALL keywords relating to Violence and Aggression here. Include direct and indirect violence. (See attached list and definitions)

	Pre			Post		
	Initial Search	Revised Total	Why	Initial Search	Revised Total	Why
Hostil* Hostage	1	1		0	0	
Intimidat*	1	1		2	0	
Bully*	0	0		1	0	
Anger	2	1		0	0	
Angry	5	1		0	0	
Aggress*	136	0	DASA	19	0	
Threat*	0	0		2	0	
Batter*	0	0		0	0	
GBH	0	0		0	0	
Assault*/ Attack*	20	0	past	18	0	
Harm*	24	2		57	0	unrel
Wound*	0	0		0	0	
Kill*	4	0		1	0	
Violen*	97	0	DASA	9	0	unrel
Fight*	7	0	past	1	0	
Punch*	0	0		0	0	
Kick *	0	0		0	0	
Bit*	11	1	unrel	0	0	
Smash*/Smack*	4	3		5	0	
Injur*	0	0		0	0	
Hit*	5	2		1	0	
Shout*/Yell*/ Bellow	3	2		7	1	
Throw*/Threw	3	1		5	2	
Incident	33	3	unrel	24	0	
IR1	2	0		1	1	
Total No. of Keywords		18			4	

CONCOMITANT TREATMENTS/THERAPIES

Treatment: (including medication, psychological therapies or physical treatments)	Undergone at the same time as VOTP? (Yes/No)
1. Substance Use	YES
2.	
3.	
4.	
5.	
6.	
7.	
8.	

PRINCIPAL INVESTIGATOR'S SIGN OFF

Principal Investigator's Signature Statement:	
I have reviewed this CRF and confirm that, to the best of my knowledge, it accurately reflects the study information obtained for this participant.	
Principal Investigator's Signature:  _____ Principal Investigator's Name: LAUREN BERRY	Date of Signature: 14 / 08 / 2016 (DD / MMM / YYYY)

APPENDIX E



Health Research Authority

NRES Committee Yorkshire & The Humber - Bradford Leeds

Room 001
Jarrow Business Centre
Viking Industrial Park
Rolling Mill Road
Jarrow
NE32 3DT

Telephone: 0191 428 3384

03 September 2015

Professor Vincent Egan
Room B23 Yang Fujia
Wollaton Road
Nottingham
NG8 1BB

Dear Prof Egan

Study title:	How Far Does Motivation Impact Outcome on the Violent Offender Treatment Programme (VOTP)? A Cross Site Comparison
REC reference:	15/YH/0314
Protocol number:	15051
IRAS project ID:	167981

Thank you for your letter of 24 August 2015, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Alternate Vice Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Assistant, Sarah Prothero, nrescommittee.yorkandhumber-bradfordleeds@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a **favourable** ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non-registration may be permissible with prior agreement from the HRA. Guidance on where to register is provided on the HRA website.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Sponsor Insurance Motivation & the VOTP]	1.0	22 June 2015
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [15051 Sponsor letter REC_v1.0_21Aug2015]	1.0	21 August 2015
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [2014 Public Liability Insurance_v1.0_21Aug2015]	1.0	24 August 2015
GP/consultant information sheets or letters [Letter to RCs Motivation & the VOTP Final v1.0_15Jun2015]	1.0	15 June 2015
GP/consultant information sheets or letters [Discharged Patient's Letter Motivation & the VOTP Final v1.0_15Jun2015]	1.0	15 June 2015
IRAS Checklist XML [Checklist_21082015]		21 August 2015
Letter from sponsor [REC Sponsor Letter Motivation & the VOTP]	1.0	22 June 2015
Letter from sponsor [15051 Sponsor letter REC_v1.0_21Aug2015]	1.0	24 August 2015
Other [Case Report Form Motivation & the VOTP Final v2.0_13Aug2015]	2.0	24 August 2015
Other [Email from Louise Braham Motivation & the VOTP_v1.0_13Aug2015]	1.0	24 August 2015
Other [Email from Sharon Oddie Motivation & the VOTP_v1.0_13Aug2015]	1.0	24 August 2015
Participant consent form [CONSENT FORM Motivation; VOTP Final v1.0_15Jun2015]	1.0	15 June 2015

Participant information sheet (PIS) [INFO SHEET Motivation; VOTP Final v1.0_15Jun2015]	1.0	15 June 2015
REC Application Form [REC_Form_03092015]		03 September 2015
Research protocol or project proposal [PROTOCOL_ Motivation & the VOTP Final v1.0_15Jun2015]	1.0	17 June 2015
Research protocol or project proposal [PROTOCOL_ Motivation & the VOTP Final v3.0_13Aug2015]	3.0	21 August 2015
Research protocol or project proposal [PROTOCOL_ Motivation & the VOTP Final v3.0_13Aug2015]	3.0	24 August 2015
Response to Request for Further Information	L. Berry	
Summary CV for Chief Investigator (CI) [Vince Egan (CI)_CV Motivation & the VOTP]	1.0	22 June 2015
Summary CV for Chief Investigator (CI) [Vince Egan (CI)_CV Motivation & the VOTP_v1.0_15Jun2015]	1.0	21 August 2015
Summary CV for Chief Investigator (CI) [Vince Egan (CI)_CV Motivation & the VOTP_v1.0_15Jun2015]	1.0	24 August 2015
Summary CV for student [Lauren Berry CV Motivation & the VOTP Final v1.0_15Jun2015]	1.0	15 June 2015
Summary CV for student [Lauren Berry (PI) CV Motivation & the VOTP_v1.0_15Jun2015]	1.0	21 August 2015
Summary CV for student [Lauren Berry (PI) CV Motivation & the VOTP_v1.0_15Jun2015]	1.0	24 August 2015

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document “*After ethical review – guidance for researchers*” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:

<http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/>

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at <http://www.hra.nhs.uk/hra-training/>

15/YH/0314	Please quote this number on all correspondence
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With the Committee's best wishes for the success of this project.

Yours
sincer
ely pp



Dr Christopher Skidmore Alternate Vice Chair

Email: nrescommittee.yorkandhumber-bradfordleeds@nhs.net

Enclosures: "After ethical review – guidance for researchers"

Copy to: Ms Angela Shone, University of Nottingham

Ms Shirley Mitchell , Nottinghamshire Healthcare NHS Foundation Trust

APPENDIX F



Title of Case Study: Individual Offence Work Using a VOTP Informed Approach: A Case Study

Name of Researcher: Lauren Berry (Trainee Forensic Psychologist)

Study Summary

As part of my doctoral research and training I have been asked to complete a case study of an individual I am working with. This means that work I do with this person will be written up into a piece of work and will be submitted to the University of Nottingham. The requirements of the study are:

- That I give full details of the assessment methods used including observations, interviews and other assessments;
- Complete a formulation of the problem that has been identified to consider how the problem arose and why it has continued;
- Describe what intervention was done and briefly describe the how well the individual engaged;
- Give details of any follow-up that was conducted;
- The process will be explained to you throughout and hospital procedures will be followed in regard to confidentiality and information sharing.

How Am I Involved?

Your role in the study is to provide consent for the work to be written up in the manner described above and to allow the researcher to describe the process of the intervention from assessment to conclusion. All your information will be anonymised so that people can't identify you from what is written. Your participation in the study WILL NOT affect your treatment or care in any way. In addition if you chose not to participate or to withdraw your information at a later point this WILL NOT affect your treatment, progress or care in any way. The University of Nottingham will own the rights to the study but you can request a copy at any point should you want one.

For More Information

Please feel free to contact Lauren Berry to discuss this project further. This can be done through the usual routes of contact in the Psychology department at Wathwood hospital. Alternatively if you require information after October 2015 you can contact Lauren Berry at the University of Nottingham on the address below and asking for a message to be passed on:

Room B22 YANG Fujia Building
Jubilee Campus
Wollaton Road
Nottingham
NG8 1BB
psychology-enquiries@nottingham.ac.uk

CONSENT FORM

Title of Case Study: Individual Offence Work Using a VOTP Informed Approach: A Case Study

Name of Researcher: Lauren Berry (Trainee Forensic Psychologist)

Name of Participant: _____

Please initial box

1. Details of the nature and aims of the study have been explained to me verbally by the researcher. ☒
2. I understand that I have been asked to complete approximately 16-20 sessions of Offence Work that is VOTP informed and that any information gained from this intervention will be recorded and used as a Case Study. ☒
3. I understand that any information used in the study will be anonymised before being seen by people other than the relevant staff within the hospital. ☒
4. understand that my participation is voluntary and that I am free to withdraw my information at any time, without giving any reason, and without my treatment or legal rights being affected. ☒
5. I understand that I will be asked to complete some psychological assessments before and after the intervention and that the results of these assessments will be included in the final reports. ☒
6. I understand that on completion of this intervention two written reports will be completed. One report will be supplied to my medical team and contain personal data as per hospital procedures and the other will be anonymised and submitted to the University of Nottingham as academic research. ☒

the University of Nottingham as academic research.

7. I agree to my responsible clinician being informed of my participation in this study. ☒
8. I agree to take part in the above study. ☒

Name of Participant

9/3/15

Date

Signature

LAUREN BERRY

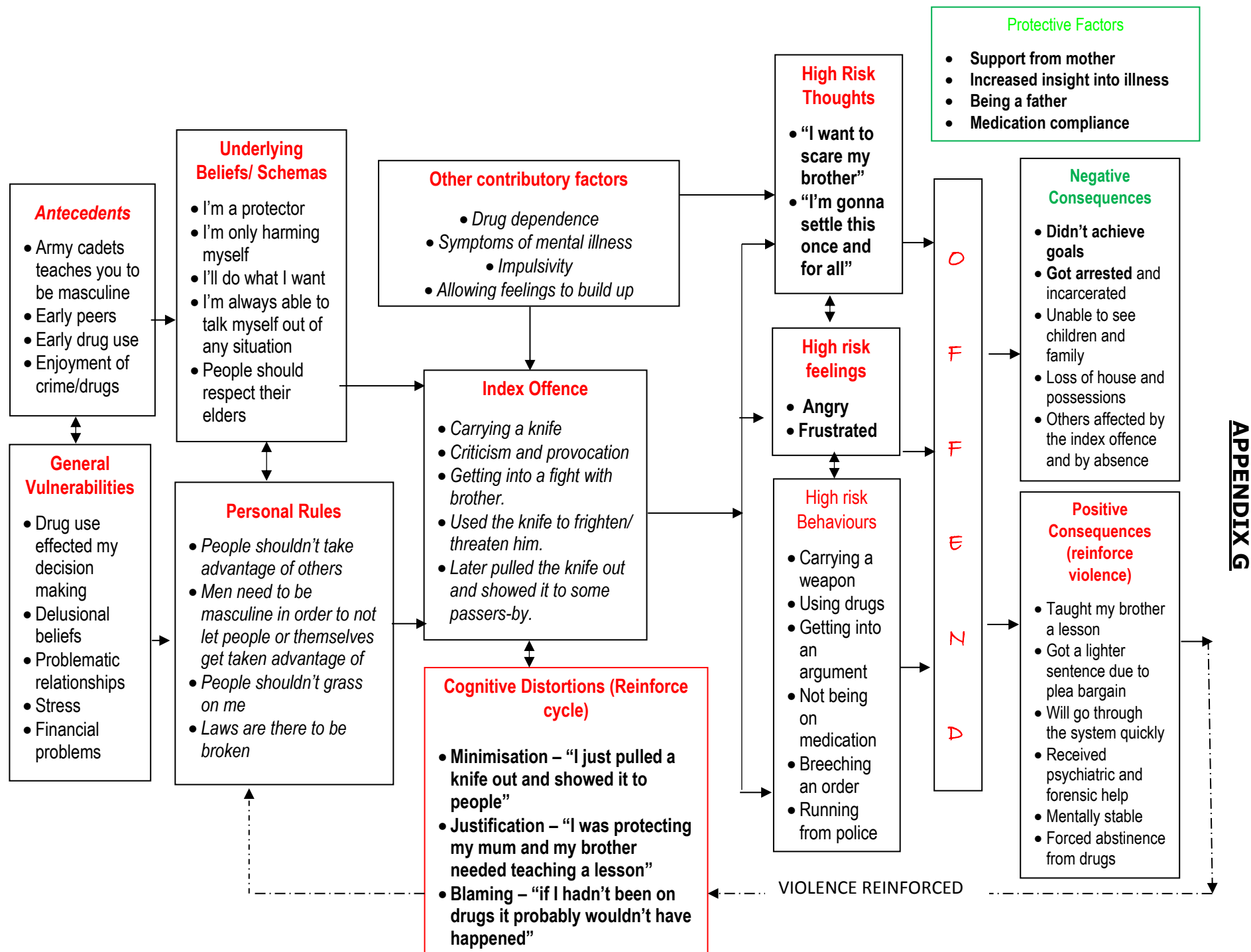
Name of Researcher

9/3/2015

Date

Signature

3 copies: 1 for participant, 1 for the project notes and for the medical psychiatric notes of participant



APPENDIX H

Table of Results of the Pre and Post Psychometric Assessments

	Pre	Post	Norms	r	RCI*	>1.96 Yes/No	
*RCI	PICTs		-	-	-	-	was
	Cnf	48	43				
	Def	45	43				
	MO	50	38				
	CO	50	44				
	EN	41	38				
	PO	39	39				
	SN	49	36				
	SO	56	44	50 (10)	.55	1.26	No
	CI	54	40				
	DS	50	44				
	CUR	45	39	50 (10)	.55	0.63	No
	HIS	47	42				
	PRB	52	43				
	HOS	42	42				
	AST	47	44				
	DNH	49	40				
	FOC	47	43				
	Total	251	196				
	BIS-11	56	55	69.74 (11.54)	.83	0.16	No
	SPSI	16.96	17.20	10.22 (3.70)	.68	-0.08	No
	PPO	97	108		-	-	-
	NPO	77	74				
	PDF	95	102				
	GAS	97	113				
	DM	97	97				
	SIV	98	91				
	RPS	110	116				
	ICS	71	75				
	AS	82	82				
	VRS	55	46.5	41	.25	0.61	No
		50> = high	35-49 = med	(11.40)			

calculated using the following formula:

$$RC = \frac{x1-x2}{Sdiff} \quad Sdiff = \sqrt{2(SE)^2} \quad SE = \sqrt{1-rxx}$$

The RCI had to be greater than 1.96 to be significant

