INVESTIGATING THE RELATIONSHIP BETWEEN AGGRESSIVE BEHAVIOUR IN PRISON, PAROLE RELEASE DECISIONS AND VIOLENT RECIDIVISM

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General Declaration

Declaration for thesis based or partially based on conjointly published or unpublished work.

In accordance with Monash University Doctorate Regulation 17/ Doctor of Philosophy and Master of Philosophy (MPhil) regulations the following declarations are made:

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes one original paper published in a peer reviewed journal, one manuscript in press and two unpublished manuscripts. The core theme of the thesis was the investigation of the relationship between aggressive misconduct during imprisonment, the parole release decision and violent offending following release into the community. The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the candidate, working within the School of Psychology and Psychiatry under the supervision of Associate Professor Michael Daffern. The inclusion of a co-author reflects the fact that the work came from active collaboration between researchers and acknowledges input into team-based research.

In the case of Chapters 1, 3, 4 and 5, my contribution to the work involved the following:

A review of the relevant literature, study design, data collection and analysis, and preparation of the paper.

Thesis chapter	Publication title	Publication Status	Nature and extent of candidate's contributions
1	Institutional aggression as a predictor of violent recidivism: Implications for parole decision making	Published	As above
3	Elucidating the factors that influence parole decision making and violent offenders' performance on parole	In press	As above
4	The relationship between aggressive behaviour in prison and violent offending following release	Submitted	As above
5	The Offence Analogue and Offence Reduction Behaviour Rating Guide as a supplement to violence risk assessment in incarcerated offenders	Submitted	As above

I have renumbered sections of submitted or published papers in order to generate a consistent presentation within the thesis.

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Abstract

Across multiple jurisdictions internationally, the decision to release an offender on parole is at the discretion of parole board members. Investigation of the factors that influence parole release decisions is therefore an important focus for empirical research. Existing research indicates that aggressive behaviour during imprisonment is among the factors considered by parole boards, and may be viewed by board members as an indication of increased risk for future violence. However, research examining the relationship between aggression in custody and violence post-release is somewhat limited. Extant research suggests there is a significant association between aggressive misconduct in custody and violent recidivism; yet the strength of this relationship varies. Several processes may influence the expression and detection of aggressive behaviour in custody. These include environmental factors that may encourage or discourage aggression, an offender's development of skills to avoid the detection of aggressive misconduct, and the process of adaptation to the prison environment that has been observed in incarcerated offenders. These processes complicate the use of institutional behaviour in violence risk assessments and suggest the presence or absence of aggressive misconduct may not provide an accurate indication of an offender's risk for future violence. The Offence Analogue and Offence Reduction Behaviour Rating Guide (Gordon & Wong, 2009) provides a structured methodology for monitoring behaviour during imprisonment that may be indicative of ongoing criminogenic needs linked to violence (Offence Analogue Behaviour; OAB) or prosocial behavioural change (Offence Reduction Behaviour; ORB). This tool was designed as a supplement to the Violence Risk Scale (VRS, Wong & Gordon, 2000) and is yet to be empirically validated.

Against this background, three empirical studies were conducted utilising a sample of violent offenders incarcerated in Victoria, Australia, and subsequently released into the community. Pre-release data was collected via retrospective file review and outcome data relating to parole cancellation and violent criminal charges was collected from the official records of the Adult Parole Board of Victoria and Victoria Police.

The first research aim was to identify variables associated with 1) the parole release decisions made by the Adult Parole Board of Victoria and 2) the cancellation of an offender's parole order. Of particular interest was the role of aggressive misconduct, which was one of a larger set of demographic, criminal history, offence-related, institutional and parole-related variables examined. Bivariate data analysis illustrated that aggressive misconduct was among several variables significantly associated with the parole decision. At the multivariate level the release recommendations of Community Corrections Officers and violence risk, as measured by the VRS, remained significant predictors; however, aggressive misconduct did not. Further investigation revealed that aggressive misconduct was also significantly associated with release recommendations provided by Community Corrections Officers to the parole board. Aggressive misconduct was not among the factors significantly related to parole cancellation in bivariate analyses. At the multivariate level, only family support remained a significant predictor.

The second research aim was to investigate whether aggressive misconduct during imprisonment was significantly associated with violent criminal charges following release into the community when controlling for violence risk. The findings illustrated that offenders who were aggressive on three or more occasions during

imprisonment were charged with a violent offence sooner than those with no recorded aggressive misconduct. There was no significant difference in the time to violent charge for offenders who were aggressive on one or two occasions compared to offenders with no recorded aggressive misconduct. A proportion of offenders who were not aggressive in custody went on to reoffend violently, whereas some offenders who were aggressive on three or more occasions did not go on to reoffend violently.

The third research aim was to examine whether the OABs and ORBs comprised in the Offence Analogue and Offence Reduction Behaviour Rating Guide could be identified and recorded during imprisonment, and secondly, to establish whether these behaviours were associated with violent criminal charges post-release. The results of this study showed that OABs and ORBs can be identified during imprisonment, and some of these behaviours are significantly associated with time to violent charge following release. Most of the significant predictors were ORBs indicating prosocial behavioural improvement.

Together these findings highlight that aggressive misconduct during imprisonment influences parole release decision making. However, release recommendations provided by Community Corrections Officers and violence risk level are more influential. The results indicate that repeated aggressive misconduct is associated with violent recidivism. However, official records of misconduct provide limited information to aide risk assessments and release decision making. The Offence Analogue and Offence Reduction Behaviour Rating Guide may prove a useful supplement to formal violence risk assessment procedures in incarcerated offenders. Although, prospective empirical scrutiny of this measure is required. The results highlight the importance of looking beyond the presence or absence of aggressive

misconduct when using institutional behaviour to inform risk appraisals, and attending to evidence of prosocial behavioural change. These findings hold important implications for release decision makers and clinicians charged with the task of assessment, management and reduction of violence risk in custodial settings.

Papers published or submitted during candidature

Mooney, J.L. & Daffern, M. (2011). Institutional aggression as a predictor of violent recidivism: Implications for parole decision making. *International Journal of Forensic Mental Health, 10*, 52-63.

Mooney, J.L. & Daffern, M. (in press). Elucidating the factors that influence parole decision making and violent offenders' performance on parole. *Psychiatry, Psychology and Law.*

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INTRODUCTION AND THESIS OVERVIEW

Background and overview of thesis

The assessment of risk for future violence is an important task regularly undertaken by mental health professionals, clinicians in correctional environments and release decision makers. As a result of criticism regarding the adequacy of unaided clinical appraisals of risk (Monahan, 1981), violence risk assessment procedures have seen marked advancements over recent decades, resulting in the development of actuarial (VRAG; Quinsey, Harris, Rice & Cormier, 1998) and structured professional judgement (SPJ) measures (HCR-20; Webster, Douglas, Eaves & Hart, 1997; VRS; Wong & Gordon, 2000). Actuarial and SPJ measures have comparable predictive accuracy (Douglas, Yeomans, & Boer, 2005; Yang, Wong & Coid, 2010) that is considered stronger than unaided approaches (Andrews & Bonta, 2006; Ægisdóttir, White, Spengler, Maugherman, Anderson, Cook, Lampropoulos, Walker, & Cohen, 2006; Grove, Zald, Lebow, Snitz, & Nelson, 2000). However, the latter may facilitate the re-appraisal of violence risk and inform the treatment and management of violent offenders (Douglas & Kropp, 2002; Yang et al., 2010). As an offender progresses through the criminal justice system there are several intervals at which their risk for future violence may be assessed. One such juncture is the decision as to whether an offender should be granted conditional release on parole.

Parole authorities are routinely charged with the task of assessing risk for future violence, which forms an integral element of the release decision-making process. Despite the increase in mandatory sentencing structures and the automatic release of offenders over recent decades, a discretionary decision-making approach is still adopted to varying degrees by multiple parole authorities internationally (Kinnevy & Caplan,

2008). In jurisdictions where a discretionary process is maintained, parole board members are typically provided with decision-making guidelines, and their decisions may be supplemented with validated risk assessment measures. However, these guidelines may be broad, contain an extensive list of variables for consideration, and provide no or limited guidance regarding how such factors should be weighed and integrated to produce the ultimate release judgement (Gobeil & Serin, 2009). Therefore, for the most part, the factors considered by parole boards are at the discretion of parole board members. The use of discretionary decision-making approaches has several potential limitations, including a lack of transparency, consistency and the potential for bias (Bonham, Janeksela & Bardo, 1986; Carroll, 1978; Grove & Meehl, 1996). As such, it is important to examine parole release decision making.

One direction for such research is the investigation of the factors that influence the parole decision, and the consideration of whether such factors are linked to an offender's completion of their parole order and criminal recidivism post-release. These outcomes are of importance for several reasons. Firstly, successful prisoner re-entry is of growing importance given the range of costs associated with returning parolees to prison (including costs at the individual, family, community and government level; Petersilia, 2001). Secondly, violent recidivism has serious outcomes for victims and may result in detrimental consequences for the parole board responsible for releasing the perpetrator (e.g. derogatory media coverage). Finally, the decision to deny release results in costs to the offender in the form of ongoing restriction of their freedom, and associated social, psychological and financial implications for the offender and their family. Some empirical attention has been directed toward the investigation of the factors that influence parole release decisions. However, this body of research has

limitations, including a lack of contemporary research and the examination of inconsistent sets of variables between studies (Caplan, 2007; Morgan & Smith, 2005). Further, there is no known research examining the factors that influence parole decisions in Victoria, Australia. Different legislation and parole decision-making guidelines govern the release decisions made between jurisdictions, and differential emphasis may be placed on factors for consideration in the release decision. This may contribute to the mixed findings regarding the factors that most strongly predict the outcome of parole decisions, and indicates the importance of conducting research across jurisdictions.

Of interest in the current research is aggressive and violent behaviour during imprisonment. Research has demonstrated that these behaviours are among the key factors considered in parole decisions (Carroll, Weiner, Coates, Galegher & Alibrio, 1982; Huebner & Bynum, 2006; Kinnevy & Caplan, 2008). Institutional aggression is of particular relevance to release decision making for violent offenders. Acts of aggression during imprisonment may influence release decisions for several reasons. The parole system may facilitate the management of offender behaviour in custody by denying parole to offenders who engage in misconduct, with the goal of discouraging this behaviour (Proctor & Pease, 2000). Another underlying influence may be the view that aggressive behaviour during imprisonment indicates an increased risk for violence post-release. This raises questions about the continuity of aggressive behaviour across custodial and community settings and prompts consideration of whether institutional aggression is a valid predictor of violent recidivism.

The body of literature examining the link between aggressive behaviour in custody and violence post-release is limited, particularly in relation to adult violent

offenders. Existing research suggests aggressive misconduct is linked to violence following release; however, the strength of the relationship varies between studies (Heil, Harrison, English, & Ahlmeyer, 2009; Lattimore, Visher, & Linster, 1995; Trulson, DeLisi, & Marquart, 2011). Research has demonstrated that similar factors predict prison misconduct and criminal recidivism (Gendreau, Goggin, & Law, 1997), and that correctional treatment programs that are effective in reducing misconduct are also effective at reducing criminal recidivism (French & Gendreau, 2006). This provides some support for the view that institutional aggression may serve as a useful proxy for violence in the community.

When examining aggressive and violent behaviour in custody, the influence of the environment on behaviour requires consideration. Correctional environments are designed to minimise the occurrence and facilitate the detection of aggressive behaviour among the prison population. Researchers have highlighted the potential for this unique environment to suppress or alter an offender's aggressive behaviour (Daffern, 2010; Jones, 2004) by way of removing some antecedents that typically precede an individual's aggression in the community, or prompting offenders to develop skills to avoid the detection of their aggressive behaviour (Detection Evasion Skills; Jones, 2004). Certain aspects of the prison environment may also serve to provoke aggression, such as over-crowding (Porporino, 1986), high turn-over rates, and problematic interpersonal interactions between custodial staff and prisoners (Bottoms, 1999). Therefore, it may be unclear whether the presence or absence of aggression in custody accurately represents an offender's ongoing propensity for violence following release.

The complexity of institutional aggression may present difficulty for risk assessors who are required to consider the relevance of aggressive behaviour, or its

absence, to their risk assessment. Further, clinicians working within correctional environments are often provided with little more than official records of misconduct; these may lack detail regarding the nature and context of the behaviour. If institutional aggression is a valid risk factor, the manner in which this information can be incorporated into existing risk assessment procedures requires further consideration.

Contemporary researchers have encouraged a shift toward prevention-based approaches to the assessment and management of violence risk (Douglas & Kropp, 2002). Emphasis has been placed on the development and validation of assessment methods incorporating dynamic factors that capture an individual's 'risk state' (Douglas & Skeem, 2005) and case-formulation driven approaches (Daffern, Jones, Howells, Shine, Mikton, & Turnbridge, 2007; Hart, Sturmey, Logan, & McMurran, 2011). Against this background, various methodologies for incorporating institutional behaviour into risk assessment and reduction procedures have emerged. One such approach is the so-called Offence Paralleling Behaviour (OPB; Jones, 2004; Daffern, et al., 2007) framework, which has emerged as a potential supplement to structured risk assessment methods. The OPB framework provides a means of identifying idiographic patterns of behaviour that manifest within custodial environments and are functionally similar to an individual's offending behaviour (Daffern et al., 2007). The frequency of these sequences of behaviour may be monitored as a means of assessing ongoing risk, and may provide a focus for clinical interventions. However, the OPB framework is in the early stages of development and requires empirical validation.

Another method through which institutional behaviour may be incorporated into the process of assessing and reducing risk, is by looking for behavioural indicators of criminogenic needs within the custodial environment. For this purpose, Gordon and

Wong (2009) developed the Offence Analogue and Offence Reduction Behavior Rating Guide. This rating guide was designed to supplement violence risk assessments in custodial environments conducted using the Violence Risk Scale (VRS; Wong & Gordon, 2000), a structured professional judgement measure comprised of a set of static and dynamic risk factors. The rating guide directs clinicians to look for behavioural manifestations of each dynamic VRS factor, referred to as Offence Analogue Behaviours (OABs). Clinicians are also required to look for prosocial behaviours said to indicate risk reduction (Offence Reduction Behaviours; ORBs). A decrease in the frequency of OABs and an increase in ORBs on a risk factor relevant for the offender is said to indicate a reduction in violence risk (Gordon & Wong, 2009).

This measure is yet to be validated; however, it provides a structured methodology to assist clinicians in the task of monitoring behaviours in custody that may represent an offender's ongoing criminogenic needs linked to violence (Gordon & Wong, 2010). This broadens the focus from overt aggressive and violent behaviour during imprisonment (e.g. verbal abuse or physical violence) to include behavioural representations of dynamic risk factors, and in this way may provide a useful mechanism for incorporating institutional behaviour into risk assessments of incarcerated offenders. Recent research conducted by Lewis, Olver and Wong (2012) illustrated the dynamic nature of the VRS dynamic risk factors and demonstrated that change in these factors measured pre and post treatment corresponded to reductions in violent recidivism. This suggests that OABs and ORBs, said to represent behavioural manifestations of these risk factors, may act as treatment targets for interventions designed to address violent offending. Therefore, upon further validation the OAB and

ORB rating guide may provide a useful adjunct to the VRS for assessing and monitoring change in dynamic risk factors in incarcerated offenders.

Research aims

Against this background, this thesis has three distinct yet related research aims.

Research aim one

There has been a lack of research examining the factors that influence parole release decision making and whether these factors are linked to an offender's successful completion of parole. The first research aim is two-fold: 1) to investigate the factors that significantly predict the parole decision made by the Adult Parole Board of Victoria (APB) for a sample of violent offenders; and 2) to establish which factors, including those that predict the parole decision made by the APB, are significantly associated with the cancellation of an offender's parole order. Aggressive misconduct is included in the set of independent variables examined in this study. Although it is not an explicit focus of this study, the relationship between aggressive misconduct, the parole decision and parole performance will be elucidated.

Research aim two

There is a scarcity of research examining the link between aggressive misconduct in custody and violent recidivism following release. Further, no known Australian research has examined this relationship while controlling for violence risk, as measured by a contemporary risk assessment measure. Therefore, the second research aim is to examine whether aggressive misconduct during imprisonment significantly predicts violent criminal charges post-release in a population of violent offenders. This

relationship will be explored while controlling for the effects of risk for future violence as measured by the VRS (Wong & Gordon, 2000).

Research aim three

The OAB and ORB rating guide is yet to be validated and there is no known research documenting the application of this measure in a correctional setting. It is unclear whether these behaviours may be detected during imprisonment and how frequently these behaviours manifest, and are noticed and documented by prison staff. Therefore, this research aims to explore whether the OABs and ORBs representing the dynamic factors in the VRS are identifiable and recorded over the prison sentence of a population of violent offenders. Further, this research aims to explore whether the frequency of these behaviours is related to violent recidivism post-release.

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Thesis outline

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This program of research was conducted with the support of the APB, Corrections Victoria and Victoria Police. The research aims were investigated in a population of violent offenders sentenced to a period of imprisonment in one of Victoria's correctional centres and subsequently released into the community.

At the outset it is important to define some key terms used throughout this thesis. A key focus of this research is the aggressive behaviour of offenders during their period of imprisonment. The terms 'institutional aggression', 'aggressive misconduct' and 'aggressive disciplinary incidents' are used interchangeably throughout this thesis to describe aggressive behaviour during imprisonment. The term 'parole cancellation' is also used throughout this thesis. In Victoria, this term refers to the cancellation or revocation of an offender's parole order following their release from prison. In other

jurisdictions this may be referred to as 'parole revocation'. The latter term may be used when research conducted in these jurisdictions is discussed.

This thesis comprises six chapters, including one published manuscript, one manuscript in press, and two manuscripts that have been submitted for publication.

Chapter one presents a review of the literature that shaped the aims of the research undertaken as part of this thesis. This literature review covers several domains including a discussion of the factors that influence parole decisions, the role of risk assessment in parole decision making, and the use of institutional behaviour in the risk assessment of incarcerated offenders.

Chapter two describes the integrated methodology utilised in the three empirical studies incorporated in this thesis. The subjects included in each study are described, followed by the data collection procedure. The data collection procedure consisted of two phases. The first comprised a case file review guided by a data collection protocol developed for the purpose of this research. The second phase consisted of the collection of data relating to parole cancellation and violent recidivism, obtained from the APB and Victoria Police respectively. Data analysis procedures and ethical approval are also outlined.

Chapter three presents the first empirical study. This study examines the factors that influence the parole release decisions made by the APB, and the subsequent association of these factors to parole cancellation post-release.

The fourth chapter comprises the second empirical study, which examines the relationship between aggressive misconduct in prison and violent recidivism following release.

The third empirical study is presented in chapter five. This describes an investigation of the utility of the Offence Analogue and Offence Reduction Behaviour Rating Guide as a supplement to the VRS when assessing risk for violence in this sample of incarcerated offenders. This study includes an examination of the relationship between the frequency of the OABs and ORBs for each dynamic VRS factor and violent recidivism following release.

The sixth and final chapter of this thesis contains the integrated discussion. This discussion outlines the findings emerging from the three empirical studies, and considers the broad implications in terms of release decision-making procedures, the assessment of risk in clinical practice and the use of institutional aggression and risk-related behaviour monitoring to inform these processes. Broad limitations and directions for future research in light of the present findings are discussed.

CHAPTER ONE: LITERATURE REVIEW

INSTITUTIONAL AGGRESSION AS A PREDICTOR OF VIOLENT

RECIDIVISM: IMPLICATIONS FOR PAROLE DECISION MAKING

Preamble to published paper

This paper presents a review of the literature that forms the foundation for the research aims of this thesis. First, developments in parole release decision making and violence risk assessment processes over recent decades are discussed. The incorporation of violence risk assessment measures in parole decision making is examined, and consideration is given to the implications of the ongoing use of discretionary release decision-making processes. A review of existing research examining the factors that influence parole decisions is conducted with a focus on institutional aggression.

Research examining the link between aggression during imprisonment and violence following release is reviewed and the challenges associated with the incorporation of institutional aggression in violence risk assessments in incarcerated offenders are outlined. The Offence Paralleling Behaviour (OPB; Daffern et al., 2007) framework is discussed as a potential supplement to risk-related decision making.

This paper was published in the International Journal of Forensic Mental Health in March 2011. This journal is the official publication of the International Association of Forensic Mental Health Services and has an audience of professionals from assorted disciplines within the forensic mental health field.

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Declaration for thesis chapter one

Declaration by candidate

In the case of Chapter one, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Literature review and preparation of paper	75%

The following co-authors contributed to the work:

Name	Nature of contribution	Extent of contribution (%)
A/Prof Michael Daffern	General supervisory input, review and editing of paper drafts.	25%

Candidate's signature: Date:

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
(4) there are no other authors of the publication according to these criteria;
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Institutional aggression as a predictor of violent recidivism: Implications for parole decision making

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Institutional Aggression as a Predictor of Violent Recidivism: Implications for Parole Decision Making

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Assessing risk for future violence in incarcerated offenders is a complex task, one which members of parole boards routinely undertake when they consider the suitability of an offender for release. Among the factors shown to influence parole board decision making is institutional aggression. However, several factors complicate the use of institutional aggression as a proxy for violent behavior following release. This includes environmental influences that may promote or suppress aggression during incarceration, and the process of adaptation to imprisonment that is characteristic of those who are imprisoned for extended periods. Furthermore, the extant research exploring the link between institutional aggression and post-release recidivism has produced varied results. This literature review examines the factors shown to impact on parole release decisions, how the decision-making process has evolved over time, and the use of violence risk assessment approaches to this task. The link between aggressive behavior in custody and aggression within the community is explored, along with the implications this holds for parole decision making and violence risk assessment in incarcerated offenders. The emergent Offence Paralleling Behaviour framework is introduced here as a method that may support the risk assessment process and guide the identification and monitoring of relevant violence risk-related behavior in custody.

Keywords: risk assessment, parole, offence paralleling behavior, violence

INTRODUCTION

An assessment of an offender's risk for violence forms the basis of multiple decisions made within the criminal justice system, including security classification and placement, referral to violence treatment programs and release decision making. The past few decades have witnessed much effort and vast improvement in understanding risk-related decision making and the development of structured instruments to increase the predictive validity of violence risk assessments. However, assessing risk for violence in incarcerated offenders, particularly those offenders who are in custody for lengthy periods, remains a complex and difficult task. This holds implications for parole decision making, given the assessment of an offender's risk for future violence is integral to the parole board's decision to release an offender into the community. Among the various factors considered by parole boards are post-sentencing variables such as institutional behavior (Bonham, Janeksela, & Bardo, 1986; Carroll, Wiener, Coates, Galegher, & Alibrio, 1982; Heinz, Heinz, Senderowitz, & Vance, 1976). This raises the important question of whether the presence of aggressive behavior within an institution is a valid risk marker that can be used to assess an individual's risk of violent criminal recidivism.

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Research suggests that institutional misconduct is generally predictive of post-release recidivism (Gottfredson & Adams, 1982; Heil, Harrison, English, & Ahlmeyer, 2009; Lattimore, Visher, & Linster, 1995). However, the incorporation of institutional aggression in the violence risk assessments of incarcerated offenders is complicated by two key factors. The first is the presence of situational demands that may either promote or suppress aggressive behavior. For instance, high inmate turnover rates, the composition of the inmate population in terms of age and risk (Gendreau, Goggin, & Law, 1997), and prison crowding (Porporino, 1986) have been cited as factors that may promote aggressive behavior. Conversely, the prison environment may lack the precipitants that previously led to aggression within the community, and thus have the effect of decreasing the occurrence of aggressive incidents (Jones, 2004; Daffern, Jones, Howells, Shine, Mikton, & Turnbridge, 2007). Consistent with contemporary models of aggression (Bushman & Anderson, 2001) research suggests a dynamic interaction between the individual and environmental determinants (Bottoms, 1999; Gendreau et al., 1997). The second important factor is the characteristic pattern of adaptation to prison documented in long-term incarcerated offenders (Zamble, 1992). These factors render violence risk assessment in the custodial environment a challenging task, and highlight the importance of providing parole boards with adequate guidance regarding the weight which should be attributed to the presence or absence of institutional aggression in their decision. An emergent framework describing behaviors referred to as Offence Paralleling Behaviour (OPB; Jones, 2004; Daffern et al., 2007) may aid in the interpretation of institutional behavior and act to supplement violence risk assessment and release decision making.

This literature review provides an overview of how the parole decision-making process has evolved alongside developments in violence risk assessment. The link between aggressive behavior in custody and aggression within the community will then be explored, along with the implications this holds for parole decision making and violence risk assessment in incarcerated offenders. The OPB framework will be introduced as a potentially useful adjunct to the release decision-making process that may help support deliberations around the relevance of institutional aggression in the risk assessment process.

The Parole Decision-Making Process and the Role of Violence Risk Assessment

The decision to release an offender on parole is an important verdict requiring the complex weighing of the safety of the community and the offender's right to liberty. Historically, this verdict relied upon a discretionary decision made by members of the parole board determining the timing and conditions under which an offender should be released into the community (Gottfredson & Gottfredson, 1988). A shift toward more punitive criminal justice policies in the 1970s

witnessed a growing criticism of the parole system and the rehabilitative ideal on which it was based (Heinz et al., 1976). Critics called for a reduction in their discretionary powers and more transparency with regard to the decision-making process and the variables on which parole decisions were based (Bonham, Janeksela, & Bardo, 1986; Heinz et al., 1976). Further criticisms concerned the lack of procedural safeguards and guidelines surrounding the parole process, resulting in an unstructured and inconsistent approach to parole board decision making (Heinz et al., 1976; Kastenmeier & Eglit, 1973). These criticisms sparked two key changes in parole processes. Firstly, the incorporation of risk assessment tools in parole decision making, and secondly, a move toward the implementation of mandatory release processes.

Violence Risk Assessment and Parole Decision Making

Arguments for a reduction in the discretionary powers held by parole boards and the implementation of a more structured approach to parole board release decision making were strengthened by the growing empirical evidence illustrating the inadequacy of unstructured clinical judgments of risk for violence (Monahan, 1981; Steadman & Cocozza, 1974). This resulted in a shift toward the use of actuarial scales based on risk factors empirically linked to violence. The ultimate goal of including actuarial scales was to enhance the prediction of parole performance and thereby reduce criminal recidivism (Bonham et al., 1986). These early scales were based predominantly on The Salient Factor Score that was first used by the United States Parole Commission as a means of predicting performance on parole (Hoffman & Beck, 1974). Following the implementation of this method by the federal government there has been a steady increase in the number of state paroling authorities utilizing actuarial methods (Harcourt, 2007). In 2004, 28 out of the 32 U.S. states with an active parole process (rather than a mandatory release mechanism) utilized actuarial risk assessment methods to guide parole decision making, compared to only two states in the mid 1970s (Harcourt, 2007).

Among other early scales developed to aid parole decision making were the Statistical Information on Recidivism scale (SIR; Nuffield, 1982) for use in Canada, and the Risk of Reconviction Score (ROR; Copas, Marshall, & Tarling, 1996) for use in the United Kingdom. Additional actuarial measures developed for use by correctional staff and mental health professionals more broadly, and which are sometimes used to assist parole board decision making, are the Violence Risk Appraisal Guide (VRAG; Quinsey, Harris, Rice, & Cormier, 1998) and the Static 99 (Hanson & Thorton, 1999). These actuarial measures have been shown to lead to more accurate assessments of risk than unaided clinical appraisals (Ægisdóttir et al., 2006; Quinsey, Harris, Rice, & Cormier, 2006). However, actuarial measures are subject to

a number of limitations (Andrews & Bonta, 2006; Cooke & Michie, 2009; Hart, Michie, & Cooke, 2007).

First, due to the predominant use of static risk factors, which remain relatively stable, these tools do not allow the measurement of change in risk over time (Andrews & Bonta, 2006). This fails to consider treatment progress and rehabilitation, as well as a worsening in antisocial attitudes or behavior. This is particularly relevant to the assessment of risk in incarcerated offenders as prisons are often considered to be negative environments where attitudes and behaviors supportive of crime are prominent. Second, actuarial predictions are not specific to the individual. Rather, they focus on predictions of relevant groups who may have some characteristics that are similar to the individual in question (Cooke & Michie, 2009; Hart, Michie, & Cooke, 2007).

A second dominant method of risk prediction referred to as structured clinical judgeent (SCJ) has subsequently emerged, which draws on features of both clinical and actuarial methods (Dolan & Doyle, 2000). In contrast to previous methods of clinical risk prediction, structured clinical judgments involve a structured approach to decision making which allows clinicians a degree of flexibility to consider factors that are relevant to the individual (Ogloff & Davis, 2005). Examples of risk assessment tools that subscribe to this method are the HCR-20 (Webster, Douglas, Eaves, & Hart, 1997) and the Violence Risk Scale – second edition (VRS-2; Wong & Gordon, 2000). In a recent meta-analysis, Yang, Wong, and Coid (2010) compared the predictive efficacy of nine violence risk assessment tools, which included both actuarial and structured clinical judgment tools. All nine instruments demonstrated moderate predictive efficacy, displaying no significant difference between the measures. Therefore, in terms of predicting violent recidivism, these measures appear equivalent. However, different decision-making tasks demand additional information to guide the treatment and management of the offender. Thus, a violence risk assessment tool such as the LSI-R, VRS, or HCR-20 may be employed on the basis of the supplementary information they provide (Yang, Wong & Coid, 2010). It is important to note that there are several limitations of contemporary risk assessment measures. Rogers (2000) highlights some of these limitations, and suggests caution when utilizing risk assessment measures in forensic practice. A key limitation discussed by Rogers (2000) is the failure of many risk assessment tools to consider protective factors that may influence the likelihood of an individual engaging in future criminal behavior.

Currently, a wide range of violence risk assessment measures are used to supplement parole decision making. In North American jurisdictions the most commonly used measures are the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995), the Static-99, and risk assessment instruments that have been developed 'in-house' (Caplan & Kinnevy, 2010; Harcourt, 2007). A survey of paroling authorities in the United States conducted by the Association of Paroling Authorities International (APAI) in 2007 revealed that of the 37 states that undertook the survey, 32 states employed a risk assessment instrument (Kinnevy & Caplan, 2008).

Harcourt (2007) has argued that the exponential trend in the use of risk assessment measures to supplement parole decision making coincided with the demise of the parole system. In the United States, 44 states using the parole system in 1979 decreased to 32 states in 2003 (Harcourt, 2007), heralding an era of determinate sentencing and *mandatory release* on parole.In many jurisdictions the parole system evolved from the use of discretionary decision making by members of the parole board into an automatic release mechanism. The 'new parole' referred to by Proctor (1999) 'is no longer a privilege granted to deserving offenders but rather an automatic release mechanism determined by time served and eligibility' (p. 194) effectively eliminating the discretionary powers of the parole board. Proctor (1999) cites two examples illustrating this development: England's Automatic Conditional Release (ACR) established under The Criminal Justice Act in 1991, and California's Mandatory Supervised Release program. The widespread implementation of Truth in Sentencing laws provides another example of the way in which sentencing reforms have limited the decision-making capacity of parole authorities, and in some U.S. states led to their abolition (Ditton & Wilson, 1999). Under these laws offenders are required to serve a substantial portion of their sentence in custody (often 85%), and their eligibility for release on parole is either restricted or removed completely (Ditton & Wilson, 1999).

Discretionary Parole Decision Making

Despite the increase of determinate sentencing structures and mandatory release, a discretionary decision-making process remains in various paroling authorities in the United States, Canada, and Australia. Furthermore, according to the APAI survey, 75% of the releasing authorities operating in states that employ a determinate sentencing structure maintain some discretionary capacity to grant release prior to the completion of an offender's sentence (Kinnevy & Caplan, 2008). Guidelines regarding the information that should be considered in the decision-making process are often provided for parole boards maintaining discretionary powers. However, these guidelines may include an extensive list of variables to be considered with no guidance as to the relative weights which should be attributed to each variable (National Parole Board, 2005). In these jurisdictions the results of a structured risk assessment tool may be among a myriad of factors informing the board's decision.

There are a variety of cognitive heuristics and biases that may be a potential source of inaccuracy in unstructured decision making (Carroll & Payne, 1976; Ross, 1977; Tversky & Kahneman, 1974). A particularly relevant decision-making error that is relevant to release decision making in the parole context is the *fundamental attribution error* (FAE; Ross,

1977). This refers to the tendency for individuals to overemphasize the role of 'stable dispositional' factors within the individual to explain behavior, rather than to consider the role of situational factors. In a pertinent study, Carroll (1978) explored the impact of causal attributions on judgments of risk by parole decision makers on the Pennsylvania Board of Probation and Parole, who at the time of the study employed a discretionary decision-making process. The findings indicated that members of the board were more likely to attribute the cause of the crime to stable individual characteristics rather than situational factors. Furthermore, as the stability attributed to the cause of the crime increased, so did the board member's predictions of an offender's risk of future crime. For instance, if board members attributed the cause of the crime to an individual's aggressive personality then they tended to perceive them as presenting a higher risk of future crime, more so than if the cause of the crime was attributed to a more transient variable such as unemployment. Carroll (1978) concluded that members of the board may have been subject to the fundamental attribution error resulting in the tendency to overemphasize stable internal factors, perhaps biasing their assessments of an offender's risk for future offending.

Gobeil and Serin (2009) argue that pressures commonly experienced by members of parole boards may create an environment conducive to the use of decisional heuristics, as parole decisions are typically conducted under considerable time pressure, and require the integration of a large volume of information from various sources (Gobeil & Serin, 2009). These pressures may lead decision makers to simplify their decision-making strategies and limit the file information they attend to, potentially resulting in inappropriate weight being attributed to a few variables as opposed to a systematic review of all the relevant information available (Gobeil & Serin, 2009). A review of the literature reveals a degree of variability with regard to the variables influencing parole decisions. In the next section of this review the factors that impact on parole board decision making will be explored.

Factors That Influence Parole Decision Making

Early criticisms regarding the lack of transparency in the parole decision-making process sparked several studies aimed at investigating which factors impacted on the parole decision (Bonham et al. 1986; Carroll et al., 1982; 1986; Heinz et al., 1976; Scott, 1974). Findings from this research illustrated that emphasis was often placed on criminal history variables, institutional misconduct, the parole plan (including accommodation and employment), treatment participation, recommendations from corrections staff, and an offender's risk of recidivism as measured by a formal risk assessment tool employed by the board (Bonham et al. 1986; Carroll et al., 1982; Conley & Zimmerman, 1982; Heinz et al., 1976; Scott, 1974). The weight attributed to these factors varied between states, however institutional misconduct often emerged as a key factor influencing the release decision.

In a study investigating the variables considered in the decisions made by the Pennsylvania Board of Probation and Parole, Carroll and colleagues (1982) found that an offender's conduct within the institution was the most important variable predicting the outcome of the parole decision, along with predictions of future risk and rehabilitation. When assessing the accuracy of the parole board's predictions of the offenders' performance on parole, Carroll and colleagues found virtually no relationship between the predictions made and parole performance. Institutional misconduct did not significantly predict criminal convictions while on parole whereas non-criminal institutional misconduct (for example, talking back to a prison officer) did significantly predict technical violations on parole. This evidence suggests that misconduct may provide a measure of an offender's capacity to conform to prison regulations, and thus may provide an indication of the likelihood an offender will commit technical violations on parole. However, in this study noncompliance in prison was not a significant predictor of criminal recidivism during the parole period (Carroll et al., 1982). Carroll and colleagues suggested that the inaccuracy of the predictions made by the board with regard to parole performance may be partially attributed to an overreliance on institutional misconduct as an indicator of future criminal behavior. It is also important to note that historically the parole system has served as a form of institutional control by rewarding compliant behavior with early release on parole and discouraging misconduct through the postponement of release (Proctor, 2000). Thus, while institutional aggression may be perceived by members of the board as an indicator of future violent behavior (Carroll et al., 1982; Scott, 1974), it is likely that the influence institutional behavior has on the parole decision is partially due to the use of parole as an institutional control mechanism (Conley & Zimmerman, 1982; Proctor, 2000).

Over the past decade there has been renewed research interest in prisoner re-entry into the community (Burke & Tonry, 2006). This is due predominantly to increasing prison populations in the United States and subsequently, an increased number of offenders being released on parole (Burke & Tonry, 2006; Petersilia, 2001). Huebner and Bynum (2006) examined the correlates of parole release in a sample of 511 male sexual offenders in a midwestern state in the United States. The findings indicated that institutional misconduct, the seriousness of the index offense, and parole readiness scores were considered important factors in the parole decision. In another study exploring the major predictors of parole decision making in a south-eastern state in the United States, Morgan and Smith (2005) found no significant relationship between the number of institutional infractions an offender had incurred and the parole decision. However, the time since last infraction was significantly related to the outcome of the parole decision, suggesting that institutional misconduct was considered to some degree in the board's

decision. More recently, the findings of the APAI national survey of releasing authorities revealed that institutional behavior was ranked as the sixth most influential factor in the release decision, behind crime severity, crime type, criminal history, number and age of the victim(s) (Kinnevy & Caplan, 2008).

From the research outlined above it is evident that a broad range of variables influence parole decision making. An offender's risk of future criminal behavior, the presence of institutional misconduct, and criminal history variables consistently emerge as strong predictors of the decision outcome (Scott, 1974; Heinz et al., 1976; Carroll et al., 1982; Bonham et al., 1986; Huebner & Bynum, 2006; Kinnevy & Caplan, 2008). Gobeil and Serin (2009) argue that restricting their focus to key variables shown to be linked to parole performance and recidivism may be evidence that parole boards employ adaptive decision-making strategies. This may be a means of simplifying their decision making due to the extensive amount of file information they are required to review and the time pressure placed on their decisions (Gobeil & Serin, 2009). While factors such as an offender's criminal history have been shown to be robust predictors of future criminal behavior (Andrews & Bonta, 2006), it is uncertain whether the presence or absence of aggressive behavior in custody provides a valid representation of how one is likely to behave in the community, specifically whether the offender will violently reoffend. In order to establish whether institutional aggression is a valid indicator of risk and thus, should be attributed weight in the parole decision, it is necessary to explore the association between aggression in custody and violent recidivism following release.

The Association Between Institutional Aggression and Post-Release Recidivism

In the context of the aforementioned debate regarding whether to abolish or maintain the parole system, Gottfredson and Adams (1982) explored the association between prison misconduct and release performance in a sample of federal releases in the United States over a two-year follow-up period. The association between institutional misconduct and post-release recidivism was of particular importance to this debate, as the perceived utility of the parole system depended to a degree on the ability of post-sentencing factors to predict future criminal behavior. The results showed that after controlling for *a priori* risk, for which the Salient Factor Score was used, institutional infractions were shown to be significantly related to post-release infractions. Gottfredson and Adams (1982) argued that this supported the notion that post-sentencing data available to parole boards is useful in the prediction of criminal behavior post release. Similarly, in a sample of 1,949 serious youthful offenders paroled by the California Youth Authority, Lattimore, Visher & Linster (1995) found that those who were aggressive while incarcerated were significantly more likely to be arrested for a violent

offense post release. Furthermore, a recent study conducted by Heil and colleagues (2009) examined whether sexual misconduct during incarceration was related to violent recidivism. Results indicated that offenders who engaged in sexual misconduct were significantly more likely to be arrested for violent offenses following release. These results, along with the findings of additional research (Hill, 1985; Brown, Amand, & Zamble, 2009) are consistent with arguments that aggressive misconduct can be viewed as a reasonable proxy for an individual's propensity for aggressive behavior in the community (Gendreau, Goggin, & Law, 1997). Moreover, in a meta-analysis of 68 studies examining the efficacy of correctional treatment in reducing prison misconducts, French and Gendreau (2006) found that programs which were most effective in reducing levels of misconduct in prison also resulted in reduced rates of recidivism. This reinforces the aforementioned argument that institutional misconduct may indicate a propensity for antisocial behavior post release.

While these findings display a significant association between institutional behavior and post-release recidivism, contrasting research findings suggest there is only a weak or no relationship (O'Leary & Glaser, 1972; Trulson, DeLisi & Marquart, 2009). In a summary of early research examining whether institutional misconduct was predictive of an offender's success or failure on parole, O'Leary and Glaser (1972) reported a small relationship. More recently, Trulson and colleagues (2009) examined the relationship between institutional misconduct and rearrest following release in a sample of 1,804 violent male juvenile offenders. The authors employed six measures of misconduct, including staff assaults, youth assaults, danger to others, possession of a weapon, gang related activity, and total misconducts. The findings indicated that with the exception of total misconducts, none of the remaining measures of misconduct were significantly predictive of rearrest following release. Furthermore, despite a significant relationship, total misconducts accounted for little variance in rearrest rates. Trulson and colleagues concluded that these results provided little support for institutional misconduct as a predictor of recidivism following release.

An important limitation of the aforementioned research is the use of official records of aggressive misconduct and violent recidivism. The use of official records as an outcome measure is problematic due to the potential for acts of violence within the community to be underestimated, which was illustrated in the MacArthur Study of Mental Disorder and Violence (Monahan, Steadman, Silver, Appelbaum, Clark Robbins, Mulvey, Roth, Grisso, & Banks, 2001). Furthermore, research has also suggested that official disciplinary records may underestimate the occurrence of aggression in a custodial environment (Bottoms, 1999; Cooley, 1993). Despite these limitations, official records of misconduct are routinely utilized in the parole decision and criminal convictions are of particular interest to paroling authorities, rendering this research of relevance to the current review. An

additional shortcoming of the previously cited research is the failure of researchers to control for factors such as an offender's age, which has been shown to be a significant predictor of both institutional misconduct (Cunningham & Sorenson, 2007) and recidivism (Dembo, Schmeidler, Nini-Gough, Sue, Borden & Manning, 1998; Gendreau, Little, & Goggin, 1996), and an offender's risk of criminal recidivism as measured by a formal risk assessment instrument. Furthermore, additional factors such as the frequency, severity, and recency of institutional behavior may be usefully considered in future research.

In summary, a greater number of studies have found that institutional misconduct is predictive of future criminal behavior. This area is underresearched, partially due to the predominant focus on presentencing variables, including static risk factors and criminal history variables, in studies of the prediction of violence (Trulson et al., 2009). Furthermore, due to some contrasting findings (O'Leary & Glaser, 1972; Trulson et al., 2009) and the previously discussed limitations in this research to date, there is a need for further research to clarify the nature of this relationship in order to provide guidance to members of paroling authorities, allowing them to make more informed decisions about the degree to which institutional aggression is considered an indicator of risk for future violence. This is of particular importance due to the aforementioned research suggesting that institutional misconduct is one of several key factors shown to influence parole decisions (Carroll et al., 1982, Huebner & Bynum, 2006).

Although past behavior has long been regarded as a most important predictor of future behavior (Owens & Schoenfeldt, 1979), the unique nature of the prison environment and the power of situational determinants of aggressive behavior warrant consideration when examining institutional aggression. Moreover, trends typically seen in long-term offenders such as adaptation to the prison environment may further complicate this process (Zamble, 1992) and require scrutiny.

The Impact of Environmental Factors and Adaptation to Prison on Institutional Aggression

There is accumulating evidence that indicates caution when using institutional aggression as a predictor of violent behavior post release. These findings highlight (1) the possibility that the prison environment may either suppress or promote aggression, and (2) the process in which prisoners normally adapt to prison over time and typically desist from aggressive behavior during institutionalization.

1. Prison is a unique and structured environment, and for many offenders it may suppress or alter their behavior (Jones, 2004). The triggers or precipitating events that previously led to aggressive behavior in the community may be absent from the prison environment (e.g., conflict

with intimates), consequently leading to a reduction in aggression during incarceration (Jones, 2004; Daffern et al., 2007). Further, offenders may no longer have access to the prototypical targets of their aggressive behavior in the prison environment, potentially reducing the frequency of aggressive conduct. The custodial environment may also lead an offender to develop new skills to avoid the detection of their misbehavior by prison staff (see discussion of Detection Evasion Skills, DES, by Jones, 2004). Thus, a reduction in aggressive behavior may be the result of a reduction in the triggers or opportunities for such behavior, or it may be that these behaviors continue but are unobserved. Therefore, the absence of official records of aggression within an institution should not necessarily be interpreted as an indication of pro-social change and a reduction in the likelihood of violence following release. This also suggests that official records of misconduct may underestimate rates of institutional aggression.

Certain aspects of the environment may also be conducive to violence (e.g., widespread beliefs among prisoners that violence is acceptable). Polaschek, Calvert, and Gannon (2009) examined offense-supportive cognitions in violent offenders using an implicit theory approach and found that implicit theories held by these offenders were frequently related to the normalization of violence. An advocate of the situationist approach, Phillip Zimbardo (1973), illustrated the detrimental impact of the environment on the behavior and psychological well-being of individuals in custody in his classic study, the Stanford Prison Experiment. The presence of aggression in custody may therefore be considered, in part, a consequence of environmental demands rather than the operation of persistent problematic individual functioning that suggests the individual presents with a persistently high risk of violence post release. Environmental factors that have been raised as potential sources of institutional misconduct include the rigid rules and regulations imposed on inmates, high inmate turnover rates, the composition of the inmate population in terms of age and risk (Gendreau et al., 1997), and prison crowding (Porporino, 1986).

The results of a meta-analysis of 39 studies conducted by Gendreau and colleagues (1997) indicated that institutional variables significantly predicted prison misconducts, along with personal characteristics and actuarial measures of antisocial personality and risk. These findings suggested that institutional behavior is a product of the interaction between both individual and environmental determinants (Gendreau et al., 1997). These findings correspond with contemporary models of aggressive behavior such as the General Aggression Model (GAM; Bushman & Anderson, 2001), which suggests violence is the culmination of an interaction between an individual's acquired aggression-related knowledge structures (e.g., schemas and scripts) and situational variables which guide behavior in interpersonal situations. Consequently,

it is important to understand and consider both individual and situational factors in any analysis of aggressive behavior.

2. Secondly, reductions in antisocial behavior during imprisonment may not necessarily be associated with rehabilitation and a reduced risk of recidivism. Several studies examining adaptation to prison in inmates sentenced to long-term imprisonment (Zamble & Porporino, 1990; Zamble, 1992) have found that prisoners typically adapt to prison and show reduced distress and misconduct as they progress through their prison sentence (Zamble, 1992).

Zamble (1992) conducted a longitudinal study across a period of seven years investigating prison adaptation in a sample of 41 long-term incarcerated offenders. A structured interview measuring changes in cognitions, emotional experience, and behavior was used along with several questionnaires to measure emotional state. Disciplinary reports were obtained from institutional case files. The findings indicated that over the course of the prison sentence inmates tended to adapt to the prison environment. Dysphoric emotional states reduced over time, illustrated in significant decreases in depression and anxiety scores. Inmates also showed a decrease in the amount of time spent socializing with fellow inmates, and an increased focus on work-related activities or hobbies. The authors noted that the decrease in socializing was likely due to the inmates' increased awareness of the consequences of misconduct, and their attempts to reduce conflict with other inmates by limiting social interaction. Disciplinary infractions were also found to decrease significantly, which was interpreted as an indication of increased adaptation to the rules of the prison.

Overall these findings illustrate a pattern of increased adaptation to the prison environment, characterized by increased compliance and reduced emotional distress. Zamble (1992) highlighted three key factors that were likely to contribute to the process of adaptation. Firstly, maturational changes would be expected over the duration of a long-term sentence, and young offenders are likely to develop their capacity to monitor and control their behavior over the course of a long sentence. Secondly, the consistent negative consequences of misconduct are likely to motivate long-term offenders to reduce rates of misconduct in order to improve their quality of life during incarceration. Finally, the prospect of release was identified as a powerful motivation for inmates to adapt and modify their behavior, due to the weight attributed to prison misconduct in parole decision making.

Research comparing the rates of disciplinary infractions incurred by offender's incarcerated for short-term and long-term sentences suggest that infraction rates for long-term offenders are consistently lower than those for short-term offenders (Cunningham & Sorenson, 2007; Flanagan, 1980; Flanagan 1981). However, in contrast to the findings of Zamble (1992) the results of research conducted by Flanagan (1980) revealed that the lower rates of misconduct exhibited in long-term incarcerated offenders were evident from the beginning of their sentence, and remained fairly consistent throughout their period of incarceration. Interestingly, research also suggests that offenders incarcerated for a violent offense are less likely to incur records of violent misconduct than those incarcerated for a nonviolent offense (Cunningham & Sorenson, 2007). Together, this evidence lends some support to the view that offenders incarcerated for short-term periods may engage in antisocial behavior more frequently in both the community and in custody, than long-term offenders whose index offense may have been a serious 'one-time' offense (men who kill their intimates are a useful exemplar of this phenomenon). This may provide an alternative explanation for the inverse relationship found between sentence length and rates of misconduct. While the aforementioned researchers did control for age in their analyses, a limitation of these studies lies in the failure to control for an offender's risk of recidivism as measured by a formal risk assessment measure. This may have provided a clearer picture of the additional contribution of sentence length to rates of misconduct.

It can be seen then that adaptation to prison in long-term prison inmates and environmental determinants of prison behavior complicate the risk assessment process and present a challenge to release decision makers. In light of these complications it becomes difficult to determine whether a reduction or absence of overt aggression is actually indicative of prosocial change, or merely a product of the adaptation process or environmental pressures which may suppress or alter the form of aggressive behavior. Further, the presence of aggression may merely be a product of stressors unique to the prison environment, rather than a stable characteristic within the individual. This illustrates the complexity of the processes underlying institutional behavior and the challenge faced by clinicians and release decision makers who are assigned the task of considering such behavior in their routine risk assessments. This raises questions around which aspects of prison behavior are important when assessing risk of future violence, and highlights the need for a risk assessment procedure that facilitates the accurate identification of risk-related behaviors in custody.

Utilizing Prison Behavior in the Risk Assessment of Incarcerated Offenders

In response to the problem of static scores generated by actuarial risk assessments, Clark, Fisher, and McDougall (1993) developed a methodology using an objective assessment of risk-related behaviors within the custodial environment, to aid the risk assessment of long-term incarcerated offenders. Clark et al.'s (1993) methodology was based on the identification of the behavioral pattern surrounding the offender's

initial offense, and the subsequent monitoring of this pattern during the period of incarceration. Clark and colleagues (1993) argued that if this behavioral pattern decreased in frequency or if new, more pro-social behaviors were observed in similar situations, that rehabilitative changes may have occurred. In contrast, if the behavioral pattern was observed at a similar or increasing rate, then it may be concluded that rehabilitative changes have not occurred. It is acknowledged that this is a simplistic view of a complex issue. However, this methodology provides a foundation for the assessment of risk in incarcerated offenders using institutional behavior.

Clark and colleagues' (1993) experimental sample consisted of 65 randomly selected inmates from HMP Wakefield, comprising 10% of the prison population. A set of predicted behaviors (PBs) were compiled for each inmate on the basis of risk assessments and behavioral analysis of the index offense. The PBs were then examined against a set of actual behaviors (ABs) exhibited by each inmate in prison compiled on the basis of prison records available and behavior checklists completed by prison staff. The use of three independent prison psychologists to carry out the behavioral analysis, and three independent raters to complete the behavioral comparisons maintained objectivity, and the reported interrater reliability was high. The results of this analysis showed that 60% of the ABs were predicted by the PBs. Thus, the PBs produced by the offense-related behavioral analysis predicted 60% of the ABs recorded in the prison setting.

These results provide evidence to support the notion that an individualiszd behavioral analysis of an offense can assist the prediction of an individual's offense-related behavior in custody and also, that some consistency in patterns of aggressive behavior exists between community and prison. This systematic and focused behavioral observation provides a way to monitor and interpret institutional behavior that may be indicative of repeated criminal behavior in the community post release. Moreover, it provides a basis for the assessment of long-term incarcerated offenders who pose an increased difficulty in risk assessment. Clark and colleagues (1993) recommend conducting these behavioral assessments periodically throughout the sentence in order to gauge changes in the level of risk. A decline in the frequency of PBs may provide an indication of the efficacy of a treatment intervention, or the suppression or extinction of the behavior. These results also provide evidence to support the notion of functional similarity in behavior across environments and are consistent with the cross-situational consistency in aggressive behavior observed by Olweus (1979). It should be noted that cross-situational consistency in behavior has often been criticized (Mischel, 1973). However, Mischel (2004) has more recently argued that behavioral consistency is possible, when there is continuity in important "psychologically active" (p. 195) environmental contingencies (i.e., those that activate characteristic social cognitive person variables). Daffern (2010b) has recently noted that accordingly, for aggression observed in

an institution to be relevant to a violent offender's aggressive behavior in the community, that equivalent psychological features (e.g., schemas of abuse and mistrust) would need to be activated in prisons. Where this occurs then cross-situational consistency in aggressive behavior can be expected.

As mentioned previously, interpreting institutional aggression as an indicator of an offender's risk for violence in the community is complicated by environmental influences that may promote or suppress aggression, and the process of adaptation characteristic of offenders imprisoned for a long-term period. Clark et al. (1993) put forward a method for identifying an inmate's offense-related behavioral patterns and a means for monitoring these behavioral patterns in custody. Based on the notion of behavioral consistency, it may be argued that it is these idiographic offense-related behaviors, which may not necessarily culminate in overt violence in the prison, that are indicative of risk of recidivism, rather than aggressive misconduct per se. Consequently, it is possible that release decision makers may be missing important aspects of institutional behavior by merely attending to aggressive disciplinary incidents, the details and context of which may be absent or described in a simplistic manner in official records. Thus, an individualized case formulation approach incorporating a behavioral analysis of the index offense may facilitate the risk assessment of incarcerated offenders through the identification of these risk-related behaviors that may manifest in custody (Jones, 2004; Daffern et al., 2007). Monitoring the frequency and severity of these behaviors may facilitate a more accurate assessment of an offender's likelihood of violently reoffending. Furthermore, these risk-related behaviors may be more usefully considered by clinicians making recommendations for an offender's release.

Offence Paralleling Behaviour

An emerging behavior analytic approach which may supplement the structured and actuarial risk assessment of incarcerated offenders for parole board decision making is the Offence Paralleling Behaviour framework (OPB; Jones, 2004; Daffern et al., 2007; Daffern et al., 2010). The OPB framework is based on the model developed by Clark, Fisher, and McDougall (1993) outlined above. It involves the behavioural analysis of offending behaviour and the subsequent identification of similar behaviours within the prison environment. Jones (2004), who coined the term OPB, departed from the model developed by Clark and colleagues (1993) by emphasizing a behavioral chain, whereby the similarities to the offense lie in 'the pattern of behaviours, thoughts and emotions leading up to the offence' rather than overt similarity in the actual behavioral end-point (2004, p. 39). Jones defined OPB as 'any form of offence-related behavioural (or fantasized behaviour) pattern that emerges at any point before or after an offence. It does not have to result in an offence; it simply needs to resemble, in some significant respect, the

sequence of behaviours leading up to the offence' (p. 38). Due to the over-inclusive nature of this definition and the potential for the misapplication of the framework, Daffern and colleagues (2007) redefined OPB as 'a behavioural sequence incorporating overt behaviours (that may be muted by environmental factors), appraisals, expectations, beliefs, affects, goals and behavioural scripts. . . that is functionally similar to behavioural sequences involved in previous criminal acts' (p. 267). A core aspect of this framework is the unique and idiosyncratic nature of these behaviors to the individual.

The OPB framework has been suggested as a means of assessing risk, identifying opportunities for intervention and monitoring treatment change in a custodial environment (Jones, 2004). The framework is based on two underlying assumptions which have been outlined by Daffern (2010b). First, that consistency exists between an individual's aggressive behavior within the community and that occurring within an institution involving the activation of equivalent aggressive knowledge structures (see GAM, Bushman & Anderson, 2001), that play a causal role in the aggressive behavior. Second, that OPB can be reliably identified.

Based on the assumption of behavioral consistency (in the presence of similar environmental events which activate social cognitive variables; Mischel, 2004), the offense-related behavior exhibited by an individual prior to incarceration should manifest both within the prison environment and following release (Daffern, 2010b). Thus, in line with the model proposed by Clark and colleagues, the identification and monitoring of these offense-related behaviors in custody should provide at least a partial indication of an individual's risk of reoffending in the community. Theoretically, it then follows that if these behaviors are targeted in custody by a violence treatment program and as a result they reduce in frequency and severity then an individual's risk of recidivism should also reduce. An indication of improvement may also be seen in the adoption of more adaptive and pro-social alternative behaviors (PAB; Daffern et al., 2007) in situations that may have given rise to offending behavior in the past. While OPB is functionally similar to the individual's offending behavior and is problematic in nature, PAB may serve the same function as the offending behavior, however is pro-social in nature (e.g., assertive action where violence may have been anticipated) (Daffern et al., 2007). Thus, an increase in PAB and a decrease in OPB may be viewed as an indication of behavioral improvement and pro-social change. In addition to the monitoring of OPB and PAB, knowledge of an individual's detection evasion skills (DES); that is, the skills that an individual has acquired in order to avoid the detection of their problematic behavior, is important in order to accurately determine an individual's risk of reoffending (Jones, 2004).

Despite the sound theoretical basis on which the OPB construct is based, Daffern (2010b) argues that caution should be taken when applying this framework in a custodial or clinical setting. This is due largely to the potential for the misapplication of the framework and the lack of empirical research to date to support the efficacy of this model in risk assessment. Yet, OPB has been receiving increased attention from the research community in recent years, and has been employed in various correctional settings (see Daffern, Jones & Shine, 2010, for details), including therapeutic communities (see Shine, 2010) and offender supervision within the community (McDougall, Pearson, Bowles, & Cornick, 2010). An example is the ADViSOR project in England, which involves the communication of information regarding an offender's offense-related behavior in custody, to community staff involved in managing the offender once they are released into the community via a national database (McDougall et al., 2010). This information is provided under the Multi-Agency Public Protection Arrangements (MAPPA), which guides the supervision of serious violent and sex offenders. McDougall and colleagues argue that there is a need for improved communication between prisons and community services involved in offender reintegration. Of particular importance is information relating to the presence of offense-related behavioral patterns in custody, as such information may indicate whether an offender has demonstrated the capacity to modify his behavior in prison and the likelihood of engaging in similar behavior following release (McDougall et al., 2010). This has clear implications for the management of serious offenders within the community and preserving the safety of the public.

It has been illustrated above that several issues complicate the use of institutional aggression as a predictor of future violence in the community. The OPB framework provides a means of identifying and monitoring behavioral patterns that are indicative of an individual's propensity to reoffend in the future, while allowing for the identification of pro-social alternative behaviors that an offender may have developed and may indicate a reduced risk of reoffending. Parole boards may consider this framework when they are scrutinizing the relevance of aggressive misconducts documented in official records. The OPB framework also has the potential to aid the identification of individualized treatment targets in a custodial environment and to be used as a method of monitoring change according to participation in treatment. This individualized approach counters some of the criticisms of actuarial methods, namely that such approaches predict the risk of a group not an individual (Cooke & Michie, 2009), are generally atheoretical, and fail to reflect the dynamic nature of risk (Andrews & Bonta, 2006). The monitoring of OPB may provide prison staff with a more systematic and objective method for observing institutional behavior, with a focus on risk-related behaviors specific to the individual as opposed to simply recording aggressive misconduct more broadly. However, there is a significant need for further research into the efficacy of OPB as a supplement to risk assessment, violence treatment programs, and supervision in the community.

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FUTURE DIRECTIONS

Future directions for research may be divided into three main areas: (1) parole decision making, (2) the relationship between institutional behavior and post-release recidivism, and (3) the application of the OPB framework in correctional settings.

1. There is a lack of research, particularly in recent years examining the factors considered by members of parole boards in their decision, and the processes through which decisions are made, particularly in jurisdictions that maintain an unstructured discretionary decision-making process. Given the importance of the parole release decision, additional research is needed to clarify the factors influencing parole decisions, and the decision-making processes that are being followed. Research is also needed to compare structured and unstructured parole decision-making processes; perhaps comparing the parole performance of offenders released via each method. Furthermore, in light of the demonstrated influence that institutional misconduct may have on parole decisions (Carroll et al., 1982; Conley & Zimmerman, 1982), further investigation is required aimed at exploring how members of parole boards view institutional aggression, and how much weight is attributed to this variable in their decision.

2. Further research is needed to clarify the relationship between institutional aggression and aggressive behavior following release into the community. Research to date has provided mixed results, leaving parole boards with little guidance as to how institutional aggression and misconduct more broadly should be considered in their decision. Elucidation of this relationship will allow parole boards to make more informed decisions regarding the degree to which aggression should be considered an indicator of risk for future violence.

3. Further investigation is needed to establish a reliable and valid means of assessing and monitoring OPB. At present, an unaided functional analysis is recommended and this requires considerable time and expertise and is also fraught with problems of reliability and validity (like all unaided clinical formulations). For the OPB framework to be implemented to aid in risk assessment, a reliable and systematic means of monitoring behavior over an offender's period of incarceration will need to be developed. This may have implications for how prison behavior is monitored by staff and communicated to paroling authorities and external agencies in charge of supervising offenders once they are released. Research attention will then need to focus on examining the relationship between the presence of OPB within the prison environment and future offending within the community.

CONCLUSION

The parole release decision is an important stage within criminal justice systems, in which the timing and nature of the offender's reintegration into society is determined. Alongside the developments in violence risk assessment tools, the parole system has adopted a more structured approach to decision making, with many jurisdictions incorporating automatic release mechanisms or structured decision guidelines. However, several jurisdictions in the United States, Canada, and Australia maintain a discretionary parole decision-making process. In these instances, the result of a risk assessment measure is merely one of a myriad of factors informing the board's decision. Among the factors considered by the board to provide an indication of risk of future violence is institutional aggression. However, it has been demonstrated that institutional behavior is complex, and may not necessarily provide an accurate representation of how an offender is likely to behave once released into the community. Contributing to this complexity are environmental influences that may promote or suppress aggression during incarceration, and the process of adaptation that is characteristic of offenders imprisoned for a long-term period. This suggests it may be useful for members of parole boards to think more broadly about factors that impact on aggressive behavior within institutions when considering an offender's suitability for release. Moreover, release decision makers may be missing important aspects of institutional behavior by merely attending to aggressive disciplinary incidents. An absence of aggressive behavior does not necessarily indicate progress and aggression may be a consequence of environmental demands rather than persistent risk-related pathology. An individualized approach informed by the OPB framework may facilitate the risk assessment and treatment of incarcerated offenders through the identification of idiographic offense-related behaviors that may manifest in custody. Monitoring these behavioral patterns within custody may provide a more accurate representation of an individual's risk of future offending and may help focus treatment and monitor progress in custody.

REFERENCES

Ægisdóttir, S., White, M. J., Spengler, P. M., Maugherman, A. A., Anderson, L. A., Cook, R. S., et al. (2006). The meta-analysis of clinical judgment project: Fifty-six years of accumulated research on clinical versus statistical prediction. *The Counseling Psychologist, 34*, 341–382.

Andrews, D. A., & Bonta, J. (1995). *LSI-R: The Level of Service Inventory – Revised*. Toronto, Ontario, Canada: Multi-Health Systems.

Andrews, D. A., & Bonta, J. (2006). *The psychology of criminal conduct* (4th ed.). Cincinatti, OH: Anderson Publishing.

Bonham, G., Janeksela, G., & Bardo, J. (1986). Predicting parole decision in Kansas via discriminant analysis. *Journal of Criminal Justice, 14*, 123–133.

Bottoms, A. E. (1999). Interpersonal violence and social order in prisons. *Crime and Justice, 26*, 205–281.

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Brown, S. L., St. Amand, M. D., & Zamble, E. (2009). The dynamic prediction of criminal recidivism: A three-wave prospective study. *Law and Human Behaviour, 33*, 25–45.

Burke, P., & Tonry, M. (2006). *Successful transition and re-entry for safer communities: A call to action for parole*. Silver Spring, MD: Center for Effective Public Policy.

Bushman, B. J., & Anderson, C. A. (2001). Is it time to pull the plug on the hostile versus instrumental aggression dichotomy? *Psychological Review, 108*, 273–279.

Caplan, J. M. (2007). What factors affect parole: A review of empirical research. *Federal Probation, 71*, 16–19.

Caplan, J. M., & Kinnevy, S. C. (2010). National surveys of state paroling authorities: Models of service delivery. *Federal Probation, 74*, 34–42.

Carroll, J. S. (1978). Causal attributions in expert parole decisions. *Journal of Personality and Social Psychology, 36*, 1501–1511.

Carroll, J. S., & Burke, P. A. (1990). Evaluation and prediction in expert parole decisions. *Criminal Justice and Behaviour, 12*, 315–332.

Carroll, J. S., & Payne, J. W. (1976). The psychology of the parole decision process. In J. S. Carroll & W. Payne (Eds.), *Cognition and social behaviour* (pp.13–32). Hillsdale, NJ: Lawrence Erlbaum.

Carroll, J. S., Weiner, R. L., Coates, D., Galegher, J., & Alibrio, J. J. (1982). Evaluation, diagnosis, and prediction in parole decision making. *Law & Society Review, 17*, 199–228.

Clark, D. A., Fisher, M. J., & McDougall, C. (1993). A new methodology for assessing the level of risk in incarcerated offenders. *British Journal of Criminology, 33*, 436–448.

Conley, J. A., & Zimmerman, S. E. (1982). Decision making by a part-time parole board: An observational and empirical study. *Criminal Justice and Behaviour, 94*, 396–431.

Cooke, D. J., & Michie, C. (2009). Limitations of diagnostic precision and predictive utility in the individual case: A challenge for forensic practice. *Law and Human Behaviour*. Available at http://www.springerlink.com/content/1463680m41/67252/.

Cooley, D. (1993). Criminal victimization in male federal prisons. *Canadian Journal of Criminology, 35*, 479–95.

Copas, J. B., & Heydari, F. (1997). Estimating the risk of reoffending by using exponential mixture models. *Journal of the Royal Statistical Society, 160*, 237–252.

Copas, J. B., Marshall, P. , & Tarling, R. (1996). *Predicting reoffending for discretionary conditional release*. London: Her Majesty's Stationery Office.

Cunningham, M. D., & Sorensen, J. R. (2007). Predictive factors for violent misconduct in close custody. *The Prison Journal, 87*, 241–253.

Daffern, M. (2010a). Risk assessment for aggressive behaviour in personality disorder. In A. Tenant and K. Howells (Eds.), *Using time, not doing time: practitioner perspectives on personality disorder and risk* (pp. 15–32). Chichester, UK: Wiley-Blackwell.

Daffern, M. (2010b). A structured cognitive behavioural approach to the assessment and treatment of violent offenders using Offence Paralleling Behaviour. In M. Daffern, L. Jones, & J. Shine (Eds.), *Offence Paralleling Behaviour: A case formulation approach to offender assessment and intervention* (pp.105–120). Chichester, UK: Wiley-Blackwell.

Daffern, M., Jones, L., & Shine, J. (2010). *Offence Paralleling Behaviour: A case formulation approach to offender assessment and intervention*. Chichester, UK: Wiley-Blackwell.

Daffern, M., Jones, L., Howells, K., Shine, J., Mikton, C., & Turnbridge, V. (2007). Editorial: Refining the definition of offence paralleling behaviour. *Criminal Behaviour and Mental Health, 17*, 265–273.

Dembo, R., Schmeidler, J., Nini-Gough, B., Sue, C. C., Borden, P., & Manning, D. (1998). Predictors of recidivism to a juvenile assessment center: A three year study. *Journal of Child and Adolescent Substance Abuse, 7*, 57–77.

Ditton, P. M., & Wilson, D. J. (1999). *Truth in sentencing in state prisons*. Bureau of Justice Statistics: Special Report, NJC 170032.

Dolan, M., & Doyle, M. (2000). Violence risk prediction: Clinical and actuarial measures and the role of the Psychopathy Checklist. *British Journal of Psychiatry, 177*, 303–311.

Dolan, M. D., & Fullam, R. (2007). The validity of the Violence Risk Scale second edition (VRS-2) in a British forensic inpatient sample. *The Journal of Forensic Psychiatry and Psychology, 18*, 381–393.

Douglas, K.S ., Cox, D. N., & Webster, C. D. (1999). Violence risk assessment: Science and practice. *Legal and Criminological Psychology, 4*, 149–184.

Flanagan, T. J. (1980). Time served and institutional misconduct: patterns of involvement in disciplinary infractions among long-term and short-term inmates. *Journal of Criminal Justice, 8*, 357–367.

Flanagan, T. J. (1981). Dealing with long-term confinement: Adaptive strategies and perspectives among long-term prisoners. *Criminal Justice and Behaviour, 8*, 201–222.

Gendreau, P., Goggin, C. E., & Law, M. A. (1997). Predicting prison misconducts. *Criminal Justice and Behaviour, 24*, 414–431.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34*, 575–595.

Gobeil, R., & Serin, R. C. (2009). Preliminary evidence of adaptive decision making techniques used by parole board members. *International Journal of Forensic Mental Health, 8*, 97–104.

Gordon, A., & Wong, S.C.P. (2010). Offence analogue behaviours as indicators of criminogenic need and treatment progress in custodial settings. In M. Daffern, L. Jones, & J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp. 171–184). Chichester, UK: Wiley-Blackwell.

Gottfredson, M. R., & Adams, K. (1982). Prison behaviour and release performance. *Law & Policy Quarterly, 4*, 373–391.

Gottfredson, M. R., & Gottfredson, D. M. (1988) *Decision making in criminal justice: Toward the rational exercise of discretion*, (2nd ed,). New York: Plenum Press.

Grove, W. M., Zald, D. H., Lebow, B. S., Snitz, B. E., & Nelson, C. (2000). Clinical versus mechanical prediction: A meta-analysis. *Psychological Assessment, 12*, 19–30.

Hanson, R. K. & Thorton, D. (1999). *Static 99: Improving actuarial risk assessment for sex offenders*. Ottawa, Ontario, Canada: Department of the Solicitor General of Canada.

Harcourt, B. E. (2007). *Against prediction: Profiling, policing, and punishing in an actuarial age*. Chicago: University of Chicago Press.

Hart, S. D., Michie, C. & Cooke, D. J. (2007). Precision of actuarial risk assessment instruments: Evaluating the 'margins of error' of group v. Individual predictions of violence. *The British Journal of Psychiatry, 190*, s60–s65.

Heil, P., Harrison, L., English, K., & Ahlmeyer, S. (2009). Is prison sexual offending indicative of community risk? *Criminal Justice and Behaviour, 36*, 892–908.

Heinz, A. M., Heinz, J. P., Senderowitz, S. J., & Vance, M. A. (1976). Sentencing by parole board: An evaluation, *The Journal of Criminal Law and Criminology, 67*, 1–31.

Hill, G. (1985). Predicting recidivism using institutional measures. In D. P. Farrington & R. Tarling (Eds.), *Prediction in criminology* (pp. 96–118). Albany: State University of New York Press.

Hoffman, P. B., & Beck, J. L. (1974), Parole decision-making: A salient factor score. *Journal of Criminal Justice, 2*, 196–206.

Huebner, B. M., & Bynum, T. S. (2006). An analysis of parole decision making using a sample of sex offender: A focal concerns perspective. *Criminology, 44*, 961–991.

Jones, L. (2004). Offence Paralleling Behaviour (OPB) as a framework for assessment and interventions with offenders. In A. Needs & G. Towl (Eds.), *Applying psychology to forensic practice* (pp. 34–63). Oxford: British Psychological Society and Blackwell Publishing.

Jones, L., Daffern, M., & Shine, J. (2010). Summary and directions for future research into Offence Paralleling Behaviour. In M. Daffern, L. Jones, &

J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp. 317–328). Chichester, UK: Wiley-Blackwell.

Kastenmeier, R. W., & Eglit, H. C. (1973). Parole release decision-making: rehabilitation, expertise, and demise of mythology. *The American University Law Review, 22*, 477–525.

Kinnevy, S. C., & Caplan, J. M. (2008). *Findings from the APAI International Survey of Releasing Authorities* [Research Report]. Philidelphia, PA: Center for Research on Youth & Social Policy.

Lattimore, P. K., Visher, C. A., & Linster, R. L. (1995). Predicting rearrest for violence among serious youthful offenders. *Journal of Research in Crime and Delinquency, 32*, 54–83.

McDougall, C., Pearson, D., Bowles R., & Cornick, J. (2010). Institutional offence behaviour monitoring as an aid to community supervision of high-risk offencers: Experience from multi-agency public protection arrangements. In M. Daffern, L. Jones, & J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp. 185–202). Chichester, UK: Wiley-Blackwell.

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review, 80*, 252–283.

Mischel, W. (2004). Toward an integrative model for CBT: Encompassing behaviour, cognition, affect and process. *Behavior Therapy, 35*, 185–203.

Monahan, J. (1981). *The clinical prediction of violent behaviour*. Rockville, MD: National Institute of Mental Health.

Monahan, J., Steadman, H. J., Silver, E., Appelbaum, P. S., Clark Robbins, P., Mulvey, E. P., Roth, L. H., Grisso, T., & Banks, S. (2001). *Rethinking risk assessment: The MacArthur Study of Mental Disorder and Violence*. New York: Oxford University Press.

Morgan, K. D., & Smith, B. (2005). Parole release decisions revisited: An analysis of parole release decisions for violent inmates in a southeastern state. *Journal of Criminal Justice, 33*, 277–287.

National Parole Board (2005). *NPB policy manual, electronic version (Vol 1 No. 7A)*. Ottawa, Canada: Author.

Nuffield, J. (1982). *Parole decision-making in Canada: Research towards decision guidelines*. Ottawa: Solicitor General of Canada.

Ogloff, J.R.P., & Davis, M. R. (2005). Assessing risk for violence in the Australian context. In D Chappell & P. Wilson (Eds.) *Crime and justice in the new millennium*, (pp. 301–338). Sydney: Lexis Nexis.

O'Leary, V., & Glaser, D. (1972). The assessment of risk in parole decision making. In D.J. West (Ed.) *The future of parole*. New York: International Publications Service.

Olweus, D. (1979). Stability of aggressive reaction patterns in males: A review. *Psychological Bulletin, 86*, 852–875.

Owens, W. A., & Schoenfeldt, L. F. (1979). Toward a classification of persons. *Journal of Applied Psychology, 64*, 569–607.

Petersilia, J. (2001). Prisoner re-entry: Public safety and reintegration challenges. *The Prison Journal, 18*, 360–375.

Polaschek, D.L.L., Calvert, S. W., & Gannon, T. A. (2009). Linking violent thinking: Implicit theory-based research with violent offenders. *Journal of Interpersonal Violence, 24*, 75–96.

Porporino, F. J. (1986). Managing violent individuals in correctional settings. *Journal of Interpersonal Violence, 1*, 213–236.

Prochaska, J. O., & DiClemente, C. C. (1984). Toward a comprehensive model of change. In W.R. Miller & N. Heather (Eds.), *Treating addictive behaviours: Processing of change*. New York: Plenum.

Proctor, J. L. (1999). The 'new parole': An analysis of parole board decision making as a function of eligibility. *Journal of Crime and Justice, 22*, 193–217.

Proctor, J. L. (2000). Parole as institutional control: A test of specific deterrence and institutional misconduct. *The Prison Journal, 80*, 39–55.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk* (2nd ed). Washington, DC: American Psychological Association.

Ross, L. (1977). The intuitive psychologist and his shortcomings. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 173–220). New York: Academic Press.

Scott, J. E. (1974). The use of discretion in determining the severity of punishment for incarcerated offenders. *The Journal of Criminal Law and Criminology, 65*, 214–224.

Shine, J. (2010). Working with Offence Paralleling Behaviour in a therapeutic community setting. In M. Daffern, L. Jones, & J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp. 203–214). Chichester, UK: Wiley-Blackwell.

Sorensen, J., Wrinkle, R., & Gutierrez, A. (1998). Patterns of rule-violating behaviours and adjustment to incarceration among murderers. *The Prison Journal, 78*, 222–231.

Steadman, H. J., & Cocozza, J. J. (1974). *Careers of the criminally insane: Excessive social control of deviance*. Lexington, MA: Lexington Books.

Steinke, P. (1991). Using situational factors to predict types of prison violence. *Journal of Offender Rehabilitation, 17*, 119–132.

Sturmey, P. (2010). Case formulation in forensic psychology. In M. Daffern, L. Jones, & J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp. 25–52). Chichester, UK: Wiley-Blackwell.

Trulson, C. R., DeLisi, M., Marquart, J. W. (2009). Institutional misconduct, delinquent background, and rearrest frequency among serious and violent delinquent offenders. *Crime and Delinquency*. Available online at http://cad.sagepub.com/content/early/2009/07/20/0011128709340224.

Tversky, A., & Kahneman, D. (1974). Judgments under uncertainty: Heuristics and biases. *Science, 185*, 1124–1131.

Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). *HCR-20: Assessing risk for violence* (version 2). Mental Health, Law, and Policy Institute, Simon Fraser University, Burnaby, BC.

West-Smith, M., Pogrebin, M. R., & Poole, E. D. (2000). Denial of parole: An inmate perspective. *Federal Probation, 64*, 3–10.

Wong, S., & Gordon, A. (2000). *Manual for the Violence Risk Scale*. Saskatchewan, Canada: University of Saskatchewan.

Zamble, E. (1992). Behaviour and adaptation in long-term prison inmates: Descriptive longitudinal results. *Criminal Justice and Behaviour, 19*, 409–425.

Zamble, E., & Porporino, F. (1990). Coping, imprisonment, and rehabilitation: Some data and their implications. *Criminal Justice and Behaviour, 17*, 53–70.

Zimbardo, P. G., Haney, C., Banks, W. C., & Jaffe, D. (1973, April 8). The mind is a formidable jailer: A Pirandellian prison. *New York Times Magazine, Section 6, 36*.

CHAPTER TWO: METHOD

Overview of method

This chapter describes the over-arching research design and methodology for this project. The methodological aspects relevant to each individual study are also presented in the method sections of each research paper.

Method

Subjects

The sample consisted of 148 adult male violent offenders sentenced to a period of imprisonment in Victoria, Australia. A portion of each subject's sentence was served at one of the following state government-operated correctional centres: Barwon Prison (high security), Loddon Prison (medium security) and Marngoneet Correctional Centre (medium security).

According to Corrections Victoria's sentence management procedure, the Victorian Intervention Screening and Assessment Tool (VISAT) is administered to a prisoner within six weeks of the commencement of their prison sentence (Corrections Victoria, 2012). The VISAT is a locally derived measure designed to establish general risk of re-offending and identify the need for treatment; the VISAT is yet to be validated. An overall risk rating is provided, along with risk ratings on multiple specific domains, one of which is violence. On the basis of this risk rating and/or criminal history information indicating a history of violent offences, an offender is referred for a violence risk assessment.

All offenders in the sample participated in a violence risk assessment. The assessment procedure employed by Corrections Victoria incorporates the administration of the Violence Risk Scale (VRS; Wong & Gordon, 2000) by a Corrections Victoria clinician. The overall VRS risk rating guides the allocation of prisoners to a moderate or high intensity Violence Intervention Program (VIP) as deemed appropriate by the assessor. Subjects included in the sample were released from prison no later than the 1st of August 2010 to allow for an ample follow-up period over which to collect recidivism data.

Study one

Two subjects who were not considered for release on parole were excluded from study one, leaving a total of 146 offenders.

Study two

The second study utilised the full sample of 148 subjects.

Study three

Ninety-four subjects were included in the third study sample. The inclusion criteria for study three required subjects to be deemed moderate or high risk according to the VRS assessment. The decision to exclude low-risk offenders was based on the limited file information typically available for this cohort. The original low VRS risk rating was over-ridden for three offenders by Corrections Victoria clinicians and these three offenders were referred for the VIP. Therefore, these subjects were included in the sample. Secondly, subjects deemed moderate or high risk were removed from the sample if there was insufficient file information available to score the Offence Analogue and Offence Reduction Behavior Rating Guide (Gordon & Wong, 2009). File information was deemed insufficient if there was: 1) no case management notes

completed by custodial staff, or existing notes lacked detail regarding an offender's behaviour, and 2) if there were no clinical notes completed by clinical staff, if existing notes were limited in detail regarding an offender's behaviour, or if the VIP treatment completion report was limited in detail.

Procedure

Data collection for this research project was conducted over two stages. The first stage consisted of a retrospective case file review, which took place between 10 March 2010 and 20 December 2011. The second stage involved the collection of post-release data relating to: 1) parole cancellation from the APB, and 2) violent criminal charges from Victoria Police. This stage was conducted between 21 December 2011 and 16 March 2012. The two stages of data collection are described in further detail below.

Data collection: Stage one

The data collected during stage one included: 1) the independent variables for all three empirical studies; and 2) the first dependent variable for study one, the outcome of the parole decision. The variables utilised in each empirical study will be outlined below.

The first stage of data collection was conducted via a retrospective review of three case-files for each subject. The Clinical Service File and the Individual Management Plan file were provided by Correction's Victoria. These files were reviewed at the head office of Corrections Victoria. The third file consisted of the APB file, which was reviewed at the head office of the APB. The information included in each file is detailed below. It should be noted that the level of file information available for each offender varied, and the documents outlined below were not consistently available for all offenders in the sample.

Clinical Service file. This file comprised pre-treatment assessment reports, VRS assessment paperwork and interview guide, documentation relating to an offender's participation in group and individual treatment programs (e.g. VIP and substance abuse treatment), including progress notes for each session and treatment completion reports.

Individual Management Plan (IMP) file. This file included hard copy print-outs of information from Corrections Victoria's Prison Information Management System (PIMS) electronic database. The PIMS documents included: sentencing information (including the index offence, sentence length and parole eligibility dates) and some demographic and personal history information routinely gathered upon prison entry. Other information contained in the IMP file included: official criminal history records, VISAT assessment paperwork, case management notes completed by custodial staff relating to the offender's institutional behaviour, documentation of disciplinary incidents, documentation of participation in education or occupational training, and documentation relating to prison processes such as leave applications and prison transfer.

APB file. Official criminal history records, Judge's Sentencing Comments (transcripts of the court proceedings for an offender's index offence and/or previous offences), Victoria Police documentation relating to past criminal charges, reports prepared by various professionals at the time of sentencing for the current and/or previous charges, prison documentation relating to an offenders institutional behaviour, documentation relating to the completion of education and vocational training programs, some treatment documentation (such as program completion reports), submissions to the APB from the offender, the victim and/or other relevant individuals,

documentation relating to the offender's performance on previous parole orders in Victoria, and transcripts from previous parole reviews involving interviews with the offender. Progress Reports and a Parole Assessment Report prepared by a Community Corrections Officer (CCO) are also included in the APB file. Progress reports discuss an offender's progress over their sentence in relation to issues such as treatment completion and institutional behaviour. The Parole Assessment Report is conducted prior to an offender's potential release on parole and provides details of the offender's parole plan. Further information regarding the Parole Assessment Report is provided in the first empirical study (chapter three).

Data collection protocol

A data collection protocol was developed to facilitate the systematic review of the case files for each subject (See Appendix A). The data collection protocol included descriptions of all variables to be recorded along with any necessary coding instructions. The protocol comprised a set of measures in addition to a series of variables grouped into the following categories: demographic variables, criminal history and offence-related variables, institutional variables, and parole-related variables. The outcome of the parole decision was also incorporated into the data collection protocol. These variables are described in further detail below. Data collection was undertaken by two Provisional Psychologists who were completing their Doctorate in Clinical Psychology (Forensic Specialisation) and were under the supervision of an experienced Clinical and Forensic Psychologist.

Interrater reliability. Fifteen cases were double-coded, which comprised 10.3% of the overall sample. Overall interrater reliability was good to very good. All but two Cohen's Kappa co-efficients were significant at $p < .05$. The average Cohen's Kappa

coefficient for dichotomous variables was 0.77. The average measure Intraclass Correlation Coefficient (ICC) for continuous variables was 0.99, and all coefficients were significant at $p <.001$. The average measure ICC for ordinal variables was 0.85. All but two coefficients were significant at $p = <.01$, except for two coefficients. The mean Krippendorff's alpha for all categorical variables was 0.79 (Hayes & Krippendorff, 2007; Krippendorff, 2004).

Measures

Cormier-Lang System. The Cormier-Lang System (Quinsey, Harris, Rice & Cormier, 2006) can be used to quantify the severity of an offender's index offence or their collective criminal history based on official records of criminal convictions. In study one this was used to quantify the severity of the subjects' index offences. The system organises offences into two groups. The first group consists of violent offence-types (e.g. Homicide), and the second group consists of non-violent offence-types (e.g. Fraud). Each offence-type is given a numerical severity rating (e.g. Homicide = 28; Fraud = 5). To calculate the severity of each subject's index offence(s), the offence(s) were assigned the appropriate numerical rating (multiplied by the number of counts for this offence). Total scores are calculated for group one and group two; the sum of these scores produces the total index offence severity score, which was utilised in the current research. This system is based on the Canadian Criminal Code, therefore, Quinsey and colleagues advise that when using this system in other jurisdictions that personal judgement may be used to approximate the scores for offences that don't appear in the Cormier-Lang guide or to categorise those offences that may be listed under a different label in other jurisdictions. The Cormier-Lang system was deemed suitable for use in the present study given that both the Criminal Code of Australia and the Criminal Code

of Canada are based on British Common Law (Baksheev, Thomas, & Ogloff, 2010). If a subject's index offence did not appear in the Cormier-Lang guide under the same label, agreement was reached between coders regarding the existing category that most closely resembled the offence to be coded. These decisions were recorded and used systematically throughout.

Violence Risk Scale. The Violence Risk Scale (VRS; Wong & Gordon, 2000) is a 26-item structured professional judgement measure designed to assess risk for future violence, identify treatment targets and monitor for change in risk level post-treatment. This measure contains six static and twenty dynamic risk factors that are rated on a 4-point scale (0, 1, 2, or 3). Scores of 2 or 3 on dynamic risk factors are said to indicate criminogenic needs that may be targeted in treatment. The VRS produces a static risk score, a dynamic risk score and an overall total risk score. The total risk score is also categorised as low, moderate or high risk. Stage of change scores, based on a modified Transtheoretical Model of Change (Prochaska, DeClemente & Norcross, 1992) are recorded for each dynamic factor prior to treatment as an indication of treatment readiness. The VRS may be re-administered during and/or post treatment to assess any change in risk level. Progression to a subsequent stage of change (e.g. from 'pre-contemplation' to 'contemplation') upon re-appraisal is said to indicate a reduction in risk on that dynamic factor; every stage the offender progresses through translates to a 0.5 reduction in the risk rating for that particular dynamic factor. A revised VRS total score is then calculated from the unchanged static risk score and the modified dynamic risk score.

The VRS has been shown to predict violence in a British forensic inpatient sample (Dolan & Fullam, 2007) and both violent and non-violent recidivism in adult

male offenders in Canada (Wong & Gordon, 2006). Predictive validity of the VRS has also been demonstrated in a population of high-risk offenders with psychopathic traits (Lewis, Olver, & Wong, 2012). However, no research to date has examined the predictive validity of the VRS in an Australian sample.

The VRS is routinely employed as a risk assessment and treatment allocation tool by Corrections Victoria; as such, it was used in the current study as an indication of risk for future violence. The completed VRS paperwork was available in the Clinical Service File. A pre-treatment score was available for 143 subjects (96.6%), and a post-treatment VRS score was available for 67 subjects (45.3%). Given the insufficient availability of the post-treatment VRS scores, the pre-treatment scores were used in the current research. The continuous total risk score (sum of the static risk score and dynamic risk score) was used in data analyses reported in study one and two. The risk category was utilised for descriptive purposes in all three studies.

The Offence Analogue and Offence Reduction Behaviour Rating Guide. The Offence Analogue and Offence Reduction Behaviour Rating Guide (OAB and ORB rating guide; Gordon & Wong, 2009) was developed as a supplement to the VRS and assists clinicians to monitor OABs and ORBs within custodial environments. The rating guide is structured around the twenty dynamic VRS factors. The assessor is required to identify OABs and ORBs relevant to the offender for each dynamic factor, then rate the frequency of occurrence of the OABs and ORBs over the designated review period. Frequency ratings are recorded on a 4-point scale labelled: 'never', 'seldom', 'somewhat frequent' and 'frequent'. The frequency of the behaviours over different review periods can be compared, and a change in frequency is said to illustrate treatment effect. The rating guide provides a list of potential OABs and ORBs for each

dynamic factor. For instance, an example OAB provided for the dynamic factor work ethic is 'refuses or is resistant to engage in prescribed treatment, vocational and/or educational institutional activities', and an example ORB is 'participates consistently well in institutional work or educational programs'. The assessor may select relevant behaviours from this list and/or identify alternative behaviours specific to the offender. An alternative behaviour demonstrating work ethic ORB may include: 'demonstrates commitment to institutional occupation through regular attendance and volunteering to take on roles that require more responsibility'.

This measure was utilised in the third empirical study (chapter five). The scoring was undertaken via retrospective review of the Clinical Service file, the Individual Management Plan file and the APB file (see above for documents included in each file). The single review period commenced upon the subjects' entry to prison and ceased on the date of release; therefore, frequency judgements were based on a review of file information documented during this period. Multiple review periods were not utilised in the current study due to the retrospective study design, which led to difficulty consistently identifying the dates for all of the behaviours recorded.

Variables included in data collection protocol

Demographic variables. The demographic variables recorded for each offender included: date of birth, ethnicity, employment history, and history of alcohol abuse and/or other drug abuse.

The subject's date of birth, along with the date of prison entry, date of key parole review and the date of release from prison, were used to calculate the following age-related variables: Age at the time of prison entry (used in the first stage of data analysis in study two and study three), age at the time of the parole release decision

(used in study one), and age at the time of release (used in the second stage of data analysis in study two).

With the exception of age, the remaining demographic variables were coded categorically. Ethnicity was classified according to three categories: Australian/Caucasian, Aboriginal or Torres Strait Islander, and other ethnicity. Employment history was coded according to three categories: never employed, frequently unemployed, and full-time employment of one year or more. An offender's history of alcohol abuse and history of drug abuse were recorded as dichotomous variables (yes/no). This information was gathered from pre-treatment assessment reports, Parole Assessment Reports, and PIMS documents including demographic and personal history information routinely gathered upon prison entry. There was no valid historical data relating to the presence of mental illness among offenders in the current sample. Therefore this variable was not included.

Criminal history and offence-related variables. The official criminal history records produced by Victoria Police were provided in the subjects' case files. The total number of prior convictions (including violent and non-violent offences) and the total number of prior violent convictions were recorded. The index offence resulting in the current term of imprisonment was coded using the following categories: murder/manslaughter, assault (including recklessly/intentionally and/or negligently causing serious injury), sexual assault, robbery (including armed robbery, aggravated burglary), other violent offences (including kidnapping, unlawful imprisonment, threaten to kill), drug-related offences (including trafficking, possession/cultivation of substances), property-related offences (including criminal/property damage, burglary, theft), breach of parole/community-based order, and other non-violent offences

(including handle/receive stolen goods, obtain property/financial advantage by deception, possession of a weapon). If the index offence consisted of more than one type of offence, the more severe offence type was coded. The National Offence Index (NOI; Australian Bureau of Statistics, 2009) was used to determine offence severity. The length of the current sentence was recorded from sentencing information produced from the PIMS database.

Institutional variables. Data relating to general and aggressive misconduct within prison was accessed from official 'incident reports' produced from the PIMS database contained within the IMP and APB files. The date of each act of misconduct ('incident') was recorded. A brief description of the behaviour (provided in the incident report) was recorded in the coding manual. From this description the behaviour was classified according to the following categories: 1) Physical violence (e.g. assault of another prisoner or custodial staff), 2) Other aggressive acts (e.g. verbal abuse or property damage), 3) drug-related misconduct (e.g. positive urine result), 4) non-compliance with prison regulations (e.g. trespassing or smoking a cigarette in a restricted area) and 5) Sexually-based misconduct. If sexually-based misconduct constituted an aggressive or violent act of misconduct it was coded as such. Due to the infrequence of this type of misconduct within the official documentation reviewed, it was not utilised as a separate variable in data analysis in the present research. The total number of incidents for each category was recorded. The total number of 1) acts of physical violence, and 2) other aggressive acts, was used in study one and two. The total number of incidents across all categories was also recorded. This variable was used is study one.

The second institutional variable, 'treatment completion' related to whether or not an offender completed the Violence Intervention Program. Three categories were used to code this variable: 'did not complete the program', 'did complete the program' and 'not-applicable', which meant the offender did not commence the violence treatment program. This data was accessed from treatment documentation in the Clinical Service File.

Parole-related variables. This set of parole-related variables was derived from a review of the literature regarding the factors that influence parole decisions and the factors outlined in the APB member's manual. The APB member's manual is a document provided to board members of the APB containing information related to: the various processes and responsibilities of the APB, governing legislation, Victoria's correctional centres and community correctional services, the rehabilitation and support services offered within these custodial and community settings, and an outline of the factors to be considered in the board's decision. These factors included: the nature and circumstances of the index offence, criminal history, compliance with previous parole or other community-based correctional orders, release plans, reports from various medical, mental health, custodial and community corrections staff, and submissions from the offender, victim or others. The interests of the offender and the community, together with the intentions of the sentencing authority also highlighted for consideration. This manual was under review at the time of the present research and a working copy was provided to the author.

Three factors related to an offender's parole plan and supports in the community were recorded: confirmed accommodation (yes/no), confirmed employment (yes/no), and family support (yes/no). This information was gathered from the Parole Assessment

Report. A subject was deemed to have family support if the CCO reported that the individual had support from a family member(s) or spouse, and/or if they had confirmed accommodation with a family member or spouse. These determinations could also be supported from other file information such as case management and treatment notes. The Parole Assessment Report also included a recommendation from the CCO regarding whether or not they recommended an offender be granted parole at that time. The CCO's recommendation was coded as 'yes' if this was clearly stated by the CCO in their report, or 'no/inconclusive' if the CCO stated they did not support release or no clear recommendation was provided. The cancellation of any previous parole orders in Victoria was recorded as a dichotomous variable: 'no previous parole cancellation' and 'previous parole cancellation'. This was noted in the Parole Assessment Report and documentation relating to previous parole orders in Victoria. The presence of a submission from the victim of the index offence to the APB (presence or absence of a victim submission), and whether the submission supported or did not support release on parole was also coded (yes/no). Victim submissions were contained in the APB file in the form of a letter from the victim addressed to the parole board discussing the offender's release on parole, or a submission from the victim's registry on the victim's behalf.

Outcome of the parole decision. Study one incorporated two phases of data analysis. The outcome of the parole decision formed the dependent variable for the first phase of data analysis. This was coded as a dichotomous variable: 'granted' or 'denied'. If an offender has a non-parole period set at the time of sentencing and is therefore eligible for parole, they are subject to a series of reviews by the APB over the course of their prison sentence. These reviews involve a review of file information by the three

allocated board members and may or may not involve an interview with the offender. A parole review takes place approximately 4-8 weeks prior to the date at which an individual becomes eligible for parole (Earliest Eligibility Date; EED), which is determined at the time of sentencing. This parole review is considered the key review during which an offender's suitability for release is determined. The Parole Assessment Report is typically requested from the CCO and submitted to the APB prior to this parole review. However, if the APB had explicitly documented in the subject's APB file that parole was not to be considered until a specific date (that did not fall within the 4-8 week period prior to the EED), and the APB did not request that the PAR be completed until this specified date, this was considered as the key review.

In the present research the parole decision was coded as a dichotomous variable (granted/denied). Parole was considered 'granted' if a release date was set at this key parole review (specified above), and 'denied' if a parole release date was not set at this parole review. The outcome of each parole review was documented on the inside cover of each subject's APB file.

Data collection: Stage two

The second stage incorporated the collection of data relating to the subjects' behaviour following release. Of interest, was 1) whether or not the subjects released on parole had their parole order cancelled, and 2) whether or not the subjects released on parole or via a 'straight release' mechanism were charged with a violent offence in the community during the follow-up period.

Follow-up period. The aforementioned data was collected from the date of each subject's release (no later than 1 August, 2010) until the end of the follow-up period, 16

March, 2012. The length of the follow-up period ranged from 19 months (1.6 years) to 68 months (5.6 years), with a mean of 44 months (3.6 years).

Parole cancellation. Data relating to the completion of a subject's parole order was accessed from the PIMS electronic database at the APB Head Office. Upon receiving a report of a breach of parole conditions or further offences committed during the parole period, the parole board makes a decision as to whether to cancel an offender's parole order. The date and outcome of the APB's decision as documented on the PIMS database was recorded. The outcome of the decision to cancel a parole order was recorded as a dichotomous variable (yes/no). When the decision was coded as 'yes', the date of parole cancellation was recorded. When the decision was coded as 'no', the alternative outcome of the decision was also noted. The alternative decision outcome was recorded under the following categories: 'no action' (when parole was not cancelled and no further detail was provided), 'defer the decision' (which may occur in the case of ongoing legal proceedings regarding criminal charges laid during the parole period), 'formal warning', 'condition added or varied' (in the event of changes to the conditions of an offender's parole order) and 'interviewed by the board'. Data relating to the alternative decision outcome was not utilised in the empirical studies comprised in this thesis; however, descriptive statistics for this variable are included in Appendix G. The dichotomous parole cancellation variable (yes/no) comprised the dependent variable in the second phase of data analysis for study one.

Violent recidivism. Victoria Police provided official records of criminal charges received by each subject over the specified follow-up period. The data recorded included the total number of violent charges, the date of each charge, and the offence the subject was charged with. Offences categorised as violent included:

murder/manslaughter, assault, sexual assault, robbery, and other violent offences (see index offence categories for further detail). A dichotomous variable (no violent charge/one or more violent charges) and time to the first violent charge (calculated using the offender's date of release from prison and the date of first violent charge) were used as dependent variables in study two and study three.

Data analysis

Study one. Data analysis in study one was conducted over two phases. The first examined which independent variables (including the demographic, criminal history and offence related, institutional, and parole-related variables) significantly predicted the outcome of the parole decision. The second phase investigated which of these factors was significantly associated with the cancellation of an offender's parole order. The bivariate relationships between each independent variable and both dependent variables were examined using chi-square analysis and logistic regression analysis. The factors emerging as significant at the bivariate level were then included in a multivariate logistic regression in order to identify the most important predictors of the parole decision and parole cancellation. Cox regression analysis, a form of survival analysis, was also used to examine time to parole cancellation. Cox regression analysis accounts for the differing periods of time spent in the community amongst subjects in the sample and allows for the analysis of time to a discrete event, such as parole cancellation.

Study two. The first phase of data analysis in study two aimed to describe the offenders who engaged in aggressive behaviour during imprisonment in relation to demographic characteristics, level of violence risk and sentence length. The techniques used for this purpose included chi-square analysis and one-way between groups analysis of variance (ANOVA). The second phase of data analysis investigated the relationship

between aggressive misconduct within prison and violent charges following release when controlling for the effect of violence risk as measured by the VRS. The bivariate relationship between three additional variables and violent charge was also examined with the view to control for these variables in subsequent multivariate analysis. These variables included age at the time of release, ethnicity and sentence length. Cox regression analysis was used to establish whether these independent variables predicted time to violent charge at the bivariate and multivariate level.

Study three. The first phase of data analysis for study three examined how frequently the OABs and ORBs for each dynamic VRS factor were observed and recorded over the subjects' period of imprisonment.

The second phase investigated the bivariate relationship between the presence of the OABs and ORBs and violent criminal charges post-release. Cox regression analysis was used to examine this relationship. The OABs and ORBs significantly associated with time to violent charge at $p < .01$ were subsequently included in a multivariate Cox regression analysis to identify the most important predictors of time to violent charge. A more conservative alpha level was selected due to the multiple bivariate comparisons conducted, which serves to increase the possibility of spurious positive results.

The data for all three studies were analysed using SPSS for Windows version 19.0 (IBM Corp., 2010). Missing data was addressed by removing cases through a pairwise process from each analysis.

Ethical Approval

Ethical Approval for the current research was obtained from the Department of Justice Human Research Ethics Committee (See Appendix B), the Monash University

Human Research Ethics Committee (see Appendix C), and the Victoria Police Human Research Ethics Committee (See Appendix D). In addition, approval to carry out the research was obtained from the Adult Parole Board of Victoria (Appendix E) and Corrections Victoria (Appendix F). The current research complied with the conditions of ethical approval agreed upon with each committee, including data collection and storage procedures. Annual progress reports were submitted to each committee detailing the current phase of the research project and any publications produced.

CHAPTER THREE: ELUCIDATING THE FACTORS THAT INFLUENCE PAROLE DECISION MAKING AND VIOLENT OFFENDERS' PERFORMANCE ON PAROLE

Preamble to empirical paper

Chapter three presents the first empirical study of the thesis. It has been discussed previously that aggressive misconduct influences parole release decisions, along with a range of factors, including but not limited to: demographic characteristics, criminal history, offence-related variables, treatment completion and risk for future violence. However, it is unclear which factors influence the release decisions made by the Adult Parole Board of Victoria (APB), and whether these factors are related to an offender's performance on their parole order. This study attempts to meet this shortfall in the literature.

The link between aggressive misconduct, the outcome of the parole decision and parole performance is not the exclusive focus of this paper; rather it is one of a broader set of variables being examined. However, by identifying whether aggressive misconduct influences the decision to release an offender on parole, this study provides the foundation for the second study of this thesis that explores whether aggressive misconduct is related to violent recidivism post-release.

This paper was accepted for publication in *Psychiatry, Psychology and Law*, the official journal of the Australian and New Zealand Association of Psychiatry, Psychology and Law (ANZAPPL). This peer-reviewed journal has a multi-disciplinary readership comprised of scholars and professionals working within fields of

psychology, psychiatry, criminology, civil and criminal law and related areas. This manuscript was accepted for publication on 21 June, 2013.

Monash University

Declaration for thesis chapter three

Declaration by candidate

In the case of Chapter three, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Literature review, study design, data collection and analysis and preparation of paper	80%

The following co-authors contributed to the work:

Name	Nature of contribution	Extent of contribution (%)
A/Prof Michael Daffern	General supervisory input, review and editing of paper drafts.	20%

Candidate's signature: Date:

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
(4) there are no other authors of the publication according to these criteria;
(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location: Centre for Forensic Behavioural Science, Monash University, 505 Hoddle Street, Clifton Hill, VIC 2068.

Signature 1:   Date:

Elucidating the factors that influence parole decision making and violent offenders'

performance on parole

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Abstract

A discretionary parole decision-making process is maintained in multiple jurisdictions internationally. There is a lack of contemporary research examining the factors that influence discretionary parole decisions, particularly in an Australian context. Moreover, there is no known research examining the relationship between these factors and the likelihood an offender will successfully complete their parole order. The current study investigated which factors were significantly associated with: (1) the parole decisions made by the Adult Parole Board of Victoria, Australia and (2) the cancellation of an offender's parole order, in a sample of 146 violent offenders. Four variables emerged as significant predictors of the parole decision: aggressive disciplinary incidents, the Violence Risk Scale (VRS) total score, the Community Correction Officer's (CCO) recommendations for release, and confirmed accommodation. At the multivariate level, the VRS total score and the CCO's recommendations remained significant predictors. With regard to parole cancellation, a range of factors were significant at the bivariate level; these included: a history of drug abuse, total prior convictions, aggressive disciplinary incidents, the VRS total score, previous parole cancellations, the CCO's recommendations, confirmed accommodation, and family support. However, family support emerged as the most important predictor in multivariate analysis. These findings provide valuable feedback to members of parole boards regarding the factors that influence their release decision and the factors subsequently linked to parole cancellation.

 KEY WORDS: Parole decision making, Parole performance, parole revocation, parole cancellation, violent offenders.

Elucidating the factors that influence parole decision making and violent offenders'

performance on parole

The parole system acts as the primary mechanism through which offenders are released into the community following imprisonment. This system has undergone significant modifications over recent decades. The most noteworthy change occurred subsequent to the introduction of mandatory sentencing, which saw the limitation and in some cases removal of the discretionary decision-making powers of parole authorities in jurisdictions across the United States, Canada, and the United Kingdom. These reforms occurred in the context of criticisms focusing on the unstructured and inconsistent nature of the parole decision-making process (Bonham, Janeksela & Bardo, 1986; Heinz, Heinz, Senderowitz & Vance, 1976; Petersilia, 2001). Contemporary parole authorities typically adopt one of two broad approaches. The first involves a discretionary decision-making process. Under this approach, the factors considered in the parole decision, and the weight attributed to these factors, are at the discretion of board members. The second approach is governed by mandatory sentencing practices, under which offenders are automatically released at the completion of their term of imprisonment; a date determined at the time of sentencing. Presently, several paroling authorities operate under an indeterminate sentencing framework and therefore maintain a discretionary parole decision-making process (Kinnevy & Caplan, 2008). In 2007, the Association of Paroling Authorities International (APAI) conducted an international survey of releasing authorities (Kinnevy & Caplan, 2008). Thirty-four per cent of releasing authorities in the United States were governed by a determinate sentencing framework, 21.3% were governed by an indeterminate sentencing framework, and 44.7% of releasing authorities operated under both a determinate and indeterminate

sentencing framework (Kinnevy & Caplan, 2008). Further, of those releasing authorities operating under a determinate sentencing framework, three-quarters maintained some discretionary release powers. In these jurisdictions, discretionary release is often reserved for offenders convicted of serious offences (Gobeil & Serin, 2010). This illustrates the widespread ongoing use of discretionary decision-making processes by releasing authorities, and prompts further investigation into which factors influence parole decisions and how such decisions are made. This is the primary focus of the current study.

Factors considered in parole decision making

The parole release decision is both complex and important, requiring parole board members to consider a myriad of factors relating to the rights of the offender and the safety of the wider community. Studies investigating the parole decision-making process have provided varied results in terms of the factors considered and the relative weights attributed to each factor by parole board members. The factors that consistently emerge in studies of parole decision making are: offender characteristics (e.g. age and ethnicity; Bonham, et al., 1986; Huebner & Bynum, 2006), criminal history and offence-related variables (Bonham et al., 1986; Huebner & Bynum, 2006; Morgan & Smith, 2005; Scott, 1974), participation in treatment programs and institutional misconduct (Carroll, Weiner, Coates, Galegher & Alibrio, 1982; Conley & Zimmerman, 1982; Scott, 1974; West-Smith, Pogrebin, & Poole, 2000), variables related to an offender's release plan (e.g. employment and accommodation; Bonham et al. 1986; Hood & Shute, 2000), recommendations from corrections staff (Morgan & Smith, 2005; Proctor, 1999), and an assessment of an offender's risk of recidivism (Bonham et al. 1986; Hood & Shute, 2000; Proctor, 1999). In the 2007 APAI survey, participating

parole authorities were asked to rank a series of factors depending on their impact on release decisions (Kinnevy & Caplan, 2008). Results indicated that crime severity was ranked as the most influential factor, followed by crime type, criminal history, number of victims, age of victims, institutional behaviour, mental illness, the age of the offender at the time of the crime, gender of the victims, and the gender of the offender respectively (Kinnevy & Caplan, 2008). Factors relating to the offender's parole plan, risk assessment tools or recommendations from other professionals were not included in this aspect of the survey. Similarly, in a review of empirical research examining the factors considered by paroling authorities, Caplan (2007) highlighted institutional behaviour, crime severity, criminal history, mental illness, and victim input as the factors commonly attributed the most weight. A key limitation of the research examining parole decision making is that the same factors are not consistently examined across studies. This renders it difficult to identify which factors consistently have the most impact on parole decisions, and contributes to the variability of the findings in this field. In addition, Caplan (2007) notes that much of this research is dated and may have limited relevance to contemporary parole practices.

There are several limitations associated with discretionary parole decision making and unstructured decision-making processes more broadly. Parole release decisions are typically made under considerable time pressure and board members are often provided with large volumes of file information for each offender (Gobeil & Serin, 2009). In this context board members may simplify their decision-making process and focus on key variables considered to be associated with performance on parole and recidivism (Gobeil & Serin, 2009). Such conditions may also increase the influence of cognitive heuristics and biases, which may limit the accuracy of unstructured decisions

(Carroll, 1978; Carroll & Payne, 1976; Ross, 1977; Tversky & Kahneman, 1974). Moreover, a large body of literature examining the assessment of risk for future violence highlights the inadequacy of unstructured decision making (Ægisdóttir, White, Spengler, Maugherman, Anderson, Cook, Lampropoulos, Walker, & Cohen, 2006; Monahan, 1981; Steadman & Cocozza, 1974). This is particularly pertinent to parole decision making, given that an over-arching consideration governing this decision is an offender's risk of recidivism following release (Gobeil & Serin, 2010; Hood & Shute, 2000; Meyer, 2001). Although a formal risk assessment is incorporated at some stage in the parole decision-making process in many jurisdictions (Kinnevy & Caplan, 2008), this may be one of multiple factors considered and ultimately a subjective risk judgement may be formed by the members of the board.

The potential for bias under discretionary decision-making approaches and the aforementioned limitations of previous research examining parole decision making highlight the need for further research examining the factors that influence discretionary parole decisions. This research should draw on a comprehensive list of factors that may be associated with the outcome of the decision, including demographic information, criminal history and index offence related factors, institutional factors relating to an offender's behaviour and participation in treatment, recommendations from corrections staff, formal risk assessment tools, and factors relating to an offender's parole plan.

Integral to the board's decision to release an offender is a judgement of their risk of recidivism and capacity to comply with the conditions of their parole order. The following section will focus on the latter consideration.

What factors contribute to success or failure on parole?

Offenders typically face multiple challenges when released on parole, and may have difficulty adjusting to life in the community while complying with parole requirements (Petersilia, 2001; Shinkfield & Graffam, 2009). The rates of parole revocation and recidivism on parole suggest there are significant needs present amongst parolees (Bureau of Justice Statistics, 2011; Halsey, 2010; Petersilia, 2001). The term 'revocation' is typically used to refer to the withdrawal of an offender's parole order due to a violation of their parole conditions and their subsequent return to custody. In the state of Victoria, Australia, this process is referred to as 'parole cancellation'. Therefore, the term 'cancellation' will be used in this study. The cycle of release and re-incarceration places strain on the limited resources of parole authorities and community corrections services, while contributing to instability within the offender's family and wider community (Halsey, 2010; Petersilia, 2001). Until recently, little was known about the factors associated with successful reintegration into the community. Given increasing prison populations and the associated demands placed on re-entry mechanisms such as parole, this was highlighted as an area in need of further research (Petersilia, 2001). Prisoner re-entry has received increased research attention over the past decade (Bahr, Harris, Fisher, & Armstrong, 2010; Burke & Tonry, 2006; Gray, Fields & Maxwell, 2001).

In 2008, Grattet, Petersilia and Lin published a comprehensive study of parole violations and revocations in California. The results indicated that the following factors were significantly related to the likelihood an offender will violate the conditions of their parole: younger age, male gender, African-American ethnicity, a record of past mental health difficulties, more intensive parole supervision requirements and an

increased number of prior prison sentences. The authors then examined the factors related to the decision to revoke a parole order and return an offender to prison in response to a parole violation (Grattet et al., 2008). The extent and nature of an offender's criminal history and prior periods of imprisonment, the severity of new criminal charges and the number of parole violations accumulated over the course of an offender's parole order were associated with the likelihood an offender's parole would be revoked. Ethnicity was also associated with parole violations and revocation, with Caucasian parolees least likely to have their parole order revoked in response to a parole violation. Overall, these findings illustrate that demographic characteristics and prior imprisonments are significantly related to the likelihood that an offender will violate the conditions of their parole order. However, criminal history and offence related variables, along with accumulated parole violations, play a significant role in whether an offender's parole order is revoked and they are ultimately returned to prison.

Little research has examined the correlates of parole completion in Australia. However, one study examining recidivism in parolees (Jones, Hua, Donnelly, McHutchison, & Heggie, 2006), which is a key reason for parole revocation, produced similar findings to that of Grattet and colleagues (2008). The parolees in this sample re-offended at a faster rate if they were younger in age, indigenous, had an increased number of previous custodial sentences, had one or more drug-related convictions, and their parole order was issued by the court rather than the New South Wales Parole Authority. Those who had a shorter incarceration period prior to release and were incarcerated for offences relating to violence, property crime or breaching justice orders also reoffended at a faster rate. These results supported the association of age, ethnicity,

criminal history and offence related variables to an offender's likelihood of reoffending and consequently, the revocation of their parole order.

The aforementioned studies neglected to examine the role of institutional variables (e.g. treatment participation and institutional behaviour), or variables related to an offender's level of support or involvement in the community. Bahr, Harris, Fisher, and Armstrong (2010) examined the factors associated with successful parole completion in a sample of 51 offenders released on parole, and incorporated factors relating to treatment completion, an offender's family, peers and their employment post-release. Successful parole completion was associated with the previous completion of a substance abuse program, increased levels of engagement in enjoyable activities with peers following release and of those employed, working 40 hours per week. Family support, support from peers, and increased self-efficacy were among variables associated with successful parole completion when qualitative data was examined. These findings suggest that post-release factors relating to community support and involvement may facilitate an offender's successful completion of parole.

Despite the increase in research attention directed toward prisoner re-entry, further research in this domain is required. Studies that have focused on factors that contribute to success or failure on parole have examined inconsistent sets of variables, limiting the capacity to compare these findings. Furthermore, there is a lack of research examining whether the factors considered in the parole decision are related to subsequent parole performance. Increased knowledge of the factors associated with success or failure on parole may facilitate parole decisions regarding the timing and conditions under which offenders are released into the community, while elucidating areas in which parolees require further support and management.

The present study

The present study was prompted by two pertinent issues in parole decision making research. The first issue concerns the widespread and ongoing use of discretionary approaches to parole release decision making. Research has highlighted several limitations and possible sources of bias inherent in this approach to release decision making and risk assessment. In addition, there is a lack of research investigating the factors considered in discretionary parole decisions, and the existing literature has provided somewhat inconsistent results. The second issue concerns the lack of research examining the association between the factors considered in the parole release decision and an offender's successful completion of their parole order. Following a review of this literature, it appears that similar factors have been shown to influence parole decisions and parole completion. These factors include offender characteristics such as age and ethnicity, criminal history and offence related factors, previous engagement in treatment programs and post-release factors such as employment. However, research examining parole success or failure has neglected to examine the impact of institutional behaviour, a factor shown to influence parole decisions. The current study endeavours to meet the aforementioned shortfall in the literature by examining the parole decisions made by the Adult Parole Board in the state of Victoria (APB), Australia, along with the subsequent parole performance of a cohort of violent offenders released on parole.

Aims

The current research program was divided into two stages. The aim of the first stage of the study was to investigate which factors predict the parole decision made by the APB for a cohort of violent offenders. The aim of the second stage was to

investigate which factors are significantly associated with the cancellation of an offender's parole order. This will allow the comparison of the factors that significantly predicted the outcome of the parole decision and those factors that are subsequently associated with the cancellation of an offender's parole order. The independent variables included in this study were chosen on the basis of a review of the literature illustrating the factors that significantly predict the outcome of parole decisions, along with those specified in the APB's member's manual.

Method

Subjects

The current study required offenders to be male and sentenced to a period of imprisonment, a portion of which was served at one of the state government-operated medium (Marngoneet, and Loddon) or high (Barwon) secure correctional centres in Victoria, Australia. Each offender had been assessed using the Violence Risk Scale (VRS; Wong & Gordon, 2000) to determine their risk for future violence and their suitability for violence treatment programs, in line with Corrections Victoria's code of practice. In Victoria, offenders are referred for a violence risk assessment using the VRS following a screening assessment conducted by prison officers upon their entry to prison. The factors that influence a referral for a violence risk assessment include a violent index offence, official records of previous violent charges and convictions, and/or a self-reported history of violent behaviour. It was also required that the sample were considered for release on parole by the APB, and released from prison, either on parole or at the completion of their sentence, no later than the 1st of August, 2010.

Setting

The Adult Parole Board of Victoria. The current study investigated the outcome of the parole decisions made by the APB of Victoria. In Victoria, release on parole is determined via a discretionary decision-making process. Each case is considered on an individual basis by a panel of three members of the APB. The board comprises both judicial and community members. This decision is informed by the file information available in the APB file for each offender which includes: an offender's official criminal history records, the Judge's Sentencing Comments relating to the court proceedings for an offender's index offence and/or previous offences, Victoria Police documentation relating to past criminal charges, reports prepared by various professionals at the time of sentencing for the current and/or previous charges, prison documentation relating to an offender's institutional behaviour, documentation relating to the completion of education and/or vocational training programs, treatment documentation and completion reports, submissions to the APB made by the offender, the victim and/or other relevant individuals, transcripts from previous parole reviews involving interviews with the offender, along with Progress Reports and a Parole Assessment Report (PAR) prepared by a Community Corrections Officer (CCO) (further detail provided below). Board members are provided with the APB member's manual which informs them of a variety of factors that should be considered, such as: the risk an offender poses to the community, the interests of the offender, the nature of the index offence, the offender's criminal history, the offender's release plans and reports prepared by a range of professionals. However, the weight to be attributed to each variable is not specified, and ultimately the release decision is made at the discretion of the three assigned board members. Over the course of an offender's prison

sentence they are subject to a series of reviews by the APB. These reviews may involve an interview with the offender and/or a review of file information. Approximately 4-8 weeks prior to the date at which an individual becomes eligible for parole (Earliest Eligibility Date; EED) which is determined at the time of sentencing, a PAR completed by a designated CCO is submitted to the APB. This report may include but is not restricted to: a brief psychosocial history, a description of the index offence, a summary of institutional behaviour (primarily disciplinary incidents), details of participation in treatment, details of the offender's parole plan (including arrangements for accommodation and employment) and a judgement of risk for future criminal recidivism generated by a locally derived structured measure with unknown validity. The CCO also provides a recommendation to the APB that states whether or not they believe the offender is suitable for release on parole. This parole review is considered by the board as the key review during which the offender's suitability for release on parole is considered. Therefore, the outcome of this parole decision is used as the dependent variable in the first stage of the current study. Further detail is provided in the dependent variables section below.

Source of information and data collection procedure

This study was conducted via a retrospective review of the case files for each offender. The case files reviewed included the Clinical Service file (this contains documentation relating to an offender's participation in group and individual treatment, including progress notes for each session and treatment completion reports), the Individual Management Plan file (this contains documentation of sentencing information, official criminal history records, case management notes relating to the offender's institutional behaviour, documentation of disciplinary incidents,

documentation of participation in education or occupational training, and documentation relating to prison processes such as leave applications and prison transfer) provided by Corrections Victoria, and the APB file (the file available to board members, the content of which was detailed above). The files were systematically reviewed using a structured data collection protocol developed for the purpose of the current study. The data collection protocol included a range of independent variables grouped into the following categories: demographic variables, criminal history and offence related variables, institutional variables, and parole-related variables. Information relating to an offender's completion of their parole order was accessed from the Prison Information Management System (PIMS). Cancellation of parole occurring from the offender's release date up until the end of the follow-up period, the 16th of March, 2012, was recorded. Two doctoral students completed data collection. Fifteen cases were double-coded, which comprised 10.3% of the sample. The Kappa and Intraclass Correlation Coefficients (ICC) were all significant at $p < .01$. Overall interrater reliability was good to very good, with an average measure ICC for ordinal scale variables of 0.89, an average measure ICC for continuous variables of 0.99, and an average Cohen's Kappa of 0.76 for dichotomous variables.

Independent variables

Demographic variables. The demographic information recorded for each offender included their age, ethnicity, and employment history. Whether or not they had a history of drug abuse and/or alcohol abuse was also recorded (See Table 1 for details regarding how each of the categorical independent variables used in the data analysis were coded). There was no valid historical data relating to the presence of mental illness among offenders in the current sample. Therefore this variable was not included.

Criminal history and offence related variables. The index offence for each offender was grouped into eight categories: Murder/Manslaughter, Sexual Assault, Assault, Robbery, Other Violent, Property related, Breach of Order/Parole and other non-violent. The severity of the index offence was quantified using the Cormier-Lang system (Quinsey, Harris, Rice & Cormier, 2006); see the measures section below for further detail. The length of the sentence of imprisonment assigned at the time of sentencing was also recorded. The offenders' criminal history was captured by recording the total number of prior convictions and the total number of prior violent convictions each offender had accrued. This was drawn from official police records included in the file information for each offender.

Institutional variables. The institutional variables recorded included the completion of treatment programs and the number of disciplinary incidents recorded over the course of offenders' current period of imprisonment. The treatment variable included an indication of whether participants had successfully completed an offence-specific treatment program targeting violence. Offenders were said to have not completed treatment if they commenced the treatment program and did not complete it (e.g. due to removal from the group, misconduct or transfer to another prison). This variable was coded as 'not applicable' if the offender was not recommended for treatment following the pre-treatment assessment and therefore did not commence the program. Offenders categorised as 'low risk' on the VRS pre-treatment assessment ($n = 32$) were typically deemed unsuitable for the violence treatment program, and were therefore excluded from analyses involving this variable. The total number of disciplinary incidents that were documented in official records was coded. The number of aggressive incidents, a subset of the total number of disciplinary incidents, was also

coded given that the sample for the current study is comprised of violent offenders. This included acts of physical violence (e.g. assault) or attempted physical violence directed at a person or property, and verbal aggression (e.g. verbal abuse directed at a prison officer).

Parole-related variables. These variables were recorded from the information provided in the PAR prepared by the CCO prior to an offender's release. This included whether the offender had confirmed accommodation and/or confirmed employment upon release. This information was provided in the PAR as part of the offender's parole plan. Whether the offender had family support in the community was also recorded. Family support was coded as present if the CCO reported that the offender had support from a specified family member(s) and/or their spouse in the PAR, and/or if the offender had confirmed accommodation with a family member and/or spouse. The CCO's recommendation in relation to an offender's suitability for parole was also recorded. Details of this report were provided above. The recommendations of custodial staff and case management officers have been shown to be influential in past research (Morgan & Smith, 2005; Proctor, 1999), and such recommendations are likely to be influenced by a range of different variables, similar to the parole decision. This variable was retained in the analysis in order to closely simulate parole board decision-making in practice. However, it was decided that if this variable was significantly related to the parole decision at the bivariate level, subsequent multivariate analyses would be conducted to examine which variables influenced the recommendations provided by CCOs. Therefore, this variable may be used as both an independent and dependent variable in the current study. The presence of a submission from the victim of the offender's index offence to the APB was also recorded. However, as victims only

provided submissions in 3.4% of cases, this variable was not included in the data analysis process. Finally, whether or not an offender had a prior parole cancellation in Victoria was recorded as a dichotomous variable.

Measures

  Cormier-Lang System. The Cormier-Lang System (Quinsey, Harris, Rice & Cormier, 2006) can be used to quantify the severity of an offender's criminal history and/or index offence based on official police records such as those available in the current study. In the current study this system was used to quantify the severity of an offender's index offence. Offences are organised into two groups, group one representing sub-types of violent offences and group two representing subtypes of non-violent offences. Each conviction included in the index offence is assigned a numerical rating, and total scores are calculated for group one, group two and an overall offence severity score. This system is based on the Canadian Criminal Code, therefore Quinsey and colleagues advise that when using this system in other jurisdictions personal judgement may be used to approximate the scores for offences not appearing in the Cormier-Lang guide or to categorise those offences that may be listed under a different label in other jurisdictions. The Cormier Lang system was deemed suitable for use in the current study given that both the criminal codes of Australia and the Criminal Code of Canada, on the basis of which the Cormier Lang system was developed, are based on British Common Law (Baksheev, Thomas, & Ogloff, 2010).

  Violence Risk Scale. The Violence Risk Scale (VRS; Wong & Gordon, 2000) is a structured professional judgement tool comprised of six static and twenty dynamic variables. The VRS is designed to assess risk for future violence, assess for treatment targets and monitor change on the dynamic risk factors. This tool may be administered

to an offender upon entry and at the completion of treatment to allow for the measurement of any change in risk for future violence. The VRS has been shown to predict violence in a British forensic inpatient sample (Dolan & Fullam, 2007), and both violent and non-violent recidivism in adult male offenders in Canada (Wong & Gordon, 2006). However, no research to date has examined the predictive validity of the VRS in an Australian sample. The VRS is routinely employed as a violence risk assessment and treatment allocation tool by Corrections Victoria; as such, it was used in the current study as an indication of risk for future violence. Members of the APB do not routinely consider an offender's VRS score in their decision, however it is included in the file information available to the board. Of 146 offenders in the sample, a pre-treatment total VRS score was available for 142 (97%), and a post-treatment total VRS score was available for 66 (45%). Due to the insufficient number of offenders with a post-treatment total score recorded, the pre-treatment total score was utilised in the current study.

Dependent variables

The dependent variable employed in stage 1 was the outcome of the parole decision. This was a dichotomous variable indicating whether an offender was granted or denied parole at the key parole decision (discussed above). An offender was said to be granted parole if a parole release date was determined at this parole review. The dependent variable used in stage 2 was parole cancellation. This was a dichotomous variable indicating whether an offender's parole order was cancelled following their release from prison and the date this occurred. Refer to Table 1 for further detail regarding the coding of the dependent variables.

Data analysis

The analysis of these data included a bivariate and multivariate analysis of the relationship between the independent variables identified above and the two dependent variables: 1) the outcome of the parole decision and 2) parole cancellation. Chi-square analysis and logistic regression analysis were employed to analyse the bivariate relationships between the independent variables and both dependent variables. Logistic regression analysis was then used to analyse the multivariate relationship between the independent and dependent variables. Cox regression analysis, a form of survival analysis, was also employed to analyse the multivariate relationship between the independent variables and parole completion. A Cox regression model is an appropriate form of analysis as it allows for the prediction of a discrete event, such as parole cancellation, while considering the various release dates and time spent in the community among offenders in the sample. Missing data was addressed by removing cases through a pairwise process from each analysis. Following the data collection process it became evident that the total number of disciplinary incidents, the number of aggressive disciplinary incidents, and the criminal history and offence related variables were positively skewed. Therefore these variables were recoded as categorical variables, as displayed in Table 1.

Results

Sample Characteristics

One hundred and forty six offenders met the criteria for inclusion in the sample of the current study. The mean age of the sample was 33 years ($SD = 8.7$; range = 20 - 70 years). Most were Australian/Caucasian (64.4%), 13.7% were Aboriginal or Torres Strait Islander (ATSI) and 21.9% were categorised as 'Other Ethnicity'. Offenders were

incarcerated following conviction for a range of violent and non-violent index offences including: murder/manslaughter (8.2%, $n = 12$), assault (63%, $n = 92$), sexual assault (1.4%, $n = 2$), robbery (19.2%, $n = 28$), other violent (1.4%, $n = 2$), property-related offences (1.4%, $n = 2$), breach of a community corrections order or a parole order (4.1%, $n = 6$), and other non-violent offences (1.4%, $n = 2$). The majority of the sample had a history of substance abuse (65.4%) and/or alcohol abuse (61%). As can be seen from Table 1, 77.4% of offenders were granted parole and 22.6% were denied parole. Of those who were released on parole, the majority (74.3%) successfully completed their parole order.

Table 1

Descriptive statistics

Variables	Categories	n	%
Demographic variables			
Ethnicity	0 = Australian/Caucasian	94	64.4%
	1 = Aboriginal/Torres Strait Islander	20	13.7%
	2 = Other Ethnicity	32	21.9%
Employment history	0 = Never employed	20	13.7%
	1 = Frequently unemployed	80	54.8%
	2 = Full time employment > 1 year	46	31.5%
History of alcohol abuse	0 = No	55	39.0%
	1 = Yes	86	61.0%
History of drug abuse	0 = No	34	23.6%
	1 = Yes	110	76.4%
Criminal history and offence related variables			
Total prior convictions	0 = 0-20 Prior convictions	51	35.2%
	1 = 21-40 Prior convictions	39	26.9%
	2 = ≥ 41 Prior convictions	55	37.9%
Prior violent convictions	0 = 0 Prior violent convictions	26	17.8%
	1 = 1-5 Prior violent convictions	59	40.4%
	2 = ≥ 6 Prior violent convictions	61	41.8%

Severity of index offence – Cormier-Lang System	0 to 10	47	32.2%
	11 to 20	43	29.5%
	21 to 30	31	21.2%
	≥ 31	25	17.1%
Sentence length	0 = 0 to 2 years	33	22.9%
	1 = 2 to 4 years	38	26 .4%
	2 = 4 to 6 years	42	29.2%
	3 = > 6 years	31	21.5%
Institutional variables			
Total disciplinary incidents	0 = 0 incidents	28	19.2%
	1 = 1-2 incidents	46	31.5%
	2 = 3-9 incidents	48	32.9%
	3 = $\geq$ 10 incidents	24	16.4%
Aggressive disciplinary incidents	0 = 0 incidents	72	49.3%
	1 = 1-2 incidents	47	32.2%
	3 = $\geq$ 3 incidents	27	18.5%
Treatment completion	0 = Did not complete treatment	11	9.7%
	1 = Did complete treatment	71	62.8%
	2 = Not Applicable	31	27.4%
Violence Risk Scale Pre-treatment Risk Category	1 = Low	32	22.5%
	2 = Moderate	72	50.7%
	3 = High	38	26.8%
Parole-related variables			
CCO's recommendations	0 = No/Inconclusive	36	26.7%
	1 = Yes	99	73.3%
Confirmed accommodation	0 = No	23	16.8%
	1 = Yes	114	83.2%
Confirmed employment	0 = No	98	72.1%
	1 = Yes	38	27.9%
Family support	0 = No	23	17.2%
	1 = Yes	111	82.8%
Prior parole cancellation	0 = No	96	66.2%
	1 = Yes	49	33.8%
Dependent variables			
Parole decision outcome	0 = Denied	33	22.6%
	1 = Granted	113	77.4%
Parole cancellation	0 = Parole order not cancelled	104	74.3%
	1 = Parole order cancelled	36	25.7%

Parole Decision

      Bivariate analysis. A bivariate logistic regression analysis revealed that an offender's age at the parole decision was not significantly associated with the outcome of the parole decision, $B(SE)$ = -0.01 (0.02), p = 0.62, OR = 0.99, 95% CI [0.95, 1.03]. In addition, Table 2 illustrates that there was no significant relationship between the outcome of the parole decision and the remaining demographic variables. The results indicated that none of the criminal history or offence-related independent variables measured were significantly associated with the outcome of the parole decision at the bivariate level. Analysis of the institutional variables illustrated that the number of aggressive disciplinary incidents was significantly associated with the outcome of the parole decision. Of the offenders with zero incidents, 88.9% were granted parole, compared to 68.1% of offenders with one to two incidents, and 63% of offenders with three or more incidents. Further, a bivariate logistic regression analysis revealed that the total VRS score measured prior to treatment was significantly associated with the outcome of the parole decision, $B(SE)$ = -0.08 (0.02), p = .001, OR = 0.93, 95% CI [0.88, 0.97]. These findings indicate that as an individual's VRS score increases they are less likely to be granted parole. Of the offenders who completed treatment, 80.3% were granted parole, compared to 54.5% who did not complete treatment, and 64.5% of offenders in the not applicable category. Although, these results indicate that the percentage of offenders who were granted parole is higher for those who completed treatment compared to those who did not complete treatment, the relationship between treatment completion and the outcome of the parole decision was not statistically significant. Analysis of the parole-related independent variables revealed that confirmed accommodation and the CCO's recommendations were significantly associated with the

outcome of the parole decision. Offenders with confirmed accommodation were more likely to be granted parole (84.2%) than those with no confirmed accommodation (65.2%). Of the offenders recommended for release by the CCO, 91.9% were granted parole, compared to 52.8% of offenders who were not recommended for release by the CCO. No significant relationship was found between the dependent variable and confirmed employment or prior parole cancellations.

Table 2

Chi-square analyses for independent variables and the outcome of the parole decision and parole cancellation

Independent variable	*df*	Parole Decision			Parole Cancellation		
		N	χ^2	*V*	*N*	χ^2	*V*
Demographic variables							
Ethnicity	2	146	4.66	0.18	140	4.54	0.18
Employment history	2	146	4.42	0.17	140	1.71	0.11
History of alcohol abuse	1	141	0.13	0.03	135	0.36	0.05
History of drug abuse	1	144	0.70	0.07	138	6.03*	0.21
Criminal history and offence related variables							
Total prior convictions	2	145	2.50	0.13	139	6.59*	0.22
Prior violent convictions	2	146	2.32	0.13	140	5.61	0.20
Severity of Index offence: Cormier Lang	3	146	0.99	0.08	140	0.59	0.07
Sentence length	3	144	4.18	0.17	138	0.95	0.08
Institutional variables							
Total disciplinary incidents	3	146	4.28	0.17	140	0.64	0.07
Aggressive disciplinary incidents	2	146	10.98**	0.27	140	7.17*	0.23
Treatment completion	2	113	4.98	0.21	109	1.84	0.13
Parole-related variables							
CCO's recommendations	1	135	26.81***	0.45	131	4.53*	0.19
Confirmed accommodation	1	137	4.49*	0.18	133	5.08*	0.20
Confirmed employment	1	136	2.17	0.13	132	0.01	0.01
Family support	1	134	1.01	0.09	130	15.29***	0.34
Prior parole cancellation	1	145	1.42	0.10	139	12.17***	0.30

*$p < .05$. **$p < .01$. ***$p < .001$.

Logistic regression analysis. Logistic regression analysis was used to investigate the multivariate relationship between the independent variables that were significantly associated with the outcome of the parole decision at the bivariate level and the dependent variable, the outcome of the parole decision. A review of the Variance Inflation Factor (VIF) and tolerance statistics indicated that multicollinearity was not a problem among this set of variables. The overall model was statistically significant, $\chi^2 = 40.17$ (5), $p < .001$, indicating that the predictors, as a set, reliably distinguished between offenders who were granted and denied parole. The model correctly classified 95.3% of the cases that were granted parole, and 45.8% of cases that were denied parole. The results shown in Table 3 illustrate that the VRS total score and the CCO's recommendations were significant predictors of the outcome of the parole decision. The results reveal a negative relationship between an offender's VRS total score and the outcome of the parole decision; as an individual's VRS score increases they are less likely to be granted parole. A positive relationship emerged between the CCO's recommendations and the outcome of the parole decision. The odds ratio illustrated in Table 3 indicates that if a CCO recommended release on parole, the odds of an offender being granted parole were 8.82 times higher than if a CCO did not recommend release. Aggressive disciplinary incidents and confirmed accommodation were not statistically significant predictors at the multivariate level.

Table 3

Logistic regression analysis of independent variables and the outcome of the parole decision

				95% confidence intervals	
Independent variable	*B*	*SE*	Odds Ratio	Lower	Upper
Aggressive disciplinary incidents					
0 vs. 1-2 incidents	-1.07	0.66	0.34	0.09	1.27
0 vs. ≥ 3 incidents	-0.79	0.77	0.46	0.10	2.06
Violence Risk Scale total score	-0.09	0.03	0.91**	0.85	0.98
CCO's recommendations	2.17	0.59	8.82***	2.78	28.04
Confirmed accommodation	0.09	0.71	1.09	0.27	4.35

N = 130. *p < .05. **p < .01. ***p <.001

Community Corrections Officer's recommendations

The CCO's recommendations emerged as an important predictor of the outcome of the parole decision. Therefore, further analyses were conducted to investigate the factors that significantly predicted these recommendations. The rationale for this further analysis was detailed in the method section.

Bivariate analysis. Chi-square analysis revealed that of the demographic independent variables, employment history was significantly associated with the CCO's recommendations χ^2 (2) = 6.69, *p* = .035, *V* = 0.22. The remaining variables, including age, ethnicity, history of alcohol abuse and history of drug abuse did not have a significant relationship to the CCO's recommendations at the bivariate level. Of the criminal history and offence related variables, prior violent convictions χ^2 (2) = 8.20, p =.017, *V* = 0.25, and sentence length χ^2 (3) = 8.33, *p* = .04, *V* = 0.25 were significantly associated with the CCO's recommendations. Whereas, there was no significant

association displayed between the total prior convictions or severity of index offence and the dependent variable. Analysis of the institutional variables revealed that aggressive disciplinary incidents was significantly associated with the CCO's recommendations χ^2 (2) = 11.48, p = .003, V = 0.29. There was no significant association between the dependent variable, and total disciplinary incidents or treatment completion. Of the parole-related independent variables, confirmed accommodation χ^2 (1) = 14.13, p <.001, V = 0.32 was significantly associated with the CCO's recommendations. Confirmed employment, family support, and prior parole cancellations were not significantly associated with the CCO's recommendations.

Logistic regression analysis. A logistic regression analysis was used to investigate the multivariate relationship between the dependent variable CCO's recommendations, and the independent variables that were significantly associated with the CCO's recommendations at the bivariate level. The VIF and tolerance statistics for this set of variables was reviewed, and on this basis it was determined that multicollinearity was not a problem. The overall model was statistically significant χ^2 = 33.35 (11), p < .001, indicating that the set of predictors reliably distinguished between the cases in which CCOs recommended release and those they did not. The model correctly classified 93.6% of the cases where the CCO recommended release and 44.1% of cases where release was not recommended. The results of the logistic regression displayed in Table 4 indicate that offenders with three or more aggressive disciplinary incidents were significantly less likely to be recommended for release on parole by CCOs than offenders with zero incidents. In addition, offenders with confirmed accommodation were more likely to be recommended for release on parole by CCOs than offenders with no confirmed accommodation. At the multivariate level,

employment history, prior violent convictions, sentence length, and the total VRS score

no longer display a significant relationship with the CCO's recommendations.

Table 4

Logistic regression analysis of independent variables and the CCO's recommendations

Independent variable	*B*	*SE*	Odds Ratio	95% confidence intervals Lower	Upper
Employment history					
Never vs. frequently unemployed	-0.18	0.67	0.84	0.22	3.13
Never vs. full time employment > 1 yr	0.52	0.83	1.68	0.33	8.52
Prior violent convictions					
0 vs.1-5 prior violent convictions	-1.83	1.13	0.16	0.02	1.49
0 vs. ≥ 6 prior violent convictions	-2.06	1.16	0.13	0.01	1.25
Sentence length					
0 to 2 vs. > 2 to 4 years	0.79	0.70	2.22	0.57	8.78
0 to 2 vs. > 4 to 6 years	0.68	0.65	1.98	0.55	7.09
0 to 2 vs. > 6 years	0.16	0.68	1.18	0.31	4.51
Aggressive disciplinary incidents					
0 vs. 1-2 incidents	-0.89	0.58	0.41	0.13	1.27
0 vs. ≥ 3 incidents	-1.58*	0.72	0.21	0.05	0.85
Violence Risk Scale total score	-0.002	0.03	0.99	0.94	1.06
Confirmed accommodation	1.88**	0.59	6.55	2.03	21.15

$N = 128$. *$p < .05$. **$p < .01$. ***$p < .001$.

Parole cancellation

Bivariate analysis. Table 2 illustrates the results of the chi-square analyses

between the categorical independent variables and the dichotomous dependent variable,

parole cancellation. A bivariate logistic regression analysis revealed that an offender's

age at the parole decision was not significantly associated with parole cancellation,

B(SE) = -0.03 (0.02), *p* = 0.23, *OR* = 0.97, 95% CI [0.93, 1.02]. The results of the chi-square analysis revealed that a history of drug abuse was significantly associated with parole cancellation. However, no significant relationship emerged between parole cancellation and the remaining demographic variables. Of the criminal history and offence-related variables, total prior convictions emerged as the only factor significantly associated with parole cancellation. No significant relationship was shown with prior violent convictions, offence severity or sentence length. Of the institutional variables, a bivariate logistic regression analysis revealed that the total VRS score measured prior to treatment was significantly associated with parole cancellation, *B(SE)* = 0.07 (0.02), *p* < .01, *OR* = 1.08, 95% CI [1.03, 1.12]. These findings indicate that as an individual's total VRS score increases they are more likely to have their parole order cancelled. In addition, the results of the chi-square analysis revealed a significant relationship between aggressive disciplinary incidents and parole cancellation; however this was not in the expected direction. The results indicated that offenders with one to two recorded incidents were more likely to have their parole cancelled (40%), compared to offenders with zero (19.7%) and three or more incidents (16.7%). No significant relationship emerged between parole cancellation and the independent variables total disciplinary incidents or treatment completion. Of the parole-related variables, the CCO's recommendations, confirmed accommodation, family support, and prior parole cancellation were significantly associated with parole cancellation. Confirmed employment was not significantly associated with parole cancellation.

Logistic regression analysis. Logistic regression analysis was then used to investigate the multivariate relationship between the dependent variable parole cancellation, and the independent variables that were significantly associated with

parole cancellation at the bivariate level. A review of the VIF and tolerance statistics indicated that multicollinearity was not a problem among this set of variables. The overall model was statistically significant, $\chi^2 = 28.01$ (10), $p = .002$, indicating that the set of predictors reliably distinguished between the offenders who had their parole order cancelled, and offenders who completed their parole order. The model correctly classified 97.8% of the cases of parole completion, and 33.3% of cases of parole cancellation. The results shown in Table 5 indicate that family support emerged as the sole factor that significantly predicted parole cancellation at the multivariate level.

Table 5

Logistic regression analysis of independent variables and parole cancellation

Independent variable	*B*	*SE*	Odds Ratio	95% confidence intervals Lower	Upper
History of drug abuse	0.94	0.75	2.57	0.59	11.12
Prior convictions					
0 to 20 vs. 21 to 40 prior convictions	-0.39	0.73	0.67	0.16	2.81
0 to 20 vs. ≥ 41 prior convictions	-0.37	0.67	0.69	0.19	2.57
Aggressive disciplinary incidents					
0 vs. 1-2 incidents	0.60	0.56	1.83	0.61	5.46
0 vs. ≥ 3 incidents	-1.02	0.93	0.36	0.06	2.24
Violence Risk Scale total score	0.05	0.03	1.05	0.99	1.12
CCO's recommendations	-0.49	0.59	0.61	0.19	1.97
Confirmed accommodation	-0.97	0.69	0.38	0.09	1.49
Family support	-1.44*	0.63	0.24	0.07	0.82
Prior parole cancellation	0.65	0.56	1.91	0.64	5.73

$N = 128$. *$p < .05$.

Survival analysis. In order to take account of the different lengths of time spent on parole among offenders in the sample, a Cox regression model was estimated to investigate the effect of the various independent variables on the timing of parole cancellation. When the independent variables that were significantly related to parole cancellation at the bivariate level were entered into the Cox regression model, the results indicated that the overall model was statistically significant $\chi^2 = 29.734\ (10)$, $p = .001$. However, individually none of the independent variables significantly predicted time to parole cancellation.

Discussion

The present study had two primary aims. The first was to identify the factors considered in the discretionary parole release decisions made by the APB of Victoria utilising a range of variables with established relationships with parole decisions. The second was to identify which factors were subsequently related to an offender's success or failure on parole, as indicated by parole cancellation.

Parole decision

Four variables emerged as significant predictors of the parole decision: aggressive disciplinary incidents, the VRS total score, the CCO's recommendations for release and whether an offender had confirmed accommodation. At the multivariate level, the VRS total score and the CCO's recommendations remained significant predictors. Demographic characteristics and criminal history and offence-related variables were not significant determinants of the parole decision. Therefore, the board's primary considerations appeared to be post-sentencing variables, although the VRS clearly assesses historical factors as well as the presence of dynamic risk factors. This latter finding is somewhat inconsistent with previous research which illustrates that

characteristics such as age (Huebner & Bynum, 2006), criminal history, and the nature and/or severity of an offender's index offence are significant considerations in the parole decision (Morgan & Smith, 2005).

The consideration of an offender's level of risk for future violence, as measured by the VRS, is consistent with previous literature and research findings indicating that the level of risk an offender poses to the community is a primary consideration in the parole decision-making process (Gobeil & Serin, 2010; Hood & Shute, 2000; Meyer, 2001). The importance of the CCO's recommendations was also consistent with previous research that indicated the recommendations provided by custodial staff are significantly associated with the parole decision (Morgan & Smith, 1995; Proctor, 1999). This finding prompted further investigation into the factors that influence the recommendations provided by CCOs, and therefore, may indirectly influence parole decisions. The results showed that confirmed accommodation post-release and no recorded incidents of aggression, as opposed to three or more recorded incidents, significantly increased the likelihood a CCO would support an offender's release on parole. The officers also appeared to consider variables such as employment history, prior violent convictions, sentence length, and VRS score. However these variables were not significant predictors at the multivariate level.

Confirmed accommodation emerged as a practical consideration viewed as important in both recommendations for release from CCOs and members of the board. This is a logical consideration illustrating an awareness of the importance of this basic need amongst parolees. Consistent with previous research the results also indicate that an offender's institutional misbehaviour may influence parole decisions (Carroll et al., 1982; Conley & Zimmerman, 1982; West-Smith et al., 2000). However, this may occur

both directly, at the time of the parole decision, and indirectly, through the recommendations of CCOs. There are two hypotheses for this relationship. The first relates to the historical view that the parole system functions as a form of institutional control by rewarding good behaviour with early release (Proctor & Pease, 2000). The second hypothesis is that aggressive behaviour in prison is seen as an indicator of risk for future violence by members of the board and/or CCOs (Mooney & Daffern, 2011). Conclusions on this issue cannot be drawn from the results of the current study, and it is possible that both processes contribute to the consideration of institutional behaviour in release decision making. It may be useful for subsequent studies to test the aforementioned hypotheses and clarify the nature of the relationship between aggressive institutional behaviour and release decision-making. In addition, the important role played by community corrections staff in the release decision-making process suggests this is an important area for future research attention.

Parole cancellation

The results of the current study suggests that parole cancellation may be linked to an offender's history of antisocial behaviour in the community and in custody (total prior convictions, aggressive disciplinary incidents), their risk for future violence (total VRS score) and their capacity to comply with the conditions of their order (previous parole cancellations and drug abuse). Parole-related variables including the CCO's recommendations, confirmed accommodation and family support also appear to be related to parole cancellation. However, it should be noted that variables such as family support and accommodation were measured prior to release and may be subject to change. The relationship between aggressive disciplinary incidents and parole

cancellation was not in the expected direction. The reason for this finding is unclear, and therefore should be interpreted with caution.

These findings did not support the results of previous research which highlighted the significant relationship between parole completion and an offender's ethnicity (Grattet et al., 2008) or employment in the community (Bahr et al., 2010). However, as employment data was collected prior to an offender's release into the community it is possible that a portion of the sample secured employment at a later date. This may have influenced the accuracy of this finding.

The relationship between parole cancellation and an offender's prior convictions is somewhat consistent with previous research which indicated that the number of prior terms of imprisonment was significantly associated with parole revocation (Grattet et al., 2008) and recidivism (Jones et al., 2006). In addition, a history of antisocial behaviour and a history and/or a current substance use problem are among the major risk/need areas that have been identified for offenders in relation to re-offending (Andrews & Bonta, 2006). Given that the commission of a new criminal offence is a common precursor of parole cancellation, the risk assessment literature is of relevance when interpreting the current findings.

The only variable emerging as a significant predictor in the logistic regression analysis was family support. This suggests an offender's family may play an important role in facilitating parole completion, and is consistent with risk assessment literature that identifies family and marital circumstances as a major area of risk and need in relation to reoffending (Andrews & Bonta, 2006). Influential aspects of these relationships may include the quality of the relationship, the involvement of the family member or spouse in criminal behaviour, and the behaviour that is modelled and

reinforced by families (Andrews & Bonta, 2006). Families may also provide practical support that facilitates re-integration, such as providing transport to appointments and financial assistance as well as encouragement to desist from offending. Given the logistic regression model correctly classified 33% of cases in which parole was cancelled compared to 97.8% of cases of parole completion, it is likely that several key factors linked to parole cancellation were not measured in the current study. This will be discussed later as a direction for future research. In addition, several of the factors utilised were dynamic in nature (e.g. accommodation), and may have been subject to change post-release.

When a survival analysis was conducted taking into account time to parole cancellation, the overall model significantly predicted parole cancellation. However, none of the independent variables in the model significantly predicted parole cancellation.

There is a degree of overlap between the factors that were related to the parole decision and parole completion at the bivariate level in the current study, including the VRS total score, the CCO's recommendations and confirmed accommodation. However, multivariate analysis suggests that parole decisions are more heavily based on an offender's risk of future violence and the recommendations from corrections staff about an offender's suitability for release. Support from family members appeared to be more closely related to parole completion. An offender's capacity to successfully complete parole may be one of multiple considerations of board members, which may account for the contrast between the variables that influence the initial parole decision and subsequent parole cancellation.

Implications

These findings provide valuable feedback to members of the APB regarding the key factors considered in their decision. The factors that may indirectly influence their parole decisions through the recommendations provided by CCOs have also been illustrated. The significant relationship between the CCO's recommendations and parole decision making highlights the need for staff in this role to have adequate training in the assessment of an offender's risk for future criminal behaviour, and an offender's suitability for release and likelihood of completing parole. Currently CCOs in Victoria are provided with procedural guidelines outlining the assessment and reporting-writing process along with relevant factors and documentation that should be reviewed. While there is a degree of structure provided by these guidelines and a locally derived risk assessment measure, the validity of this measure is unclear as is the relative weighting assigned to the factors informing their assessment. Therefore, future research may focus on the empirical analysis of the individual factors and structured tools utilised in this process along with the manner in which CCOs integrate this information to produce their final recommendations regarding an offender's suitability for release. This may promote the validity and consistency of these recommendations. This is supported by previous research indicating that reliance on risk scores produced by explicit and structured decision-making criteria may increase the consistency in recommendations provided by case management officers to the National Parole Board of Canada (Samra-Grewal, Pfeifer & Ogloff, 2000).

These findings also provide members of the board and corrections staff with knowledge of the factors associated with an offender's capacity to successfully

complete parole. These factors highlight areas in which parolees require support and management when re-entering the community and may facilitate release planning.

Limitations

A limitation of the current study was that data collection was conducted largely via a retrospective review of the case files for each offender. Therefore, the information available was limited to that recorded by custodial staff, prison clinicians, and APB staff. When considering variables such as aggressive behaviour in custody, the instances of such behaviour may have been under-reported (Bottoms, 1999). Moreover, criminal history variables were coded from official police records. The tendency for official records of criminal convictions to under-estimate the rates of criminal behaviour has been demonstrated in previous research (Monahan, Steadman, Silver, Appelbaum, Clark Robbins, Mulvey, Roth, Grisso & Banks, 2001). In addition, the current sample was recruited from one Australian state and this may limit the generalizability of these findings to other jurisdictions.

Future directions

Several researchers have described the importance of maintaining a degree of discretion in parole decision making (Petersilia, 2001; Sampson, Gascon, Glen, Louie, & Rosenfeldt, 2007). In support of this view it has been highlighted that parole boards have access to additional information that becomes available post-sentencing relating to institutional behaviour and changes in dynamic risk factors over the course of imprisonment that may be usefully applied when assessing an offenders suitability for release (Petersilia, 2001; Schlager & Robbins, 2008). As opposed to an unstructured discretionary decision-making model, contemporary arguments support the consideration of a more structured decision-making approach informed by variables

empirically linked to recidivism (Gobeil & Serin, 2010; Petersilia, 2001). Gobeil and Serin (2010, p. 254) draw on the body of empirical evidence supporting the use of actuarial approaches to risk assessment, and argue for the implementation of 'actuarially anchored parole decision-making frameworks'. This may improve consistency between decisions and promote procedural fairness in line with recent recommendations made by the Sentencing Advisory Council of Victoria (Sentencing Advisory Council, 2012). Therefore, future research may focus on: 1) further investigation of the factors linked to the outcome of parole decision, and 2) the development of structured decision-making frameworks.

Future research may also examine how factors relating to parole decision-makers impact on the decision-making process. The variables measured in the current study were related specifically to the offender rather than the members of the parole board. Although this is important in understanding what influences parole decisions, variables relating to the decision-makers themselves, including personal characteristics and group dynamics, may also play an important role in the decision-making process (Carroll, 1978; Meyer, 2001). Further research in this area may yield important information about how the outcomes of parole decisions are reached.

Historically, research has focused on identifying risk factors for criminal recidivism and has neglected the study of prisoner re-entry (Bahr, Harris, Fisher & Armstrong, 2010). Further research is required to elucidate the factors that contribute to successful completion of parole and re-integration into the community. There are a range of variables that may be related to parole cancellation that were not measured in the current study. Various post-release factors may have contributed to parole cancellation including level of parole supervision, engagement with support services,

the nature of the parolees' relationship with their CCO, participation in community treatment programs, or ongoing substance use. Further, characteristics of parole officers along with the practical and administrative restraints placed on parole and community correctional authorities may impact on the manner in which a breach of parole is responded to and the decision to cancel an offender's parole order (Grattet et al., 2008). Therefore, in addition to the variables employed in the current study, future research may incorporate these post-release variables.

Conclusion

The present study attempted to fill a gap in the literature by elucidating the factors that influence discretionary parole decisions, and investigating whether these factors were related to an offender's ability to complete their parole order. Given the ongoing use of discretionary decision-making approaches there is a need for further research in the field of parole decision making. Future research may focus on the development of structured guidelines that will facilitate evidence-based decision making, limit potential biases and contribute to consistency between decisions. In addition, further investigation of factors associated with the successful completion of parole will enable parole authorities to better support offenders in key areas of risk and need upon release, and may facilitate the development and delivery of improved methods of community supervision.

References

Ægisdóttir, S., White, M. J., Spengler, P. M., Maugherman, A. A., Anderson, L. A., Cook, R. S., Lampropoulos, G.K., Walker, B. S., & Cohen, G. (2006). The meta-analysis of clinical judgment project: Fifty-six years of accumulated research on clinical versus statistical prediction. *The Counseling Psychologist, 34*, 341–382.

Andrews, D.A. & Bonta, J. (2006). *The Psychology of Criminal Conduct* (4th ed.). Cincinatti, OH: Anderson Publishing.

Baksheev, G.N., Thomas, S.D.M. & J.R. P. Ogloff. (2010). Psychiatric disorders and unmet needs in Australian police cells. *Australian and New Zealand Journal of Psychiatry, 44,* 1043-1051.

Bahr, S.J., Harris,L., Fisher, J.K., & Armstrong, A.H. (2010). Successful Reentry: What Differentiates Successful and Unsuccessful Parolees? *International Journal of Offender Therapy and Comparative Criminology, 54,* 667-692.

Bonham, G., Janeksela, G. & Bardo, J. (1986). Predicting parole decision in Kansas via discriminant analysis. *Journal of Criminal Justice, 14*, 123-133.

Bottoms, A. E. (1999). Interpersonal violence and social order in prisons. *Crime and Justice, 26*, 205–281.

Bureau of Justice Statistics (2011*). Probation and Parole in the United States, 2010*. Washington, DC: U.S. Bureau of Justice Statistics.

Burke, P. & Tonry, M. (2006). *Successful transition and re-entry for safer communities: A call to action for parole*. Silver Spring, MD: Center for Effective Public Policy.

Caplan, J.M. (2007). What Factors Affect Parole: A Review of Empirical Research. *Federal Probation, 71*, 16-19.

Caplan, J.M. & Kinnevy, S.C. (2010). National Surveys of State Paroling Authorities: Models of Service Delivery. *Federal probation, 74*, 34-42.

Carroll, J.S. (1978). Causal Attributions in Expert Parole Decisions. *Journal of Personality and Social Psychology, 36*, 1501-1511.

Carroll, J. S., Weiner, R. L., Coates, D., Galegher, J., & Alibrio, J. J. (1982). Evaluation, Diagnosis, and Prediction in Parole Decision Making. *Law & Society Review, 17,* 199-228.

Carroll, J.S. & Payne, J.W. (1976). The psychology of the parole decision process. In J.S. Carroll & W. Payne (Eds.), *Cognition and social behavior* (pp.13-32). Hillsdale, NJ: Lawrence Erlbaum.

Conley, J.A. & Zimmerman, S.E. (1982). Decision making by a part-time parole board: An observational and empirical study. *Criminal Justice and Behavior, 94*, 396-431.

Dolan, M.D. & Fullam, R. (2007). The validity of the Violence Risk Scale second edition (VRS-2) in a British forensic inpatient sample. *The Journal of Forensic Psychiatry and Psychology, 18*, 381-393.

Gobeil, R., & Serin, R.C. (2009). Preliminary Evidence of Adaptive Decision Making Techniques Used by Parole Board Members. *International Journal of Forensic Mental Health, 8,* 97-104.

Gobeil, R. & Serin, R.C. (2010). Parole decision making. In J.M. Brown & E.A. Campbell (Eds.). *The Cambridge Handbook of Forensic Psychology. Cambridge*: Cambridge University Press.

Gordon, A., & Wong, S. (2009). *The Offence Analogue and Offence Reduction Behaviour Rating Guide*. Unpublished user manual.

Grattet, R., Petersilia, J. & Lin, J. (2008*). Parole Violations and Revocations in California,* Washington D.C.: U.S. Department of Justice. Accessed online at https://www.ncjrs.gov/pdffiles1/nij/grants/224521.pdf.

Gray, M.K., Fields, M. & Maxwell, S.R. (2001). Examining Probation Violations: Who, What, and When. *Crime & Delinquency, 47,* 537-556.

Halsey, M. (2010). Imprisonment and prisoner re-entry in Australia. *Dialectical Anthropology, 34,* 545-554.

Heinz, A. M., Heinz, J. P., Senderowitz, S. J., & Vance, M. A. (1976). Sentencing by Parole Board: An evaluation, *The Journal of Criminal Law and Criminology, 67,* 1-31.

Hood, R., & Shute, S. (2000). *The parole system at work: A study of risk based decision- making*, London: Home Office.

Huebner, B. M., & Bynum, T.S. (2006). An analysis of parole decision making using a sample of sex offender: A focal concerns perspective. *Criminology, 44,* 961-991.

Kinnevy, S.C., & Caplan, J.M. (2008). *Findings from the APAI International Survey of Releasing Authorities* [Research Report]. Philidelphia, PA: Center for Research on Youth & Social Policy.

Jones, C., Hua, J., Donnelly, N., McHutchison, J. & Heggie, K. (2006). Risk of re-offending among parolees. *Crime and Justice Bulletin, 91,* January.

Meyer, J. F. (2001). Strange Science: Subjective Criteria in Parole Decisions, *Journal of Crime and Justice, 24*, 43-70.

Mooney, J.L., & Daffern, M. (2011). Institutional Aggression as a Predictor of Violent Recidivism: Implications for Parole Decision Making. *International Journal of Forensic Mental Health, 10,* 52-63.

Monahan, J. (1981). *The Clinical Prediction of Violent Behavior*. Rockville, Nd, National Institute of Mental Health.

Monahan, J., Steadman, H. J., Silver, E., Appelbaum, P. S., Clark Robbins, P., Mulvey, E. P., Roth, L. H., Grisso, T., & Banks, S. (2001). *Rethinking risk assessment: The MacArthur Study of Mental Disorder and Violence.* New York: Oxford University Press.

Morgan, K.D., & Smith, B. (2005). Parole release decisions revisited: An analysis of parole release decisions for violent inmates in a southeastern state. *Journal of Criminal Justice, 33,* 277-287.

Petersilia, J. (2001). Prisoner re-entry: Public Safety and Reintegration Challenges. *The Prison Journal, 18*, 360-375.

Proctor, J.L. (1999). The 'new parole': An analysis of parole board decision making as a function of eligibility. *Journal of Crime and Justice, 22*, 193-217.

Proctor, J.L, & Pease, M. (2000). Parole as Institutional Control: A Test of Specific Deterrence and Institutional Misconduct. *The Prison Journal*, *80,* 39-55.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk* (2nd ed). Washington, DC: American Psychological Association.

Ross, L. (1977). The intuitive psychologist and his shortcomings. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, p. 173-220). New York: Academic Press.

Samra-Frewal, J., Pfeifer, J.E., & Ogloff, J.R.P. (2000). Recommendations for conditional release suitability: Cognitive biases and consistency in case management officers' decision-making. *Canadian Journal of Criminology, October,* 421 – 447.

Sampson, R., Gascon, S., Glen, O., Louie, C., & Rosenfeldt, S. (2007). *Report of the Correctional Service of Canada Review Panel: A roadmap to strengthening public safety.* Ottawa, ON: Public Safety Canada.

Schlager, M.D. & Robbins, K. (2008). Does Parole Work? Revisited: Reframing the Discussions of the Postprison Supervision on Offender Outcome. *The Prison Journal, 88,* 234-251.

Scott, J. E. (1974). The use of discretion in determining the severity of punishment for incarcerated offenders. *The Journal of Criminal Law and Criminology, 65,* 214-224.

Sentencing Advisory Council (2012, March). *Review of the Victorian Adult Parole System Report.* Melbourne, VIC: Sentencing Advisory Council.

Shinkfield, A.J., & Graffam, J. (2009). Community reintegration of ex-prisoners: Type and degree of change in variables influencing successful reintegration. *International Journal of Offender Therapy and Comparative Criminology, 53,* 29-42.

Steadman, H.J., & Cocozza, J.J. (1974). *Careers of the Criminally Insane: Excessive Social Control of Deviance.* Lexington, MA: Lexington Books.

Tversky, A. & Kahneman, D. (1974). Judgments under uncertainty: Heuristics and biases. *Science, 185,* 1124-1131.

West-Smith, M., Pogrebin, M. R., & Poole, E. D. (2000). Denial of parole: An inmate perspective. *Federal Probation, 64,* 3-10.

Wong, S.C.P. & Gordon, A. (2000). *Manual for the Violence Risk Scale*. Saskatchewan, Canada: University of Saskatchewan.

Wong, S.C.P., & Gordon, A. (2006). The validity and reliability of the Violence Risk Scale: A treatment-friendly violence risk assessment tool. *Psychology, Public Policy, and Law, 12,* 279-309.

CHAPTER FOUR: THE RELATIONSHIP BETWEEN AGGRESSIVE BEHAVIOUR IN PRISON AND VIOLENT OFFENDING FOLLOWING RELEASE

Preamble to empirical paper

Chapter four presents the second empirical study of the thesis. Previous research has demonstrated that aggressive misconduct during imprisonment influences parole release decisions, which was partially supported by the first study of the thesis. However, research examining the link between aggressive misconduct and violent recidivism is limited, particularly in populations of adult violent offenders. Moreover, there are several issues that warrant consideration when interpreting aggressive misconduct as an indication of risk for future violence. The aim of the second study is to identify whether aggression in prison is significantly associated to violent recidivism following release into the community, when controlling for violence risk as measured by the Violence Risk Scale (VRS; Wong & Gordon, 2000). This paper has been submitted to a peer-reviewed journal.

Monash University

Declaration for thesis chapter four

Declaration by candidate

In the case of chapter four, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Literature review, study design, data collection and analysis and preparation of paper	80%

The following co-authors contributed to the work:

Name	Nature of contribution	Extent of contribution (%)
A/Prof Michael Daffern	General supervisory input, review and editing of paper drafts.	20%

Candidate's signature: Date:

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
(4) there are no other authors of the publication according to these criteria;
(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

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Signature 1:   Date:

The relationship between aggressive behaviour in prison and violent offending following release

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Abstract

Aggression during incarceration impacts parole release decisions. However, research examining the link between aggressive behaviour in custody and violence post-release is limited, particularly in relation to adult violent offenders. Several factors complicate the use of institutional aggression as a marker of risk for future violence, including environmental causes of aggressive behaviour and adaptation to prison. This study explored the association between aggressive behaviour in prison and violent recidivism post-release in a sample of 148 adult male violent offenders. Results showed that subjects with three or more aggressive incidents recorded in prison incurred a violent charge more often and sooner after release than those with no aggressive incidents, when controlling for age, ethnicity, sentence length and risk for future violence. Subjects with one or two aggressive incidents were not at increased risk of violent recidivism. These findings suggest that institutional aggression can be used to identify individuals at risk of violence following release but only when repeated aggressive behaviour is evident. Importantly, some prisoners who were not aggressive in prison were charged with violent offences post-release and some prisoners with three or more aggressive incidents were not violent following release, highlighting the complexity of using in-prison aggression as a marker for violent recidivism.

KEY WORDS: Aggression, Prison, Violent Offenders, Violence Risk, Recidivism.

The relationship between aggressive behaviour in prison and violent offending

following release

Institutional behaviour, including general and aggressive misconduct, influences the decision to release an offender on parole (Carroll, Weiner, Coates, Galegher & Alibrio, 1982; Huebner & Bynum, 2006; Kinnevy & Caplan, 2008; Mooney & Daffern, 2011). Extant research indicates a significant relationship between misconduct in the prison environment and violent behaviour following release (Heil, Harrison, English, & Ahlmeyer, 2009; Lattimore, Visher, & Linster, 1995) although the strength of this relationship varies (Trulson, DeLisi, & Marquart, 2011). Environmental factors that cause or suppress aggressive behaviour (Cunningham & Sorenson, 2007) and the tendency for offenders to adapt to the prison environment (Zamble, 1992) with a concomitant reduction in aggression and other misbehaviour, should be considered when determining the relevance of any individual's in-prison aggression to pre-release violence risk assessments. Further investigation into the relationship between institutional misconduct and violent recidivism is necessary to ensure accurate risk appraisal and valid release decisions. This study examines the relationship between aggressive misconduct in prison and violent behaviour following release from prison in a sample of violent offenders.

Background

The correlates of violent recidivism in offenders have long been studied (Gendreau, Little & Goggin, 1996; Lattimore et al., 1995). Numerous static and dynamic risk factors that have been linked to general and violent recidivism have been elucidated; these include age at first offence, antisocial personality characteristics and attitudes, substance use, family/martial relationships, difficulties in the areas of

education and employment, and a lack of prosocial recreational activities (Andrews & Bonta, 2006). A history of aggressive or violent behaviour has been identified as an important predictor of future violence (Andrews & Bonta, 2006; Gendreau et al., 1996; Lattimore et al., 1995). However, within this large body of research the focus is often on historical and pre-incarceration measures of offender behaviour, such as previous convictions, with less attention paid to the association between aggressive behaviour within the prison environment and violent recidivism following release (Trulson et al., 2011). Institutional behaviour may provide a useful source of information relating to an offender's level of risk that is not captured by variables measured pre-incarceration, given it is generally the most recent record of behaviour for offenders and such records are readily available to risk assessors (Trulson et al., 2011; Cochran, Mears, Bales, & Stewart, 2012). This is particularly important for offenders incarcerated for lengthy periods.

Existing research indicates a significant relationship between institutional misconduct and recidivism following release (Gottfredson & Adams, 1982; Heil, Harrison, English, & Ahlmeyer, 2009; Lattimore et al., 1995). In a cohort of young offenders in California, Lattimore and colleagues (1995) identified criminal history, institutional misconduct, and variables related to personal history as the key predictive factors for rearrest for a violent offence following release from custody. General misconduct, threats, and other aggressive acts in custody all increased an offender's risk of rearrest, particularly for violent offences. Similarly, Trulson and colleagues (2011) examined rearrest frequency in a sample of 1,804 violent male offenders released from a juvenile correction facility. They found a significant association between the total number of institutional infractions and the frequency of re-arrest; however, this

relationship was weak and related to general rather than violent recidivism. Furthermore, when specific types of misconduct were examined (e.g. staff assaults, youth assaults and possession of weapon) none predicted re-arrest. The authors concluded that these findings provide limited support for institutional misconduct as a useful predictor of post-release recidivism (Trulson et al., 2011).

Limited research has examined the relationship between institutional misconduct and violent recidivism post-release in adult offenders. Cochran and colleagues (2012) investigated the association between prison misconduct and recidivism, comparing a cohort of youth and adult offenders released from correctional facilities in Florida. They found that misconduct was significantly related to an offender's likelihood of reconviction in the adult sample. The results also indicated that violent misconduct showed a stronger association with general and violent recidivism when compared to all recorded misconduct (e.g. violence, noncompliance, or possession of contraband). However, there was no significant relationship observed in the sample of youth offenders, in contrast to the findings of Lattimore and colleagues (1995). Further, a study of sexual misconduct in prison, which is often characterised by violence, found that offenders who engaged in sexual misconduct in prison were significantly more likely to be arrested for a violent offence post-release (Heil et al., 2009).

Research investigating the factors associated with institutional misconduct and the utility of treatment programs aimed at reducing misconduct are of relevance when considering the relationship between institutional aggression and violent recidivism (Cunningham & Sorensen, 2007; French & Gendreau, 2006; Gendreau, Goggin, & Law, 1997). A meta-analysis assessing the effectiveness of correctional treatment in reducing institutional misconduct found that programs leading to the greatest reductions in prison

misconduct also led to greater reductions in recidivism rates (French & Gendreau, 2006), providing support for the notion that institutional misconduct is 'a reasonable proxy for antisocial behaviour in the community' (French & Gendreau, 2006, p. 210). Furthermore, a meta-analysis examining the predictors of prison misconduct found that the predictive factors (e.g. criminal history variables and antisocial attitudes), along with the strength of their relationship with misconduct, corresponded closely to those identified in studies examining predictors of recidivism (Gendreau et al., 1997).

Bottoms (1999) described violence within prisons as the product of an interaction between individual characteristics, environmental factors related to the prison environment, and interpersonal interactions with prison staff and fellow prisoners. This view is supported by researchers who have investigated factors linked to institutional misconduct (Cunningham & Sorensen, 2007; Gendreau, Goggin, & Law, 1997), and is consistent with contemporary models of aggressive behaviour (General Aggression Model, GAM; Bushman & Anderson, 2001). Therefore, the nature of the prison environment and the manner in which environmental factors may promote or suppress an offender's behaviour warrants consideration. Previous research has investigated the manner in which custodial contexts may serve to trigger aggressive behaviour, with factors such as prison crowding (Porporino, 1986), the age and level of risk of prisoners (Gendreau et al., 1997), and particular locations within prison compounds (Steinke, 1991). Further, Jones (2004) argues that the prison environment may alter or suppress the expression of aggressive behaviour. This may occur through the absence of typical triggers for aggression that may have been present in the community (e.g. conflict with intimates) (Jones, 2004; Daffern, Jones, Howells, Shine, Mikton, & Turnbridge, 2007) or the development of skills and strategies to prevent the

detection of misconduct by custodial staff (see discussion of Detection Evasion Skills by Jones, 2004).

The process through which offenders may adapt to the prison environment over the course of their sentence may also lead to reductions in aggressive misconduct. In a longitudinal study of long-term incarcerated offenders, Zamble (1992) found evidence of reduced emotional distress (e.g. depression and anxiety), reduced social contact with other prisoners, and decreased rates of misconduct over the course of their prison sentence. It was suggested that the reduced social contact may be attributed to an attempt by offenders to limit the likelihood of becoming involved in a dispute or other problematic behaviour with fellow prisoners. Further, the reduced rates of misconduct may have resulted from an effort to avoid the negative consequences of such behaviour. These reductions in distress and antisocial behaviour were viewed as an indication of adaptation to the prison environment. Further, research has suggested that offenders incarcerated for long-term periods may exhibit reduced rates of misconduct compared to offenders with short-term sentences (Flanagan, 1980; Cunningham & Sorenson, 2007). However, Flanagan (1980) observed lower rates of misconduct in those with long-term sentences from the commencement of their prison sentence rather than a reduction in misconduct over time, in contrast to the findings of Zamble (1992).

These issues highlight the manner in which the institutional environment may influence the expression of an offender's aggressive behaviour and illustrates the importance of considering such processes when using institutional aggression as a marker for an individual's risk for future violence in the community. This has implications for release decision makers and clinicians who conduct risk assessments in

custodial environments, and prompts further investigation into the relationship between aggressive misconduct and violent recidivism.

The current study

The current study endeavours to build on the existing body of research examining the association between aggressive institutional behaviour and violent recidivism following release. To date, institutional aggression has been the focus of limited research compared to variables measured pre-incarceration and the results of this research have been mixed. Further, no known research has examined the relevance of aggression in custody to recidivism following release while controlling for violence risk, as measured by contemporary valid risk assessment instruments. This has also been highlighted as an area requiring further research attention due to the consideration of institutional behaviour in release decision making (Mooney & Daffern, 2011). As such, the current study aims to investigate whether aggressive misconduct in prison predicts violent criminal charges post-release in a population of adult male violent offenders. This relationship will be explored while controlling for the effects of risk for future violence as measured by the Violence Risk Scale (VRS; Wong & Gordon, 2000) and other key variables that may be related to risk and are not otherwise captured by the VRS, including age at the time of release and ethnicity. Age at the time of assessment is included in the VRS; however, it is measured categorically, and the VRS assessment may have occurred years prior to release. Therefore, a continuous measure of age at the time of release was included in the set of independent variables given its empirical link to violence (Gendreau, Little & Goggin, 1996). Sentence length will also be included in data analyses to control for its effects on the number of incidents of misconduct accrued by offenders in the sample.

Method

Subjects

The sample comprised adult male prisoners sentenced to a term of imprisonment in Victoria, Australia. A portion of their sentence was served at one of two medium (Marngoneet and Loddon) or one high (Barwon) secure correctional centres. Subjects had been assessed in prison using the Violence Risk Scale (Wong & Gordon, 2000), a violence risk assessment tool utilised by Corrections Victoria to identify offenders' level of risk for future violence and treatment needs. Offenders in the sample were referred for a violence risk assessment following their entry into one of Victoria's prisons on the basis of either: a history of violent convictions, a violent index offence, and/or the risk rating resulting from the completion of a locally derived screening measure, the Victorian Intervention Screening and Assessment Tool (VISAT). The VISAT is an unvalidated structured risk assessment tool that yields a risk rating on several domains, including violence; a referral for a violence risk assessment is based on review of the violence domain.

Sources of information and data collection procedure

Data relating to demographic variables, an offender's prior criminal behaviour and behaviour during incarceration (aggressive misconduct) was collected retrospectively through file review. The set of case files reviewed for each offender included the Clinical Service file (containing clinical documentation relating to the assessment and treatment of the offender) and the Individual Management Plan file (containing sentencing documentation, official criminal history records, records of institutional misconduct and prison case management documentation). These files were provided by Corrections Victoria. The Adult Parole Board file (containing parole-

related documentation, along with sentencing documentation, official criminal history records, and records of institutional misconduct) was also reviewed. Data collection was completed by two doctoral students. The Kappa and Intraclass Correlation Coefficients (ICC) for all items were significant at $p < .01$ (except for one coefficient that was significant at $p = .02$). The average measure ICC for continuous variables was 0.94, and the average Cohen's Kappa for nominal variables was 0.76; showing moderate to substantial agreement.

Follow-up data pertaining to violent charges incurred following release was accessed via official Victoria Police records. The follow-up period ranged from their date of release (no later than 1 August, 2010) until the end of the follow-up period, 16 March 2012. The length of the follow-up period ranged from 19 months (1.6 years) to 68 months (5.6 years), with a mean of 44 months (3.6 years). The following variables were included in the file review protocol:

Demographic variables. Ethnicity was recorded and classified according to three categories: Australian/Caucasian, Aboriginal or Torres Strait Islander and Other Ethnicity. Age at commencement of prison sentence and age at the time of release were recorded as continuous variables. These variables were coded from case file documentation.

Index offence and sentence length. The index offence leading to the current sentence of imprisonment was recorded for each offender and coded under the relevant category: murder/manslaughter, assault (including recklessly/intentionally and/or negligently causing serious injury), sexual assault, robbery (including armed robbery, aggravated burglary), other violent offences (including kidnapping, unlawful imprisonment, threaten to kill), drug-related offences (including trafficking,

possession/cultivation of substances), property-related offences (including criminal/property damage, burglary, theft), breach of parole/community-based order, and other non-violent offences (including handle/receive stolen goods, obtain property/financial advantage by deception, possession of a weapon). If the index offence consisted of more than one type of offence, the more severe offence type was coded. For this purpose, offence severity was determined using the National Offence Index (NOI; Australian Bureau of Statistics, 2009). The length of the current sentence was recorded to allow analysis of the relationship between this variable and an offender's rate of aggressive misconduct.

Aggressive misconduct. Official records of misconduct (incident reports) produced from Corrections Victoria's Prison Information Management System (PIMS) electronic database and contained in the IMP and/or APB files were reviewed for each offender. The number of separate incidents of misconduct was recorded, along with a description of the incident as reported in the PIMS incident report. This was used to categorise the incident into one of the following types: general misconduct (including all types of misconduct e.g. noncompliance, drug-related incidents, sexual-based incidents, aggressive incidents and physical violence); other aggressive misconduct (aggressive behaviour that did not involve physical contact with another person e.g. verbal abuse and property damage); and violent misconduct (including acts of aggression involving physical contact with another person e.g. assault of another prisoner or prison officer). Misconduct coded in the general misconduct category was excluded from analyses in the current study.

Violent recidivism. The number of charges recorded for each offender following their release from prison, the dates of each charge, and the type of offence for

which the offender was charged (e.g. assault) was recorded. Offence types were then categorised into violent and non-violent offences. Offences categorised as violent included: murder/manslaughter, assault, sexual assault, robbery, and other violent offences (see above).

Measures

Violence Risk Scale. The Violence Risk Scale (VRS; Wong & Gordon, 2000) is 26-item structured professional judgement measure designed to assess risk for future violence. It contains six static and twenty dynamic factors, and may be administered pre and post treatment to allow change on the dynamic risk factors to be monitored. Previous research has revealed the VRS is a valid predictor of institutional violence in a British forensic inpatient sample (Dolan & Fullam, 2007), and violent and non-violent recidivism in a sample of adult male offenders in Canada (Wong & Gordon, 2006). The VRS is utilised by Corrections Victoria to assess risk for future violence and suitability for a violence treatment program among incarcerated offenders. As such, it was employed as a measure of risk for future violence in the current study. A pre-treatment VRS score was available for 143 offenders in the sample (96.6%), and a post-treatment VRS score was available for 67 offenders in the sample (45.3%). Given the insufficient availability of the post-treatment VRS scores, the pre-treatment scores were used in the current study. The VRS total score was recorded as both a continuous variable and a categorical variable depicting the risk categories: low, moderate and high. The continuous variable was used in the data analyses for the current study.

Data analysis

The first stage of data analysis describes the offenders who engaged in aggressive misconduct in prison with regard to demographic characteristics, sentence

length, and level of violence risk. Chi-square analyses and one-way between groups analysis of variance (ANOVA) will be utilised.

The second stage of the data analysis process will examine the relationship between aggressive misconduct and violent charges, while controlling for violence risk as measured by the VRS. The relationship between other key demographic characteristics (age at the time of release and ethnicity) that are not incorporated within the VRS will also be examined. If these factors are significantly associated with violent charges at the bivariate level they will be included in subsequent multivariate analysis. Cox regression analysis, a form of survival analysis, will be used to explore these bivariate and multivariate relationships. This is an appropriate method of data analysis as it allows for the prediction of time to violent charge, and considers the varied periods of time each offender has spent in the community post-release.

Results

Sample characteristics

The sample comprised 148 male offenders with a mean age of 31 years ($SD = 8.2$ years, range $= 18 - 56$ years) at the commencement of their prison sentence. All subjects had at least one prior violent conviction recorded and/or a violent index offence leading to their current term of imprisonment. Most were Australian/Caucasian (64.2%), 13.5% were Aboriginal or Torres Strait Islander, and 22.3% were categorised as 'other ethnicity'. Offenders were incarcerated for a range of violent and non-violent index offences including murder/manslaughter (8.1%), assault (63.5%), sexual assault (1.4%), robbery (18.9%), other violent offences (1.4%), property-related offences (1.4%), drug-related offences (0%), breach of parole/community-based order (4.1%), and other non-violent offences (1.4%). The mean sentence (measured from the date of prison entry to

the date of release from prison) was 1689 days; approximately four and a half years (*SD* = 1219 days) with a minimum sentence length of 53 days and maximum of 7980 days (approximately 22 years). This variable was positively skewed and was recoded into a categorical variable for use in subsequent analyses (see Table 1). The pre-treatment VRS total scores ranged from 13 to 65, with a mean score of 41.51 (*SD* = 10.32) which falls within the moderate range in relation to risk for future violence.

Table 1

Descriptive statistics

Variables	Categories	*n*	Percentage
Ethnicity	0 = Australian/Caucasian	95	64.2%
	1 = Aboriginal/Torres Strait Islander (ATSI)	20	13.5%
	2 = Other Ethnicity	33	22.3%
Institutional variables			
Sentence length	0 = 0 to 2 years	33	22.6%
	1 = 2 to 4 years	39	26.7%
	2 = 4 to 6 years	43	29.5%
	3 = > 6 years	31	21.2%
Aggressive misconduct	0 = 0 incidents	73	49.7%
	1 = 1-2 incidents	47	32%
	2 = ≥ 3 incidents	27	18.4%
No. of Aggressive misconduct per year	0 = < 1 incident per year	122	83.4%
	1 = ≥ 1 incident per year	26	17.6%
VRS Pre-treatment risk category	1 = Low	32	22.2%
	2 = Moderate	74	51.4%
	3 = High	38	26.4%
Violent Recidivism			
Violent charge	0 = No charge	95	65.1%
	1 = ≥ 1 charge	51	34.9%

Aggressive misconduct

During their incarceration, 25.9% of the sample engaged in one or more physically violent act(s) (i.e. assault of a prison officer or fellow prisoner), 40.1% of the sample were involved in one or more aggressive act(s) not including physical violence (i.e. verbal abuse or property damage). For the purpose of the current study physical violence and other aggressive acts were combined to produce a single variable, 'aggressive misconduct'. The total number of incidents of aggressive misconduct was positively skewed; therefore a categorical variable was used for data analysis (depicted in Table 1). Following an inspection of the frequency of aggressive misconduct across the sample, it was deemed suitable to employ the following categories: no incidents, one to two aggressive incidents and three or more aggressive incidents. Using this composite of aggressive behaviour 32% of the sample had one or two incidents of aggressive misconduct recorded during their imprisonment and 18.4% had three or more recorded incidents of aggressive misconduct. A one-way between-groups ANOVA revealed no significant difference between the mean age at the time of imprisonment for offenders in each category of aggressive misconduct (no incidents, one to two incidents and three or more incidents). Chi-square analysis illustrated that the relationship between ethnicity and aggressive misconduct approached but was not statistically significant, $\chi^2 = 3.09$ (4), $p = 0.54$, $V = 0.10$.

The relationship between an offender's VRS total score and aggressive misconduct was explored using a one-way between-groups ANOVA. There was a statistically significant difference in offenders' mean VRS total scores across the three categories of aggressive misconduct. The effect size calculated using η^2 was 0.08, suggesting a medium effect. Post-hoc comparisons using the Tukey HSD test indicated

that the mean VRS score for those with no incidents ($M = 38.63$, $SD = 10.11$) was significantly different from those with one to two incidents ($M = 44.10$, $SD = 9.18$), and those with three or more incidents ($M = 45.09$, $SD = 10.97$). However, there was no significant difference between the mean VRS scores for offenders in the one to two incident and three or more incident categories.

In order to examine the relationship between sentence length and the frequency of aggressive misconduct, a variable was calculated depicting the number of incidents of aggressive misconduct per year for each offender (rate of aggressive misconduct). The continuous version of this variable was positively skewed ($M = 0.51$, $SD = 0.95$, range = $0 - 7.52$). Due to the low rate of aggressive misconduct observed in the sample, a dichotomous version of this variable was used to examine its association with sentence length (see Table 1). Chi-square analysis revealed no significant association between sentence length and the rate of institutional aggression.

Aggressive misconduct and violent recidivism

During the follow-up period 34.9% of offenders in the sample were charged with a violent offence. Chi-square analysis revealed a significant bivariate relationship between aggressive misconduct and violent recidivism, $\chi^2 = 9.55$ (2), $p = .008$, $V = 0.26$; however, the effect size was small. Of the offenders with no aggressive misconduct recorded, 26% ($n = 19$) incurred a violent charge following release compared to 35.6% ($n = 16$) with one to two incidents of aggressive misconduct, and 59.3% ($n = 16$) of offenders with three or more recorded incidents. A bivariate Cox regression analysis was also conducted to examine the relationship between aggressive misconduct and time to violent charge. This analysis revealed that aggressive misconduct was significantly associated with time to violent charge, $\chi^2 = 10.55$ (2), $p =$

.005, with offenders who engaged in three or more aggressive incidents incurring a violent charge sooner than offenders with no recorded incidents, *B(SE)* = 1.06 (0.34), *p* = .002, *OR* = 2.89, 95% CI [1.49, 5.64].

A series of additional bivariate Cox regression analyses were conducted utilising the following independent variables: age at time of release, ethnicity, sentence length, and the VRS total score, to establish whether these variables were significantly associated with time to violent charge and should therefore be controlled for in the subsequent multivariate analysis. The findings indicated that the relationship between age at the time of release and time to violent charge approached but did not reach statistical significance, χ^2 = 3.67 (1), *p* = .055; *B(SE)* = -0.03 (0.18), *p* = .056, *OR* = 0.97, 95% CI [0.93, 1.00]. Ethnicity was shown to significantly predict time to violent charge, χ^2 = 6.21 (2), *p* = .045. Offenders of ATSI ethnicity received a violent charge sooner than those in the other ethnicity category, *B(SE)* = -1.13 (0.48), *p* = .019, *OR* = .32, 95% CI [0.13, 0.83]. When offenders of ATSI ethnicity were compared to those of Australian/Caucasian ethnicity, the finding appeared to follow a similar trend, *B(SE)* = -0.62 (0.35), *p* = .074, *OR* = .54, 95% CI [0.27, 1.06], however this finding was not statistically significant. VRS total score significantly predicted time to violent charge χ^2 = 9.50 (1), *p* = .002. As an offender's VRS score increased, they tended to reoffend sooner, *B(SE)* =0 .05 (0.02), *p* = .002, *OR* = 1.05, 95% CI [1.02, 1.08]. When sentence length was examined, no significant relationship emerged with time to violent charge.

Based on these findings all of the aforementioned variables were included in multivariate analysis. Although sentence length was not significantly associated with time to violent charge, it was included given the importance of controlling for the length

of time an offender spent in prison when examining aggressive misconduct as a predictor of time to violent charge.

Multivariate survival analysis

A Cox regression model was estimated to investigate the effect of aggressive misconduct on the time to violent charge post-release, while controlling for the effect of an offender's age at the time of release, ethnicity, VRS total score and sentence length. The results of the Cox regression analysis are illustrated in Table 2.

The overall model was statistically significant χ^2 = 21.39 (9), p = .011. Offenders with three or more aggressive incidents were charged with a violent offence 2.82 times faster compared to offenders with no aggressive incidents. This finding was statistically significant. There was no significant difference in the time to violent charge between offenders with no aggressive incidents and those with one to two aggressive incidents. The VRS, age at time of release and ethnicity did not independently emerge as significant predictors of time to violent charge in this analysis. With regard to sentence length, offenders with sentences of 0 to two years appeared to reoffend sooner than offenders with sentences of six or more years. This difference approached statistical significance. Figure 1 illustrates the Cox regression curve depicting the time to violent charge between the three categories of the independent variable, aggressive misconduct, while holding the effect of age at the time of release, ethnicity, the VRS total score and sentence length constant.

Table 2

Cox Regression analysis of aggressive misconduct, VRS total score, ethnicity, age and time to violent charge

Independent variable	*B*	*SE*	*p*	Odds Ratio	95% confidence intervals	
					Lower	Upper
Age	-0.02	0.02	.417	0.98	0.95	1.02
Ethnicity						
ATSI vs. Australian/Caucasian	-0.22	0.42	.604	0.81	0.35	1.83
ATSI vs. Other Ethnicity	-0.29	0.53	.589	0.75	0.26	2.13
VRS total score	0.03	0.02	.099	1.03	0.99	1.07
Sentence Length						
0 to 2 years vs. 2 to 4 years	-0.35	0.40	.383	0.70	0.32	1.55
0 to 2 years vs. 4 to 6 years	-0.28	0.41	.492	0.76	0.34	1.68
0 to 2 years vs. $\geq$ 6 years	-1.02	0.54	.057	0.36	0.13	1.03
Aggressive disciplinary incidents						
0 vs. 1-2 incidents	0.28	0.38	.459	1.33	0.63	2.80
0 vs. $\geq$ 3 incidents	1.04	0.40	.010	2.82	1.28	6.19

$N = 136$

Figure 1

Aggressive misconduct and time to violent charge
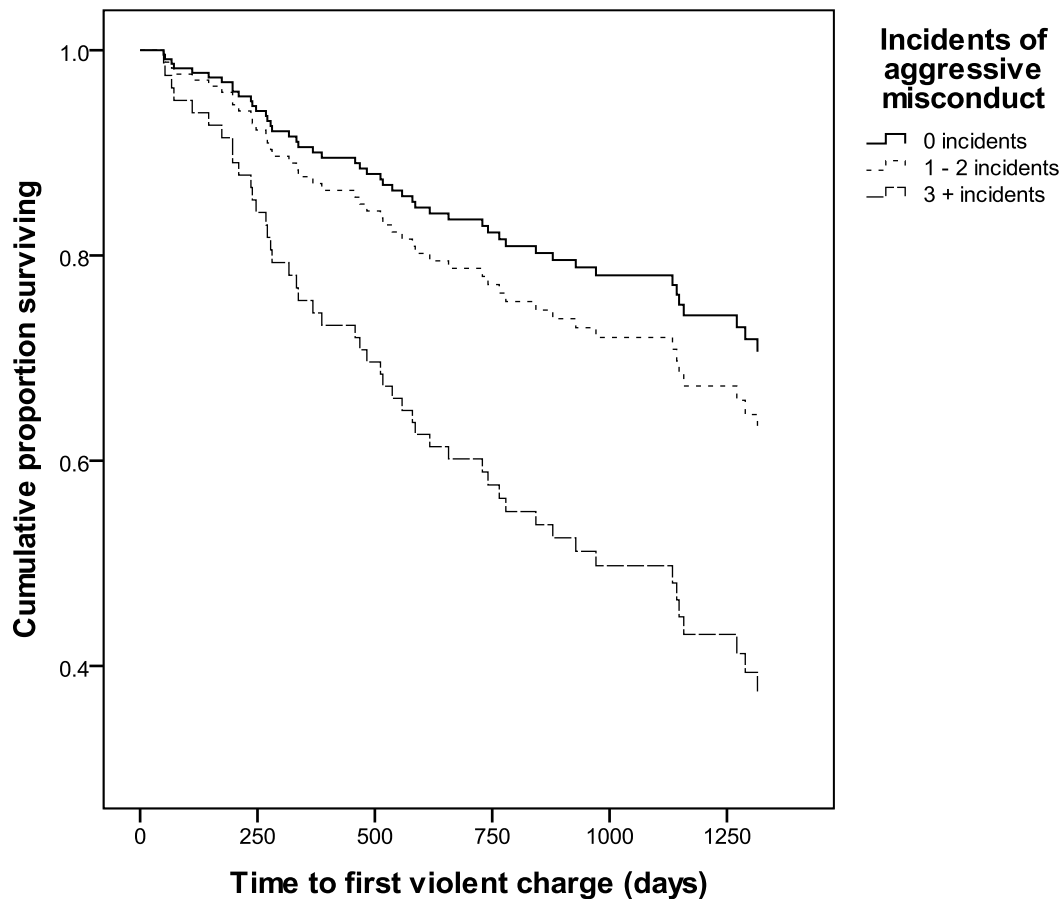
Discussion

The aim of this study was to investigate the relationship between aggressive behaviour in prison and violent offending following release in a violent offender population. An important finding was that aggressive misconduct was significantly associated with time to being charged with a violent offence following release into the community; this finding remained significant when controlling for the effect of risk for future violence, sentence length, ethnicity, and age at time of release. These results are consistent with previous research that has identified a significant relationship between

misconduct and recidivism in adult offenders (Cochran et al. 2012; Heil et al., 2009), and lends support to the view that institutional aggression may be viewed as a proxy for future violence (French & Gendreau, 2006). Further, this result highlights that recorded aggressive behaviour in custody is uniquely associated with violent recidivism beyond formal risk assessment measurement (though it should be noted that institutional aggression is considered in reappraisals of violence risk in the VRS). This suggests that official records of aggressive behaviour may be a useful source of information regarding an offender's risk for future violence and may supplement risk judgements produced using formal risk assessment tools. Specifically, the findings indicated that offenders who engaged in three or more incidents of aggressive misconduct during their period of imprisonment received a violent charge sooner than those with no recorded incidents of aggression. However, there was no significant difference observed between offenders with no recorded aggressive incidents, or those with one or two recorded incidents. Therefore, it appears to be the offenders who engage in repeated aggressive acts in prison who reoffend violently sooner.

The aforementioned findings suggest that recurrent aggressive misconduct may be a meaningful indicator of an offender's propensity for violence post-release; however, the results revealed some exceptions that warrant discussion. Firstly, a considerable percentage of offenders who were aggressive on three or more occasions in custody (40.7%) were not charged with a violent offence following release from prison during the follow-up period. A possible explanation for this finding relates to the nature of aggression and violence, that it is a product of individual characteristics and environmental factors that may trigger or provoke aggression. As discussed previously, several physical and social aspects of the prison environment may increase the

likelihood of aggressive behaviour among offenders (Bottoms, 1999), including the often conflicted relationship between custodial staff and prisoners, the composition of the prison population (e.g. the age and risk level of prisoners; Gendreau et al., 1997), prison crowding (Porporino, 1986; Lahm, 2008) and the physical locations or architecture of the prison (Steinke, 1991). Therefore, aggressive misconduct may not be a valid indicator of an ongoing propensity for violence within this group of offenders, but rather a product of the demands of the institutional environment. An alternative explanation is that these individuals did engage in violent behaviour following release yet avoided detection (Jones, 2004); official records of recidivism have been known to under-report incidents of violence in the community (Monahan, Steadman, Silver, Appelbaum, Clark Robbins, Mulvey, Roth, Grisso & Banks, 2001). Secondly, a percentage of offenders with no recorded aggression in prison (26%) were charged with a violent offence following release from prison. It is also possible that for this group of offenders, the prototypical antecedents to their aggressive behaviour were not present within the prison context (e.g. typical victims) or the constraints of the prison environment served to mute or alter their aggressive behaviour (e.g., higher levels of supervision and restriction on behaviour) (Jones, 2004; Daffern, Jones, Howells, Shine, Mikton & Turnbridge, 2007).

Implications

The results of this study hold important implications for professionals involved in the task of assessing risk and planning treatment, and for release decision makers in correctional contexts. According to the results of this study, aggressive behaviour in the custodial environment may be a useful source of information to draw on when assessing risk for future violence and for determining treatment need over and above structured

violence risk instruments. Specifically, it appears offenders who engage in repeated acts of aggression in prison are at an increased risk for violence in the community, and excessive weight should not necessarily be attributed to infrequent acts of aggression. Although, an analysis of each individual's aggressive behaviour (and absence of aggression for those with a history of violent offending), including the elucidation of the factors contributing to their aggressive behaviour in the community and in prison, should be considered. Increased aggression within the prison environment may also serve as an indication of a treatment need within the offender, and may prompt an assessment to determine an appropriate evidence-based intervention. Information regarding an offender's institutional behaviour may also be usefully communicated to community correctional staff charged with the task of supervising the offender within the community (McDougall, Pearson, Willoughby & Bowles, 2012).

Limitations

There are several limitations related to the current study that should be noted. The first relates to the use of official records of misconduct and violent charges. Previous research has noted the tendency for official records to under-estimate the rates of both institutional misconduct (Bottoms, 1999) and offending within the community (Monahan et al., 2001). The retrospective use of official records of aggressive and violent behaviour provided limited information regarding the nature and/or context of the misconduct. This prevented elucidation of the interaction and relative importance of environmental and individual determinants of aggressive behaviour, along with the consideration of whether certain factors influenced the strength of the relationship between misconduct and recidivism (e.g. the severity of the aggressive act). Secondly, the current study utilised a sample drawn from one Australian state, which may limit the

generalizability of these findings to other jurisdictions. Certainly, the use of three or more aggressive incidents has been shown through this study to be a valid predictor of violent recidivism in Victoria, Australia; this would not necessarily be a valid risk marker in other jurisdictions.

The use of pre-treatment VRS risk ratings presents a further limitation, given that this measure contains a series of dynamic risk factors that by definition may change over time and require re-assessment. The use of post-treatment VRS scores rated closer to the time of release may have provided a more accurate portrayal of the level of risk for offenders in the sample at the time of release.

Future directions

Given the relationship between aggression in custody and violent reoffending in the community has received limited research attention and the current study utilised a sample from one Australian state, it is important for similar research to be conducted in other jurisdictions to establish whether these findings generalise. The identification of increased levels of aggression in custody as a risk factor for future violence raises important questions around the individual and environmental characteristics associated with aggressive behaviour in offenders. Such research questions were not adequately addressed in the current study, and may usefully inform the placement, management and rehabilitation of incarcerated offenders.

The present findings highlight that institutional behaviour may be a useful source of information regarding an offender's risk of recidivism, and provides a foundation for further research examining how this may be used to inform risk judgements. Research conducted by Clark, Fisher and McDougall (1993), and more recently by McDougall, Pearson, Willoughby and Bowles (2012) have noted the

consistency of offence-related behaviour across community and custodial environments, and provided evidence to support the use of behavioural monitoring as a supplement to risk assessment and management in long-term incarcerated offenders. Thus, further research may explore methods for identifying and monitoring idiographic patterns of behaviour in custody that may provide a more accurate reflection of an individual offender's level of risk for future offending than the use of official records of aggressive misconduct.

Offence Paralleling Behaviour (OPB; Jones, 2004; Daffern et al., 2007) is a theoretical framework based on research conducted by Clark and colleagues (1993) that involves the identification of sequences of behaviour that are functionally similar to an individual's prior offending that may manifest within the institutional environment. It is suggested that these offence-related behaviours may provide an indication of ongoing risk within an offender, and may therefore be the target of clinical interventions and monitored for change during incarceration (Daffern et al., 2007). The OPB framework may provide a structured method through which clinicians may use institutional behaviour to guide the assessment and treatment of incarcerated offenders; however there is a lack of empirical research examining the application of this framework in a clinical or risk assessment context (Daffern, 2010).

Another recently developed methodology designed to facilitate risk-related behavioural monitoring in custodial environments is the Offence Analogue and Offence Reduction Behaviour Rating Guide (Gordon and Wong, 2009; Gordon & Wong, 2010). Designed as a supplement to risk assessments using the VRS (Wong & Gordon, 2000), this measure assists clinicians to identify and monitor the frequency of behaviour that may be linked to an offender's ongoing criminogenic needs (Offence Analogue

Behaviour) or may represent a reduction in risk and the development of prosocial skills (Offence Reduction Behaviour). In line with the OPB framework, this measure lacks empirical validation; however, both approaches may prove valuable directions for future research.

Conclusion

The current study provides preliminary evidence indicating that aggressive misconduct is a relevant risk factor in violent offenders. This may inform decisions relating to the release of an offender from custody, treatment planning, and the supervision and management of offenders in the community. Further research is necessary to explore the generalizability of these findings and establish the nuances of the prisoner-prison interaction, specifically as it relates to aggression.

References

Andrews, D.A., & Bonta, J. (2006). *The psychology of Criminal Conduct* (4th ed.). Cincinatti, OH: Anderson Publishing.

Australian Bureau of Statistics (2009). *National Offence Index, 2009* (cat. no. 1234.0.55.001). Canberra: Author.

Bottoms, A.E. (1999). Interpersonal Violence and Social Order in Prisons. *Crime and Justice, 26,* 205-281.

Bushman, B.J. & Anderson, C.A. (2001). Is it Time to Pull the Plug on the Hostile Versus Instrumental Aggression Dichotomy? *Psychological Review, 108*, 273-279.

Carroll, J. S., Weiner, R. L., Coates, D., Galegher, J., Alibrio, J. J. (1982). Evaluation, Diagnosis, and Prediction in Parole Decision Making. *Law & Society Review, 17,* 199-228.

Clark, D.A., Fisher, M.J. & McDougall, C. (1993). A new methodology for assessing the level of risk in incarcerated offenders. *British Journal of Criminology, 33,* 436-448.

Cochran, J.C., Mears, D.P., Bales, W.D., & Stewart, E.A. (2012). Does inmate behaviour affect post-release offending? Investigating the misconduct-recidivism relationship among youth and adults. *Justice Quarterly,* DOI:10.1080/07418825.2012.736526.

Cunningham, M. D., & Sorensen, J.R. (2007). Predictive Factors for Violent Misconduct in Close Custody. *The Prison Journal, 87*, 241-253.

Daffern, M. (2010). A structured cognitive behavioural approach to the assessment and treatment of violent offenders using offence paralleling behaviour. In M. Daffern, L. Jones, & J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp.105-120). Chichester, UK: Wiley-Blackwell.

Daffern, M., Jones, L., Howells, K., Shine, J., Mikton, C., & Turnbridge, V. (2007). Editorial: Refining the definition of offence paralleling behaviour. *Criminal Behaviour and Mental Health, 17*, 265-273.

Dolan, M., & Fullam, R. (2007). The validity of the Violence Risk Scale second edition (VRS-2) in a British forensic inpatient sample. *The Journal of Forensic Psychiatry & Psychology, 18,* 381-393.

Flanagan, T.J. (1980). Time served and institutional misconduct: patterns of involvement in disciplinary infractions among long-term and short-term inmates. *Journal of Criminal Justice, 8*, 357-367.

French, S.A., & Gendreau, P. (2006). Reducing Prison Misconducts: What Works! *Criminal Justice and Behavior, 33*, 185-218.

Gendreau, P., Goggin, C.E., & Law, M.A. (1997). Predicting prison misconducts. *Criminal Justice and Behavior*, *24*, 414-431.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34*, 575-595.

Gordon, A. & Wong, S.C.P. (2009). *Offence Analogue and Offence Reduction Behavior Rating Guide* . Unpublished user manual.

Gordon, A., & Wong, S.C.P. (2010). Offence analogue behaviours as indicators of criminogenic need and treatment progress in custodial settings. In M.Daffern, L. Jones, & J.Shine (Eds.), *Offence Paralleling Behaviour: A case formulation approach to offender assessment and intervention* (pp. 171-184). Chichester, UK: Wiley-Blackwell.

Gottfredson, M.R., & Adams, K. (1982). Prison behavior and release performance. *Law & Policy Quarterly, 4,* 373-391.

Heil, P., Harrison, L., English, K., & Ahlmeyer, S. (2009). Is Prison Sexual Offending Indicative of Community Risk? *Criminal Justice and Behavior, 36,* 892-908.

Huebner, B.M. & Bynum, T.S. (2006). An analysis of parole decision making using a sample of sex offender: A focal concerns perspective. *Criminology, 44,* 961-991.

Jones, L. (2004). Offence Paralleling Behaviour (OPB) as a framework for assessment and interventions with offenders. In A. Needs & G. Towl (Eds.), *Applying psychology to forensic practice* (pp.34-63). Oxford: British Psychological Society and Blackwell Publishing.

Kinnevy, S.C. & Caplan, J.M. (2008). *Findings from the APAI International Survey of Releasing Authorities* [Research Report]. Philidelphia, PA: Center for Research on Youth & Social Policy.

Lahm, K.F. (2008). Inmate-on-inmate assault: A multilevel examination of prison violence. *Criminal Justice and Behavior, 35*, 120-137.

Lattimore, P.K., Visher, C.A., & Linster, R. L. (1995). Predicting rearrest for violence among serious youthful offenders. *Journal of Research in Crime and Delinquency, 32*, 54-83.

McDougall, C., Pearson, D.A.S., Willoughby, H., & Bowles, R.A. (2012). Evaluation of the ADViSOR project: Cross-situational behaviour monitoring of high-risk offenders in prison and the community. *Legal and Criminological Psychology*. Advance online publication doi/10.1111/j.2044-8333.2012.02059.x.

Mooney, J.L., & Daffern, M. (2011). Institutional Aggression as a Predictor of Violent Recidivism: Implications for Parole Decision Making. *International Journal of Forensic Mental Health,* 10, 53-63

Porporino, F.J. (1986). Managing Violent Individuals in Correctional Settings, *Journal of Interpersonal Violence, 1*, 213-236.

Steinke, P. (1991). Using situational factors to predict types of prison violence. *Journal of Offender Rehabilitation, 17*, 119-132.

Trulson, C.R., DeLisi, M., & Marquart, J.W. (2011). Institutional Misconduct, Delinquent Background, and Rearrest Frequency Among Serious and Violent Delinquent Offenders. *Crime & Delinquency, 57*, 709-731.

Wong, S.C.P., & Gordon, A. (2000). *Manual for the Violence Risk Scale*. Saskatchewan, Canada: University of Saskatchewan.

Wong, S.C.P., & Gordon, A. (2006). The validity and reliability of the Violence Risk Scale: A treatment-friendly violence risk assessment tool. *Psychology, Public Policy, and Law, 12*, 279-309.

Zamble, E. (1992). Behavior and adaptation in long-term prison inmates: Descriptive longitudinal results. *Criminal Justice and Behaviour, 19*, 409-425.

CHAPTER FIVE: THE OFFENCE ANALOGUE AND OFFENCE REDUCTION BEHAVIOUR RATING GUIDE AS A SUPPLEMENT TO VIOLENCE RISK ASSESSMENT IN INCARCERATED OFFENDERS

Preamble to empirical paper

Chapter five presents the third empirical study undertaken as part of this thesis. The link between aggressive misconduct within the prison environment and violent recidivism following release was demonstrated in the previous study. However, some limitations that accompany the use of official records of aggressive misconduct as a marker of risk for future violence were noted.

In the third study a preliminary investigation is conducted into the utility of the Offence Analogue and Offence Reduction Behavior Guide (Gordon & Wong, 2009) as a supplement to violence risk assessments of incarcerated offenders. This guide may provide a structured method for monitoring risk-related behaviours in custody and enhance existing risk assessment procedures that incorporate the Violence Risk Scale (VRS; Wong & Gordon, 2000). This research will also explore whether any of the risk-related behaviours identified using this rating guide are associated with violent recidivism following release. This paper has been submitted to a peer-reviewed journal.

Monash University

Declaration for thesis chapter five

Declaration by candidate

In the case of chapter five, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Literature review, study design, data collection and analysis and preparation of paper	80%

The following co-authors contributed to the work:

Name	Nature of contribution	Extent of contribution (%)
A/Prof Michael Daffern	General supervisory input, review and editing of paper drafts.	20%

Candidate's signature: Date:

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
(4) there are no other authors of the publication according to these criteria;
(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

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The Offence Analogue and Offence Reduction Behaviour Rating Guide as a supplement to violence risk assessment in incarcerated offenders

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Abstract

The Offence Analogue and Offence Reduction Behaviour Rating Guide provides a structure for monitoring behaviours linked to a violent offenders' criminogenic needs within the prison environment. It has the potential to assist reappraisals of dynamic risk factors, measure treatment progress and enhance release decision making. The present study investigates the utility of this guide by 1) exploring whether Offence Analogue Behaviours (OABs) and Offence Reduction Behaviours (ORBs) manifest within the prison environment, and 2) investigating the relationship between these behaviours and violent recidivism. This study was conducted via a retrospective review of case files for 94 violent offenders imprisoned and then released into the community in Victoria, Australia. The results indicate that these risk-related behaviours can be identified, and some OABs and ORBs are associated with time to the commission of a violent offence post-release. Most of the significant predictors of violent recidivism were pro-social behaviours (ORBs). This illustrates the importance of attending to the development of pro-social behaviour in addition to a reduction in antisocial behaviour when assessing risk for future violence in incarcerated offenders. These results suggest the OAB and ORB rating guide may provide a useful framework for structuring observations of risk-related behaviours in custody.

KEY WORDS: Violence risk assessment, violent offenders, prisons, recidivism, Offence Analogue Behaviour, Offence Paralleling Behaviour.

The Offence Analogue and Offence Reduction Behaviour Rating Guide as a supplement to violence risk assessment in incarcerated offenders

The assessment of risk for future violence has been the focus of much empirical research. Recent decades have seen the development of a wide range of risk assessment tools, including both actuarial (e.g. Violence Risk Appraisal Guide; VRAG; Quinsey, Harris, Rice, & Cormier, 2006; STATIC 99; Hanson & Thorton, 1999) and structured professional judgement measures (e.g. HCR-20; Webster, Douglas, Eaves, & Hart, 1997). Such measures have improved the accuracy of risk assessments, when compared to unaided clinical judgements (Ægisdóttir, White, Spengler, Maugherman, Anderson, Cook, Lampropoulos, Walker, & Cohen, 2006; Grove, Zald, Lebow, Snitz, & Nelson, 2000; Quinsey, Harris, Rice, & Cormier, 2006). The need for risk assessment processes that facilitate the management, monitoring and reduction of risk has been highlighted (Douglas & Skeem, 2005). Contemporary research has now focused on the development and validation of approaches that assist clinicians to identify treatment targets, monitor change in risk over time, and inform release decision making (Lewis, Olver & Wong, 2012). Case formulation driven approaches that draw upon structured risk assessment measures are receiving increased research attention (Daffern, Jones, Howells, Shine, Mikton & Turnbridge, 2007; Hart, Sturmey, Logan & McMurran, 2011; Gordon & Wong, 2010; McDougall, Pearson, Willoughby & Bowles, 2012). This paper explores the relationship between institutional behaviour and reoffending following release from prison, and conducts a preliminary investigation into the application of a structured measure for monitoring risk-related behaviours in custody, the so-called Offence Analogue and Offence Reduction Behaviour Rating Guide (Gordon & Wong, 2009).

Institutional misconduct and recidivism in violent offenders

Previous research has indicated that institutional behaviour may provide an indication of an offender's propensity for future criminal behaviour. Institutional misconduct has been shown to significantly predict re-arrest for general (Trulson, DeLisi, & Marquart, 2011) and violent offences (Lattimore, Visher & Linster, 1995) in samples of young offenders following release from custody. Cochran, Mears, Bales and Stewart (2012) reported an association between institutional misconduct and reconviction in a sample of adult offenders. Furthermore, Heil, Harrison, English and Ahlmeyer (2009) found a significant relationship between sexual misconduct within prison and re-arrest for violent offences. In a study of 148 adult male offenders incarcerated in Victoria, Australia, Mooney and Daffern (under review) found that offenders who engaged in three or more acts of aggression in prison were charged with a violent offence sooner than offenders with no record of in-prison aggression, even after controlling for risk for future violence. However, some unusual findings were reported; 40.7% of the offender sample who were aggressive on three or more occasions were not charged with a violent offence following release and 26% of offenders who were not aggressive in prison were charged with a violent offence following release. Therefore, while official records of aggressive misconduct in prison may provide some indication of an offender's propensity for future violence, its use is limited (e.g. official records provide an under-estimation of misbehaviour, lack detail regarding the nature, context and relevance of institutional misconduct, focus exclusively on antisocial rather than pro-social behaviour, and fails to consider how the prison environment may suppress or alter an offender's behaviour).

Some research has extended beyond the examination of institutional misbehaviour as a risk factor, and explored how the monitoring of offence-related behaviours in custody may inform individual case formulation and risk assessment. Clark, Fisher and McDougall (1993) developed a structured methodology that facilitated the identification of a set of behaviours related to an individual's index offence and the monitoring of such behaviours within the prison environment. This approach was designed to assess ongoing risk in long-term incarcerated offenders. The findings from this research indicated that 60% of the actual behaviours observed during incarceration were predicted by the offence-related behavioural patterns identified for each offender at the beginning of the study. This highlights the consistency of offence-related behavioural patterns between community and prison settings, and suggests behavioural monitoring may be used to assess risk in incarcerated offenders.

In a similar line of research, McDougall and colleagues (2012) conducted an evaluation of the ADViSOR project, which was designed to explore the use of behavioural monitoring across prison and community settings as a means of improving the management of high-risk offenders following release from prison. The ADViSOR project involved the monitoring of offence-related and positive behaviours (viewed as incompatible with planned reoffending) for 25 high-risk offenders under Multi-Agency Public Protection Arrangements (MAPPA) over a period of incarceration and one year post-release. The results suggested similarities between the types of behaviours observed within the prison environment and those recorded in the community, and revealed that the frequency of the offence-related behaviours observed in custody significantly predicted recidivism or return to prison. The frequency of positive behaviours observed in prison and the community were also significantly positively

correlated. This provides support for the consistency of behaviour across community and prison environments and highlights the utility of monitoring both risk-related and positive behaviours in custody to assist the assessment and management of risk in high-risk offenders being released into the community.

The Offence Paralleling Behaviour (OPB) framework (Daffern, Jones, Howells, Shine, Mikton & Turnbridge, 2007; Jones, 2004) provides a guide for using behavioural sequences that emerge in custodial settings that are functionally similar to previous offending behaviour (see Daffern et al., 2007, for a detailed definition of OPB). These behavioural sequences may serve as targets for treatment and their frequency may be monitored as an indication of treatment progress and ongoing risk (Daffern et al., 2007). Treatment progress may also be demonstrated by an offender's development of pro-social behaviours (Daffern et al., 2007) in situations that may have previously triggered offending behaviour. Although this framework has been receiving increased research attention, it lacks proper empirical validation.

Based on the assumption that an offender's behavioural problems in the community will manifest within custodial environments, Gordon and Wong (2010) developed the Offence Analogue and Offence Reduction Behaviour Rating Guide (OAB and ORB rating guide; Gordon and Wong, 2009), which is based upon and has the potential to enhance reassessments for violence risk undertaken with the aid of the Violence Risk Scale (VRS; Wong & Gordon, 2000). The VRS is a structured professional judgement tool designed to assess risk for future violence, assist treatment planning and monitor change in risk following treatment (Wong & Gordon, 2000). It contains a set of six static and twenty dynamic variables that have been linked to violence either empirically or theoretically. The VRS allows stage of change scores to

be recorded for each dynamic factor to assess treatment readiness, and high scores on these risk factors are said to identify potential treatment targets. In this way, the VRS may provide guidance to treating clinicians and assists with the ultimate goal of risk reduction. The VRS may be re-administered post-treatment to assess for change in level of risk and treatment progress. The OAB and ORB rating guide is designed to assist clinicians or risk assessors to assess relevant behavioural indicators of risk or improvement for each VRS dynamic risk factor. The theoretical underpinning of the VRS, and therefore the OAB and ORB rating guide, is the Risk Needs Responsivity model (RNR; for further detail see Andrews & Bonta, 2006).

The dynamic factors incorporated in the VRS are said to represent an offender's criminogenic needs; therefore, Gordon and Wong (2010) introduced the term Offence Analogue Behaviours (OABs) to describe the behavioural manifestations of these needs within custodial environments. In line with the OPB framework, Gordon and Wong (2010) also recognise the importance of monitoring pro-social alternative behaviours; the newly adopted 'appropriate skills' for handling situations that had previously been responded to in an antisocial manner. These skills are referred to as Offence Reduction Behaviours (ORBs). A reduction in OABs and increase in ORBs is said to indicate treatment progress and consequently, a reduction in risk. Theoretically these behaviours are idiosyncratic to the individual, however the OAB and ORB rating guide provides a list of example behaviours relevant to each dynamic factor. For instance, the first dynamic factor, violent lifestyle, may manifest through behaviour such as 'violence or aggression as a means to an end' or 'power and control tactics with female staff or partner(s)' (Gordon & Wong, 2009, p. 4). The type and frequency of relevant behaviours are then recorded over a set review period. This measure may provide

clinicians and risk assessors with guidance regarding how to utilise information relating to institutional behaviour to inform assessments, treatment planning, and release decision-making.

The current study

The current study involves a preliminary investigation into the utility of the OAB and ORB rating guide as an aid for monitoring the presence and frequency of manifestations of dynamic risk factors during incarceration in a sample of violent offenders in Victoria, Australia. The first aim of the study was to investigate whether these OABs and ORBs are identifiable and recorded within the prison environment through a retrospective case-file review. The second aim was to investigate the relationship between the frequency of the OABs and ORBs recorded in custody and violent recidivism following release. Given previous research revealing the VRS' predictive validity (Lewis, Olver & Wong, 2012; Wong & Gordon, 2006) it was hypothesised that each of the VRS' equivalent OABs would be positively associated with violent recidivism and each of the ORBs would be negatively related with violent recidivism.

Method

Subjects

The sample comprised 94 adult male offenders incarcerated at Barwon (maximum security), Loddon or Marngoneet Correctional Centres (medium security) in Victoria, Australia. All subjects had been convicted of one or more violent offences and were referred for a violence risk assessment to determine level of risk and treatment need. The risk assessment procedure employed by Corrections Victoria incorporates the completion of the VRS (Wong & Gordon, 2000). Those judged to be moderate or high

risk are deemed appropriate for the moderate or high intensity Violence Intervention Program (VIP) respectively. Only subjects deemed moderate or high risk were included in the current study. The decision to exclude subjects deemed low risk was based on the limited file information typically available for these offenders. The low risk rating on the VRS was over-ridden by the assessing clinician for three subjects. These three subjects were subsequently referred for the Violence Intervention Program and included in the study sample.

Data collection procedure

Data were collected via retrospective file review. The files reviewed for each offender included a Clinical Service File and Individual Management Plan file provided by Corrections Victoria, and the Adult Parole Board file provided by the Adult Parole Board of Victoria (see below for description of the contents of these files). A data collection protocol (available from the authors on request) was developed for the purpose of the current study and contained a set of demographic variables, the type of index offence and sentence length for each offender together with the measures listed below. Two doctoral students systematically reviewed the case files for each offender using this protocol. Ten cases were double-coded, which comprised 10.6% of the sample. Overall interrater reliability was moderate (Landis & Koch, 1977). The mean weighted Cohen's Kappa for categorical variables was 0.54, and all coefficients were significant at $p < .01$. The mean Krippendorff's alpha was 0.67 (Hayes & Krippendorff, 2007; Krippendorff, 2004).

Demographic variables

Information relating to an offender's age at the time of prison entry and ethnicity (Australian/Caucasian, Aboriginal or Torres Strait Islander and Other Ethnicity) were recorded for descriptive purposes from file information.

Index offence and sentence length

The length of the prison sentence was recorded for each offender. The type of index offence resulting in the offender's term of imprisonment was coded using the following offence categories: murder/manslaughter, assault (including recklessly/intentionally and/or negligently causing serious injury), sexual assault, robbery (including armed robbery, aggravated burglary), other violent offences (including kidnapping, unlawful imprisonment, threaten to kill), drug-related offences (including trafficking, possession/cultivation of substances), property-related offences (including criminal/property damage, burglary, theft), breach of parole/community-based order, and other non-violent offences (including handle/receive stolen goods, obtain property/financial advantage by deception, possession of a weapon). If the subject's index offences comprised more than one offence type, the most severe offence category was coded (e.g. if both assault and property-related offences were present, the index offence was coded as assault). The National Offence Index (NOI; Australian Bureau of Statistics, 2009) was utilised to determine offence severity.

Treatment completion

Offenders' completion of the moderate or high intensity Violence Intervention Program during imprisonment was recorded from file information according to the following three categories: successfully completed the program, commenced and did not successfully complete the program, and did not commence the violence program.

Measures

  Violence Risk Scale. The Violence Risk Scale (VRS; Wong & Gordon, 2000) is a structured professional judgement tool designed to assess risk of future violence, identify treatment targets and monitor change in risk post-treatment. This measure contains six static and twenty dynamic risk factors. Stage of change scores are recorded for each of the dynamic factors to assess treatment readiness, and these factors may act as treatment targets. The VRS yields a total static score, a total dynamic score and an overall total score. The overall total score corresponds to one of three risk categories: low, moderate or high risk. This overall risk rating produced from the pre-treatment risk assessment was used in the current study for descriptive purposes. Research conducted by Wong and Gordon (2006) indicated that the VRS was a valid predictor of violent and non-violent recidivism in Canadian adult male offenders. The VRS has also demonstrated predictive validity in a population of high-risk offenders with psychopathic traits (Lewis et al., 2012).

  Offence Analogue and Offence Reduction Behaviour Rating Guide. The OAB and ORB rating guide (Gordon & Wong, 2009) was developed as a supplement to the VRS, and facilitates the identification and monitoring of OABs and ORBs within custodial environments. It incorporates the twenty dynamic VRS risk factors. For each factor the assessor is required to rate the frequency of the OABs and ORBs on a 4-point scale: 'never', 'seldom', 'somewhat frequent' and 'frequent'. The guide provides a list of example analogue and reduction behaviours that correspond to each risk factor. For example, for the risk factor emotional control an OAB example is: 'Emotional outbursts/angry responses directed at staff and/or peers', and an ORB example is: 'Takes time-outs, talks with staff, uses relaxation skills, and uses other emotional

management skills when emotionally distressed'. The assessor may select the behaviours relevant to the offender and/or record additional behaviours specific to the offender's history of aggressive behaviour (e.g. emotional control OAB: 'Low tolerance for frustration and tendency to express this through verbal abuse directed at others'). The frequency of these behaviours in custody is monitored over set review periods, and any change in frequency is said to indicate treatment effect.

In the current study this measure was completed retrospectively using prison case file documentation (the Clinical Services, Individual Management Plan and Adult Parole Board files) including: assessment reports, treatment completion reports, group and individual treatment case notes, case-management notes written by custodial staff, incident reports related to institutional misconduct, and documentation related to work and education performance. Additionally, documentation relating to an offender's behaviour at parole reviews, correspondence with the Adult Parole Board and Parole Assessment Reports (completed by Community Corrections Officers prior to release on parole) were used to complete the OAB and ORB rating guide. The single review period commenced from the date of prison entry and concluded on the date of release for each subject. Multiple review periods were not used in the current study. This was due to the retrospective study design and the difficulty in consistently identifying the dates for all behaviours recorded. The frequency of OABs and ORBs for each subject was recorded using the aforementioned 4-point scale. An example of how an ORB was recorded for a subject on one dynamic factor is provided:

***Dynamic Factor 3 - Criminal Attitudes*:**

Offence Reduction Behaviour: A behaviour selected from the list of example behaviours provided in the rating guide was: 'Actively challenges and/or rejects criminal attitudes and con-code in group and other circumstances'.

Source of information: This behaviour was noted in the completion report from a treatment program targeting substance use that described the offender challenging the offence-supportive beliefs expressed by other group members.

Frequency: The frequency of this behaviour was coded as 'seldom' as this behaviour was noted in one treatment completion report as opposed to several documents.

Violent recidivism

The number and date of any violent criminal charges following release into the community was coded for each offender. This data was accessed from the official criminal history records provided by Victoria Police. The follow-up period over which criminal charges were recorded commenced at the date of release, which differed for each offender (the cut-off for the latest release date was 1 August, 2010), and the end of the follow up period (16 March 2012). The length of the follow-up period ranged from 23 months (1.9 years) to 68 months (5.6 years), with a mean of 45 months (3.7 years). Offences categorised as violent included: murder/manslaughter, assault, sexual assault, robbery, and other violent offences (see previous description of the coding of index offence for detail of the offences captured within these categories).

Data analysis

The independent variables consisted of the twenty OABs and twenty ORBs. Each variable was initially coded using the four categories outlined in the OAB and

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ORB rating guide ('never', 'seldom', 'somewhat frequent' and 'frequent'). The first stage of data analysis involved an investigation of how frequently each of the OABs and ORBs were observed and recorded in the prison environment. Upon review of these frequencies, the independent variables were re-coded from four categories into a dichotomous variable (absent/present) due to the high frequency of 'never' ratings. The dichotomous variable was used in subsequent bivariate and multivariate analyses. The dependent variable, violent recidivism, was coded as a dichotomous variable with the following categories: absent and present.

The second stage of analysis consisted of a series of bivariate Cox regression analyses, a form of survival analysis, between each independent variable and violent criminal charges in order to establish which of these factors were significantly associated with time to violent charge. A multivariate Cox regression analysis was undertaken at the third stage of analysis to establish the most important predictors of time to violent charge. This incorporated the set of independent variables that emerged as significant predictors at the bivariate level of analysis, at $p < .01$. A more conservative alpha level was selected to account for the possibility of spurious positive results arising from the multiple comparisons conducted during the second stage of analysis. Survival analysis was considered a suitable technique to employ in the current study as it examines time to a discrete event such as violent charge, while taking into account the differing lengths of time offenders spent in the community post-release. According to Eliason (1993; cited in Tabachnik & Fidell, 2001) a sample size of sixty subjects is recommended when five or fewer co-variates are incorporated in a survival analysis. The sample size in the current study is adequate for this form of analysis. Missing data was addressed by removing cases through a pairwise process from each analysis.

Results

Descriptive statistics

The mean age of subjects at prison entry was 30.4 years, and ranged from 19.4 to 55 years. The majority of offenders were of Australian/Caucasian ethnicity (61.7%), 17% were Aboriginal or Torres Strait Islander and 21.3% were categorised as Other Ethnicity. Offenders in the sample were incarcerated for assault (63.8%), robbery (18.1%), murder/manslaughter (6.4%), property-related offences (2.1%), sexual assault (1.1%), and other violent offences (2.1%). The index offence for the remaining offenders was non-violent. The continuous variable depicting sentence length was positively skewed. Therefore, this was recoded as a categorical variable as follows: 22.6% of the subjects were sentenced to two years or less, 21.5% were sentenced to two to six years, 30.1% were sentenced to four to six years, and 25.8% of the sample had a sentence of six years or more. According to the pre-treatment VRS scores, 33.7% of the sample were categorised as high risk, 63% were categorised as moderate risk, and 3.3% were categorised as low risk. The majority of offenders in the sample completed the moderate or high intensity Violence Intervention Program: 71.3% successfully completed the program, 10.6% commenced and did not successfully complete the program, and 18.1% did not commence the violence program. Reasons for not commencing the program included issues relating to an offender's presumed treatment responsivity (e.g. mental health or issues impacting capacity to complete treatment in a group setting), prison/sentence issues (e.g. insufficient time to complete program within the prison), or a decision that the offender was more suitable for an alternative form of treatment. Table 1 illustrates the frequency with which the OABs and ORBs were observed over the subjects' sentence of imprisonment for each dynamic VRS factor.

Table 1

Frequencies of OABs and ORBs for VRS Dynamic Factors

Dynamic VRS Factors	Offense Analogue Behaviours				Offense Reduction Behaviours			
	Never	Seldom	S Frequent	Frequent	Absent	Seldom	S Frequent	Frequent
1) Violent Lifestyle	60.6%	23.4%	12.8%	3.2%	48.9%	40.4%	10.6%	0.0%
2) Criminal Personality	46.8%	37.2%	7.4%	8.5%	87.2%	9.6%	3.2%	0.0%
3) Criminal Attitudes	30.4%	30.4%	32.6%	12.0%	33.0%	42.6%	18.1%	6.4%
4) Work Ethic	46.2%	33.3%	18.3%	2.2%	21.5%	32.3%	38.7%	7.5%
5) Criminal Peers	78.5%	19.4%	2.2%	0.0%	85.1%	10.6%	4.3%	0.0%
6) Interpersonal Aggression	35.1%	26.6%	20.2%	18.1%	60.2%	34.4%	5.4%	0.0%
7) Emotional Control	30.9%	28.7%	27.7%	1.1%	54.3%	36.2%	8.5%	1.1%
8) Violence during Institutionalization	42.6%	31.9%	14.9%	10.6%	69.1%	24.5%	5.3%	1.1%
9) Weapon Use	88.3%	8.5%	2.1%	1.1%	98.1%	1.1%	0.0%	0.0%
10) Insight into Violence	10.9%	47.8%	33.7%	7.6%	27.2%	60.9%	10.9%	1.1%
11) Mental Disorder	90.1%	7.7%	2.2%	0.0%	86.8%	7.7%	4.4%	1.1%
12) Substance Abuse	33.7%	41.3%	17.4%	7.6%	35.9%	46.7%	14.1%	3.3%
13) Stability of Relationships*	85.1%	12.8%	2.1%	0.0%	53.2%	30.9%	14.9%	1.1%
14) Community Support	77.7%	21.3%	1.1%	0.0%	41.5%	41.5%	13.8%	3.2%
15) Released to High Risk Situations	55.3%	31.9%	11.7%	1.1%	72.3%	23.4%	4.3%	0.0%
16) Violence Cycle	68.8%	19.4%	9.7%	2.2%	75.5%	21.3%	2.1%	1.1%
17) Impulsivity	44.7%	29.8%	23.4%	2.1%	76.3%	21.5%	2.2%	0.0%
18) Cognitive Distortions	9.7%	26.9%	44.1%	19.4%	51.1%	44.7%	4.3%	0.0%
19) Compliance with Supervision*	87.2%	10.6%	2.1%	0.0%	48.9%	38.3%	11.7%	1.1%
20) Security Level of Institution*	46.2%	33.3%	18.3%	2.2%	35.1%	41.5%	22.3%	1.1%

Note: N = 94. * Indicates: 13) Stability of Relationships = Stability of Relationships with Significant Others; 19) Compliance with Supervision = Compliance with Community Supervision; 20) Security Level of Institution = Security Level of Anticipated Release Institution.

Bivariate analyses

Violent criminal charges were recorded for 41.9% of the sample over the follow-up period. A series of bivariate Cox regression survival analyses were undertaken in order to identify significant associations between the dichotomous independent variables and time to violent criminal charge. Using the alpha level $p < .01$, the following five factors emerged as significant predictors: violent lifestyle ORB, $\chi^2 =$ 9.345 (1), $p = .002$; $B(SE) = -0.99$ (0.34), $p = .003$, $OR = .37$, 95% CI [0.19, 0.72]; criminal attitudes ORB, $\chi^2 = 10.942$ (1), $p = .001$; $B(SE) = -1.02$ (0.32), $p = .002$, $OR =$ .36, 95% CI [0.19, 0.68]; work ethic ORB, $\chi^2 = 11.12$ (1), $p = .001$; $B(SE) = -1.20$ (0.35), $p = .001$, $OR = .33$, 95% CI [0.17, 0.66]; emotional control OAB, $\chi^2 = 6.69$ (1), $p = .01$; $B(SE) = 1.09$ (0.44), $p = .014$, $OR = 2.99$, 95% CI [1.25, 7.14] and security level of anticipated release institution ORB, $\chi^2 = 7.98$ (1), $p = .005$; $B(SE) = -.88$ (0.32), $p =$ .006, $OR = 0.41$, 95% CI [0.22, 0.78]. Those subjects who demonstrated pro-social behaviour (ORB) while in prison incurred a violent charge later than those who did not show these ORBs. Subjects who demonstrated the emotional control OAB in prison tended to reoffend sooner than those who did not.

Multivariate analysis

A multivariate Cox regression analysis was completed including the significant predictors of time to violent charge identified at the bivariate level. Overall the model significantly predicted time to violent criminal charge, $\chi^2 = 27.350$ (5), $p < .001$. However, none of the predictors were independently associated with time to violent charge at $p < .01$, as illustrated in Table 2.

Table 2

Cox Regression analysis of the significant bivariate predictors and time to violent charge

Independent variable	*B*	*SE*	*p*	Odds Ratio	95% confidence intervals	
					Lower	Upper
Violent Lifestyle ORB	-0.53	0.39	.173	0.59	0.27	1.26
Criminal attitudes ORB	-0.72	0.35	.037	0.48	0.25	0.96
Work Ethic ORB	-0.82	0.42	.050	0.44	0.19	1.00
Emotional Control OAB	0.89	0.45	.046	2.44	1.02	5.88
Security Level of Anticipated Release Institution ORB	-0.18	0.43	.683	0.84	0.36	1.96

$N = 92$

Discussion

This study has shown that behavioural manifestations of relevant dynamic risk factors (Offence Analogue Behaviours) and their pro-social equivalents (Offence Reduction Behaviours) are identifiable within the prison environment, and some of these behaviours are associated with violent recidivism. Overall, few of these OABs and ORBs were frequently recorded in official records, particularly pro-social behaviour (ORBs). Among the behaviours identified more often were criminal attitudes (OABs and ORBs) and cognitive distortions (OABs). A likely explanation for this finding relates to the tendency for clinicians to note and comment on the presence of antisocial acts and expressed attitudes in their pre-treatment assessments, treatment completion reports, and treatment progress notes. Analogue behaviours related to interpersonal aggression and violence during institutionalization were also among the more frequently

recorded behaviours. This finding is consistent with the emphasis placed on identifying and managing misconduct, such as physical assaults or verbal abuse directed at staff, within correctional centres. Typically, formal procedures are followed by custodial staff when misconduct is observed, making this documentation readily available in prison case files. In contrast, pro-social behaviour is more commonly documented at the discretion of custodial and clinical staff. This likely contributes to a tendency to focus on antisocial behaviour and neglect the reporting of pro-social behaviour. This was reflected in the lower frequency of ORBs overall. An exception was pro-social behaviour demonstrating work ethic. This was often illustrated in reports of offenders' successful completion of education, active participation in treatment and positive reports regarding their performance at their occupation.

The second aim of this research was to identify whether the presence of these antisocial or pro-social behaviours during imprisonment, as measured on the OAB and ORB rating guide was associated with violent recidivism post-release. The behaviours representing five of the dynamic factors emerged as significantly associated with an offender's time to being charged with a violent offence: violent lifestyle ORBs, criminal attitudes ORBs, work ethic ORBs, emotional control OABs, and security level of anticipated release institution ORBs. It is important to note that multiple comparisons were completed in the data analysis process. Although a more conservative alpha level was employed, the results should be interpreted with caution. The findings illustrate that most of the behaviours significantly associated with violent recidivism were those indicating the use or development of pro-social skills (ORBs). Violent lifestyle ORBs typically involved the rejection of antisocial beliefs, avoidance of activities consistent with a violent/antisocial lifestyle, and active involvement in violence treatment.

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Examples of criminal attitudes ORBs identified included the challenging/rejection of antisocial attitudes, behaviour that illustrates respect for the rights and needs of other people and compliance with prison regulations. Work ethic was typically measured by the presence of consistent positive reports regarding participation in occupational and education programs, and the commitment to treatment programs (indicated through behaviour such as the completion of homework tasks). Offence Reduction Behaviours indicative of the security level of anticipated release institution included efforts to transfer to lower security environments (e.g. minimum security 'open-camp' style prisons), and compliance with prison rules (minimal misconduct) and recommendations regarding suitable programs (treatment/education). Finally, poor emotional control was measured by over or under-controlling responses to negative emotions, or emotional outbursts directed towards others. This was often illustrated by yelling or verbal abuse when offenders were frustrated in group treatment environments or during interactions with custodial staff.

The VRS contains factors that are theoretically and empirically linked to violence and are said to indicate an offender's criminogenic needs. Therefore an association between the behavioural manifestations of these factors, indicating either ongoing risk (OABs) or a reduction in risk (ORBs), and violent recidivism is to be expected. The current findings are somewhat consistent with these expectations; however, the results also revealed that multiple OABs and ORBs were not independently linked to violent recidivism. It may be that behavioural indicators of some dynamic factors may not be readily identifiable from file information, a methodological limitation discussed in further detail in the limitations section, or that the prison environment either suppresses or does not provide triggers for some of the

dynamic risk factors. Alternatively, behavioural indicators of some dynamic factors may be more subtle and therefore less likely to be identified in the prison environment (e.g. violence during institutionalization may be more visible than impulsivity or the stability of relationships with significant others).

There are common themes that emerge from the set of behaviours described above. The link between an offender's ability to challenge and reject attitudes consistent with a violent/antisocial lifestyle and violent recidivism is consistent with the view of antisocial cognitions as a central risk factor and criminogenic need among offenders (Andrews & Bonta, 2006). The findings also highlight the importance of participation and engagement in prosocial activities such as violence treatment, occupational and education activities. A third theme identified as important was an offender's capacity to comply with the demands of structured activities such as treatment or work, which involves compliance, co-operation with others, and commitment; whilst exercising tolerance of others and emotional regulation. These qualities have a clear link to an offender's capacity and motivation to successfully re-integrate into society following release.

Overall the findings highlight the need to look beyond the absence of problematic behaviour when appraising risk and assessing treatment progress and to consider behavioural improvement. This may provide evidence of rehabilitation, the development of alternative skills, and a reduction in the corresponding criminogenic need. This is consistent with contemporary risk assessment and management literature that calls for increased empirical attention to be directed toward protective factors (de Ruiter & Nicholls, 2011; Rogers, 2000). These results are somewhat consistent with the findings of McDougall and colleagues (2012) who found that positive behaviour

observed within the prison environment was significantly correlated with positive community behaviours. Together these findings suggest that positive behaviour is an important consideration, and the development of alternative skills related to an offender's criminogenic needs should be taken as an indicator of reduced risk more so than the mere absence of antisocial behaviour. Further, the prison environment has the potential to suppress or alter the expression of aggressive behaviour, and may lead to the development of skills to avoid the detection of misbehaviour by custodial staff (Daffern et al., 2007; Jones, 2004). As such, the presence of behavioural improvement may prove a useful focus for clinicians.

Implications

The current findings are preliminary in nature and further research is required to validate the OAB and ORB rating guide; however, this guide warrants consideration as a supplement to the VRS. This measure may prove useful in several aspects of clinical work in correctional settings. The guide may assist clinicians to identify risk-related behaviours relevant to the individual, which informs the initial and ongoing assessment of dynamic risk. It may also increase staff awareness of more subtle relevant behaviours indicating improvement or ongoing risk that may otherwise go undetected. The identification and monitoring of these behaviours also has the capacity to inform the treatment process; firstly by providing individualised treatment targets related to the offender's criminogenic needs, and secondly by providing a means of monitoring for a reduction in the frequency of antisocial behaviour and an increase in the development of pro-social skills as an indication of treatment progress.

The OAB and ORB rating guide may assist clinicians to incorporate institutional behaviour into their assessments; however, the implementation of behaviour monitoring

in custodial settings is not without practical challenges. For instance, the OABs and ORBs to be monitored may not be consistent with the behaviour custodial staff wish to monitor for other purposes (e.g. adjudicating misconduct), it may be difficult to record behaviour in a consistent and objective manner, and the individualised assessment and monitoring of behaviour may be time intensive (Clark et al., 1993).

Limitations and future directions

The use of a retrospective file review methodology has clear limitations. The study relied on the recording practices of custodial and clinical staff within the prison, and the amount of detailed information varied. During data collection it became evident that behavioural manifestations of some dynamic factors were not readily identifiable through retrospective file review. Mental disorder was one such factor, which may be attributed to the lack of access to health and medical information in the current study. Stability of relationships with significant others also proved difficult to accurately code via file review, given the bulk of relevant information for this factor was drawn from prisoner self-reports that may be subject to bias. For instance, the quality of an offender's relationships was often mentioned in Parole Assessment Reports, which are prepared prior to an offender's consideration for release on parole. Therefore, there may be an incentive for offenders to exaggerate the stability of intimate and family relationships to increase the likelihood of being granted parole. The use of official records of criminal recidivism presents a further limitation, given the tendency for official records to underestimate the occurrence of violence in the community (Monahan, Steadman, Silver, Appelbaum, Clark Robbins, Mulvey, Roth, Grisso & Banks, 2001).

This research is preliminary and further research conducted prospectively is required. A prospective study design would allow for a more accurate assessment of individualised behaviour related to the offender's criminogenic needs and for direct behavioural monitoring. This would overcome some of the limitations described above and enable a more accurate measure of the frequency of this behaviour within the custodial environment and its relationship to violent recidivism. Future research may also incorporate a comparison of the frequency of OABs and ORBs between a review period prior to and post treatment completion. This would assess whether the expected decline in frequency of OABs and increase in frequency of ORBs is observed, providing an indication of the utility of the OAB and ORB rating guide as a measure of treatment efficacy.

In addition, Gordon and Wong (2010) argue that the reductions in OABs and increases in ORBs need to be related to the criminogenic needs relevant for that offender in order to translate into a reduction in risk. This was beyond the scope of the current study, however warrants investigation in future prospective studies aimed at the validation of this guide.

Conclusion

The current study indicates that behaviour related to offenders' criminogenic needs do manifest within the prison environment, and some of these behaviours are linked to violent recidivism. Monitoring behaviour using a structured methodology such as the OAB and ORB rating guide may be a useful supplement to risk assessment and treatment reviews in incarcerated offenders. It is important to expand the focus from institutional misconduct and consider both reductions in antisocial behaviour as well as

the emergence and maintenance of prosocial behaviours in the assessment of treatment

progress and risk for future violence.

References

Ægisdóttir, S., White, M. J., Spengler, P. M., Maugherman, A.A., Anderson, L.A.,

Cook, R. S., Lampropoulos, G.K., Walker, B.S., & Cohen, G. (2006). The meta-

analysis of clinical judgment project: Fifty-six years of accumulated research on

clinical versus statistical prediction. *The Counseling Psychologist*, *34*, 341–382.

Andrews, D.A., & Bonta, J. (2006). *The psychology of Criminal Conduct* (4th ed.).

Cincinatti, OH: Anderson Publishing.

Australian Bureau of Statistics (2009). *National Offence Index, 2009* (cat. no.

1234.0.55.001). Canberra: Author.

Clark, D.A., Fisher, M.J. & McDougall, C. (1993). A new methodology for assessing

the level of risk in incarcerated offenders. *British Journal of Criminology, 33,*

436-448.

Cochran, J.C., Mears, D.P., Bales, W.D., & Stewart, E.A. (2012). Does inmate

behaviour affect post-release offending? Investigating the misconduct-

recidivism relationship among youth and adults. *Justice Quarterly,*

DOI:10.1080/07418825.2012.736526.

Daffern, M., Jones, L., Howells, K., Shine, J., Mikton, C., & Turnbridge, V. (2007).

Editorial: Refining the definition of offence paralleling behaviour. *Criminal*

Behaviour and Mental Health, 17, 265-273.

de Ruiter, C. & Nicholls, T.L. (2011). Protective Factors in Forensic Mental Health: A

New Frontier. *International Journal of Forensic Mental Health, 10,* 160-170.

Douglas, K.S., & Skeem, J.L. (2005) Violence Risk Assessment: Getting specific about

being dynamic. *Psychology, Public Policy, and Law*, 11, 347-383.

Eliason, S.R. (1993). *Maximum Likelihood Estimation: Logic and Practice*. Newbury Park, CA: Sage Publications.

Gordon, A., & Wong, S. (2009). *The Offence Analogue and Offence Reduction Behaviour Rating Guide.* Unpublished user manual.

Gordon, A., & Wong, S.C.P. (2010). Offence analogue behaviours as indicators of criminogenic need and treatment progress in custodial settings. In M.Daffern, L. Jones, & J.Shine (Eds.), Offence Paralleling Behaviour: A case formulation approach to offender assessment and intervention (pp. 171-184). Chichester, UK: Wiley-Blackwell.

Grove, W.M., Zald, D.H., Lebow, B.S., Snitz,, B.E., & Nelson, C. (2000). Clinical versus mechanical prediction: A meta-analysis. *Psychological Assessment, 12*, 19-30.

Hanson, R.K. & Thorton, D. (1999). *Static 99: Improving actuarial risk assessment for sex offenders.* Ottawa, Ontario, Canada: Department of the Solicitor General of Canada.

Hart, S., Sturmey, P., Logan, C., & McMurran, M. (2011). Forensic case formulation. *International Journal of Forensic Mental Health, 10,* 118-126.

Hayes, A.F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication methods and measures, 1,* 77-89.

Heil, P., Harrison, L., English, K., & Ahlmeyer, S. (2009). Is Prison Sexual Offending Indicative of Community Risk? *Criminal Justice and Behaviour, 36,* 892-908.

Jones, L. (2004). Offence Paralleling Behaviour (OPB) as a framework for assessment and interventions with offenders. In A. Needs & G. Towl (Eds.), *Applying psychology to forensic practice* (pp.34-63). Oxford: British Psychological Society and Blackwell Publishing.

Krippendorff, K. (2004). Reliability in Content Analysis: Some common misconceptions and recommendations. *Human Communication Research, 30*, 411-433.

Landis, J.R., & Koch, G.G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159-174.

Lattimore, P.K., Visher, C.A. & Linster, R. L. (1995). Predicting rearrest for violence among serious youthful offenders. *Journal of Research in Crime and Delinquency, 32*, 54-83.

Lewis, K., Olver, M.E., & Wong, S.C.P. (2012). 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,* 150-164.

McDougall, C., Pearson, D.A.S., Willoughby, H., & Bowles, R.A. (2012). Evaluation of the ADViSOR project: Cross-situational behaviour monitoring of high-risk offenders in prison and the community. *Legal and Criminological Psychology*, doi/10.1111/j.2044-8333.2012.02059.x

Monahan, J., Steadman, H.J., Silver, E., Appelbaum,P.S., Clark Robbins, P., Mulvey, E.P., Roth, L.H., Grisso, T., & Banks, S. (2001). *Rethinking risk assessment: The MacArthur Study of Mental Disorder and Violence.* New York: Oxford University Press.

Mooney, J.L., & Daffern, M. (under review). The relationship between aggressive

behavior in prison and violent offending following release. *Psychology, Crime*

& Law.

Quinsey, V.L., Harris, G.T., Rice, M.E. & Cormier, C.A. (2006). *Violent offenders:*

Appraising and managing risk (2nd ed). Washington, DC: American

Psychological Association.

Rogers, R. (2000). The uncritical acceptance of risk assessment in forensic practice.

Law and Human Behavior, 24, 595-605.

Tabachnik, B.G. & Fidell, L.S. (2001*). Using multivariate statistics* (4th ed.). Boston:

Allyn & Bacon.

Trulson, C.R., DeLisi, M., & Marquart, J.W. (2011). Institutional Misconduct,

Delinquent Background, and Rearrest Frequency Among Serious and Violent

Deliquent Offenders. *Crime & Delinquency, 57*, 709-731.

Webster, C.D., Douglas, K.S., Eaves,D., & Hart, S.D. (1997). *HCR-20: Assessing risk*

for violence (version 2). Mental Health, Law, and Policy Institute, Simon Fraser

University, Burnaby, BC.

Wong, S.C.P., & Gordon, A. (2000). *Manual for the Violence Risk Scale*.

Saskatchewan, Canada: University of Saskatchewan.

Wong, S.C.P., & Gordon, A. (2006). The validity and reliability of the Violence Risk

Scale: A treatment-friendly violence risk assessment tool. *Psychology, Public*

Policy, and Law, 12, 279-309.

CHAPTER SIX: GENERAL DISCUSSION

This chapter integrates and discusses the key findings from the three empirical studies undertaken as part of this thesis. An overview of the research aims and the corresponding findings will be outlined. The implications of these findings for violence risk assessment and management, the delivery of clinical interventions, and parole release decision making in populations of violent incarcerated offenders will then be discussed. The methodological limitations of the current research project will be examined, and opportunities for future research in light of the current findings will be presented. This will be followed by concluding remarks.

Overview of research aims

The first empirical study comprised two aims. The first was to investigate the factors that predicted parole decisions made by the Adult Parole Board (APB), and the second was to elucidate the factors associated with the cancellation of an offender's parole order following release. Of particular interest in the broader context of this thesis was the link between aggressive misconduct, the parole decision and parole cancellation. The second empirical study sought to examine the relationship between aggressive misconduct during imprisonment and violent recidivism following release, whilst controlling for risk for future violence as measured by the Violence Risk Scale (VRS), age at the time of release and ethnicity. In the third empirical study the utility of the Offence Analogue and Offence Reduction Behaviour Rating Guide in the risk assessment of incarcerated offenders was explored. The first aim of this study was to establish whether the Offence Analogue Behaviours (OABs) and Offence Reduction Behaviours (ORBs) were identifiable and recorded during imprisonment. The second

was to investigate which of these behaviours were linked with violent recidivism following release. The aforementioned research aims were investigated in a population of incarcerated offenders with a history of violence in Victoria, Australia. The key findings emerging from each study are outlined below.

Research aim one: Elucidating the factors that influence parole decision making and violent offenders' performance on parole

The parole release decision is an important juncture within the criminal justice system at which determinations are made regarding an offender's suitability for release into the community following a period of imprisonment. It requires parole board members to consider a myriad of factors and review multiple sources of information, often under considerable time pressure. The complexity and importance of this decision, along with the ongoing use of discretionary decision-making processes among parole authorities internationally (Kinnevy & Caplan, 2008), renders this an important focus of empirical attention. However, contemporary research examining the factors that influence discretionary decisions is somewhat limited, particularly in Australia. Existing research has demonstrated that general and aggressive misconduct during imprisonment is among the key factors considered in the decision to release an offender on parole (Conley & Zimmerman, 1982; West-Smith, Pogrebin & Poole, 2000; Huebner & Bynum, 2006). Other factors frequently considered include offender demographic characteristics such as age (Kinnevy & Caplan, 2008), criminal history factors and offence-related variables (Huebner & Bynum, 2006; Morgan & Smith, 2005), factors related to an offender's parole plan and risk for future violence (Hood & Shute, 2000). The consideration of aggressive misconduct in parole decision making prompts an investigation into the relationship between institutional aggression and an offender's

behaviour following release, specifically parole performance and violent reoffending (parole cancellation was examined in the first empirical study and violent recidivism was examined in the second empirical study). Previous research has indicated that parole board members direct more focus toward factors with established links to reoffending in their release decisions (Gobeil & Serin, 2009). However, it is unclear whether aggressive misconduct is a valid predictor of future violence, given the potential for the prison environment to provoke, suppress or alter the expression of aggression in custody. These issues will be elaborated upon in later sections of this discussion. Limited research has explored the relationship between the factors considered in parole decisions and an offender's completion of their parole order. Existing research has produced some mixed findings with regard to the factors that predict parole cancellation and tend to examine differing sets of variables (Bahr et al., 2010; Grattet et al., 2008). Moreover, the association between aggressive misconduct and parole cancellation remains unclear given a lack of research examining this relationship.

Against this background, the first study examined the factors associated with 1) the outcome of the parole board decision, and 2) the cancellation of an offender's parole order following release. There was a focus on aggressive misconduct during imprisonment, which was included among a broader set of demographic, criminal history, offence-related, institutional and parole-related variables.

An important finding of this study was that aggressive misconduct influenced parole release decisions. First, aggressive misconduct emerged as a key factor influencing the release recommendations provided by Community Corrections Officers (CCO) to the APB. Secondly, aggressive misconduct was among the factors associated

with the outcome of the parole decision made by members of the APB (other factors included the VRS total score, the CCO's release recommendations and confirmed accommodation). In both sets of analyses, offenders who were aggressive on three or more occasions were less likely than offenders with no record of aggressive misconduct to be recommended for or granted release on parole. This finding is of particular significance given the CCO's recommendation was strongly related to the parole board decision, in addition to risk for future violence, as measured by the VRS. This suggests that an offender's aggressive behaviour in custody is considered in decisions relating to an offender's suitability for release on parole, and may be perceived by decision makers as an indication of increased risk for violent recidivism. An alternative explanation for the consideration of aggressive misconduct in release decisions relates to the historical role of the parole system as a means of regulating institutional behaviour, by granting release to offenders demonstrating good behaviour and delaying release for those engaging in more frequent misconduct (Proctor & Pease, 2000). However, an examination of the reasons underlying the consideration of aggressive misconduct in the parole decision was beyond the scope of the present study.

In relation to parole cancellation, a broad range of factors emerged as significant predictors in bivariate analyses. An offender's total number of prior convictions and VRS total risk score were positively associated with parole cancellation. Further, offenders with previous parole cancellations and a history of drug abuse were more likely to have their parole order cancelled than offenders without such a history. Conversely, those with confirmed accommodation, family support and a release recommendation from the CCO supportive of release were less likely to have their parole order cancelled. Aggressive misconduct also emerged as a significant predictor,

yet these findings were not in the expected direction and will be discussed in greater detail below.

These findings are consistent with risk assessment literature that identifies a history of antisocial behaviour, substance use and family/marital circumstances as major areas of risk/need for offenders (Andrews & Bonta, 2006). The association between prior convictions and parole cancellation is in line with previous findings that identified criminal history variables as significant predictors of parole revocation (Grattet et al., 2008), and criminal recidivism amongst parolees (Jones, Hua, Donnelly, McHutchison, & Heggie, 2006). However, in contrast to previous findings, an offender's ethnicity (Grattet et al., 2008) and community employment (Bahr et al., 2010) did not significantly predict parole cancellation in the present study.

A multivariate logistic regression analysis incorporating these factors illustrated that only family support was independently predictive of parole cancellation. This is consistent with previously reported findings that indicated support from an offender's family and friends assisted them to successfully complete parole (Bahr et al., 2010). However, a survival analysis incorporating the same set of factors while taking into account 'time to parole cancellation' showed no independently significant predictors. These findings highlight that family support may be important when predicting an offender's likelihood of success on parole, yet also indicates that the set of factors incorporated in the present research did not adequately capture key contributors to parole cancellation in this population of offenders. This may be linked to the importance of proximal dynamic risk factors in predicting success or failure on parole (Serin, Gobeil, Hanby & Lloyd, 2012). These were not captured in the current study due to the focus on pre-release factors linked to the parole release decision, yet may provide a

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useful direction for future research to build upon. This will be considered in later sections of this discussion.

Looking more closely at the relationship between aggressive misconduct and parole cancellation, initial findings suggested that individuals with one or two aggressive incidents recorded during imprisonment were more likely to have their parole order cancelled (40%), compared to offenders with no recorded aggression (19.7%), and those with three or more recorded incidents of aggression (16.7%). Subsequent review of the data relating to the board's decision to cancel an offender's parole order (presented in Appendix G) revealed that on nine occasions the APB chose to defer their decision pending the outcome of legal proceedings (relating to criminal charges laid during the parole period). Six of these cases involved offenders who had three or more recorded incidents of aggression, and three cases involved offenders with no recorded incidents. No cases related to offenders with one or two recorded incidents. These findings suggest that offenders who engaged in more frequent aggressive behaviour (three or more acts) may have been more likely to be involved in court proceedings due to further offences committed during their parole order.

Further analysis of the relationship between aggressive misconduct and a modified outcome variable (incorporating parole cancellation and instances where the board deferred decisions awaiting the outcome of legal proceedings) indicated that there was no longer a significant difference in parole cancellation between offenders in the three categories of misconduct; no aggressive incidents: 23.9%; one or two incidents: 40% and three or more incidents: 41.7%. Although this relationship was not significant, these findings indicate that a higher percentage of offenders who were aggressive during imprisonment (on one to two, or three or more occasions) had their parole order

cancelled or were involved in legal proceedings delaying the board's decision regarding cancellation, compared to offenders who were not aggressive in prison.

Research aim two: The relationship between aggressive behaviour in prison and violent offending following release

Risk of recidivism is integral to parole release decisions and aggressive misconduct may be taken as indication that an offender is more likely to reoffend violently post-release. The relationship between aggressive behaviour in prison and violent recidivism has been the subject of some empirical research; however, the volume of this research is limited in comparison to studies examining the relationship between aggression preceding imprisonment and violence following release on parole. Existing research generally illustrates a significant relationship between institutional misconduct and criminal recidivism (Heil, Harrison, English & Ahlmeyer, 2009; Lattimore, Visher, & Linster, 1995), although some studies suggest that this association is weak (Trulson, DeLisi, & Marquart, 2011). Moreover, there is a lack of research focusing specifically on the link between institutional aggression and violent recidivism. Therefore, the second study examined this relationship, while controlling for the effects of violence risk and other offender characteristics (age at the time of release and ethnicity).

Results showed that aggressive misconduct was significantly associated with violent recidivism. Specifically, offenders with three or more recorded incidents of aggression during imprisonment were charged with a violent offence 2.82 times sooner than offenders with no record of aggressive behaviour, while controlling for age at the time of release, ethnicity and violence risk as measured by the VRS. There was no significant difference in time to violent charge between the group of offenders with no

recorded aggressive incidents and those with one or two incidents. This suggests that those who are repeatedly aggressive in prison are at an increased risk of violent recidivism and supports the relevance of aggressive misconduct as a risk factor in this population of offenders. The findings also highlight that excessive weight should not be attributed to evidence of one or two aggressive acts during imprisonment, as this does not appear to provide a valid indication of an ongoing propensity for violence. However, some exceptions to these findings were revealed.

First, some offenders (26%) who were not aggressive in custody were charged with a violent offence post-release. A possible explanation for this finding is that the prison environment served to limit the opportunity or likelihood of aggression by removing typical triggers (e.g. situations and/or victims) and placing increased restraints on behaviour through prison surveillance and management procedures (Daffern et al., 2007; Jones, 2004). Alternatively, these offenders may have engaged in aggression during imprisonment that was not detected by custodial staff. Jones (2004) highlights the need to consider an offender's skills at avoiding detection of problematic behaviours in custodial settings. Conversely, the aggressive behaviour may have been detected by staff who subsequently resolved the matter outside of formal reporting procedures.

An additional finding was that 40.7% of offenders who engaged in three or more aggressive incidents in prison were not charged with a violent offence over the follow-up period. This finding may be explained by drawing on research that highlights how characteristics of the prison environment may serve to increase the likelihood of aggression (Bottoms, 1999). This may include social factors, such as interpersonal interactions between prisoners and custodial staff that may be characterised by conflict and a power differential (Bottoms, 1999), the age and risk level of fellow prisoners

(Gendreau, Goggin & Law, 1997), and physical factors, such as the architecture and locations within the prison (Steinke, 1991). The aforementioned findings may be understood in the context of contemporary models of aggressive and violent behaviour that in basic terms, suggest aggression is a consequence of both individual and environmental factors (Bushman & Anderson, 2001). Alternatively, this group of offenders may have engaged in aggressive or violent behaviour in the community that did not come to the attention of or was not recorded by the police. The tendency for official records of criminal recidivism to underestimate the occurrence of offending behaviour in the community has been widely documented (Jones, 2004; Monahan, Steadman, Silber, Appelbaum, Clark Robbins, Mulvey, Roth, Grisso & Banks, 2001). Therefore, it is possible that offenders in this group were indeed violent post-release and avoided detection or adjudication.

Although repeated aggressive misconduct may be associated with violent recidivism, these results highlight the need to consider environmental determinants of behaviour when incorporating institutional aggression into judgments regarding an offender's risk for future violence. It is also important to note the limitations of using official records of aggressive misconduct as a predictor of violent behaviour post-release. This includes the tendency for official records to provide limited detail regarding the nature and context of aggressive behaviour and underestimate the frequency with which it occurs. In light of these limitations, directing focus toward other behaviours that may indicate an increased or decreased risk of future violence may be useful.

Research aim three: The Offence Analogue and Offence Reduction Behaviour Rating Guide as a supplement to violence risk assessment in incarcerated offenders

Previous research has identified consistency between offence-related behaviour across custodial and community settings in offender populations (Clark, Fisher & McDougall, 1993), and highlighted the utility of behavioural monitoring as a means of enhancing risk assessment and management of high-risk offenders being released into the community (McDougall, Pearson, Willoughby & Bowles, 2012). Further, a significant association has been demonstrated between the frequency of offence-related and positive behaviour in custody, and criminal recidivism and positive behaviour post-release respectively (McDougall et al., 2012). The use of institutional behaviour to inform violence risk assessments in incarcerated offenders has received increased research attention over the past decade, with the growing focus on individualised case-formulation based approaches to violence risk assessment (e.g. Offence Paralleling Behaviour; Daffern et al.,2007; Daffern, Jones & Shine, 2010; Jones, 2004). Moreover, contemporary research has recognised the importance of studying dynamic risk factors (e.g. antisocial attitudes and interpersonal aggression) and risk assessment methods that facilitate re-appraisal and risk reduction (Douglas & Skeem, 2005).

Against this background Gordon and Wong (2009) introduced a structured methodology for identifying and monitoring the frequency of Offence Analogue Behaviours (OABs; behavioural manifestations of criminogenic needs) and Offence Reduction Behaviours (ORBs; prosocial behaviour said to represent risk reduction) in custodial environments. The OAB and ORB rating guide was designed as a supplement to risk assessments using the VRS (Wong & Gordon, 2000) and may also assist with the identification of treatment targets and the monitoring of treatment progress for

interventions aimed at violence risk reduction (Gordon & Wong, 2010). In this context, the third empirical study involved a preliminary investigation into whether the behaviours contained in the OAB and ORB rating guide could be identified within the custodial environment and with what frequency; with the subsequent aim of examining whether OABs and ORBs were related to violent recidivism following release into the community.

The results showed that OABs and ORBs can be identified; however, some are more frequently recorded than others. The frequency of these behaviours was recorded on a four-point scale including the following categories: 'never', 'seldom', 'somewhat frequent' and 'frequent'. More frequently identified behaviours (those with an increased number of ratings in the 'somewhat frequent' and 'frequent' categories) included OABs relating to criminal attitudes and cognitive distortions; these were often referred to by clinicians in pre and post treatment reports and session notes completed during the violence treatment program. Consistent with expectations, analogue behaviours linked to the VRS dynamic factors interpersonal aggression and violence during institutionalization were also among the behaviours recorded more frequently. Overall, few prosocial behaviours were recorded as 'frequent'. These findings may relate to the emphasis placed on monitoring and recording the occurrence of misconduct and antisocial behaviour within prison settings. Custodial staff must complete official documentation following acts of institutional misconduct; however the documentation of prosocial behaviour is typically at the discretion of custodial or clinical staff. This likely contributes to inconsistent and less frequent reporting of behaviour indicating prosocial change or behavioural improvement.

Custodial behaviours (OABs and ORBs) linked to five dynamic VRS factors were found to be significantly associated with an offender's time to violent criminal charge post-release. Most reflected prosocial behaviours: violent lifestyle ORBs, criminal attitudes ORBs, work ethic ORBs, and the security level of anticipated release institution ORBs. At this stage of data analysis a dichotomous variable indicating the presence or absence of OABs and ORBs was utilised. Offenders demonstrating ORBs linked to these factors showed a longer time to being charged with a violent offence following release compared with those offenders with no recorded ORBs for these factors. The OAB associated with violent recidivism was related to the VRS dynamic factor emotional control, indicating that offenders with documented behaviour relating to difficulties regulating their emotions and associated behavioural responses during imprisonment violently reoffended sooner than offenders with no record of this behaviour.

These findings suggest that the development and use of prosocial skills over the course of imprisonment may play an important role in reducing an offender's risk for future violence, and shows the importance of looking beyond the absence of antisocial behaviour when assessing violence risk. The ORBs captured by the factors outlined above include a range of overlapping behaviours that include but are not limited to: the rejection of attitudes that support a violent lifestyle (violent lifestyle; criminal attitudes), active participation and engagement in a violence treatment program (violent lifestyle, work ethic), commitment to and participation in educational and occupational opportunities (work ethic), and avoidance of antisocial or violent behaviour during imprisonment (violent lifestyle, criminal attitudes and security level of anticipated release institution). Security level of anticipated release institution ORBs included

behaviours that assisted the offender with a transfer to a lower security prison and captured several behaviours listed above (see chapter five for further description of the behaviours captured by the previously listed factors).

The OAB and ORB rating guide contains behaviour that is said to represent manifestations of a set of risk factors empirically and theoretically linked to violence. Consistent with this, the relationships outlined above were in the hypothesised direction; the presence of OABs was positively associated with time to violent charge, and the presence of ORBs was negatively associated with time to violent charge. However, it is important to note that independently, several factors did not emerge as significant predictors. This may be related to the visibility of particular behaviours in the prison environment and the likelihood that they are documented by staff and identifiable through file review. These issues reflect a methodological weakness of the current study that will be addressed in further detail later in this discussion. The present findings are preliminary and firm conclusions cannot be drawn regarding the use of the rating guide as a supplement to the VRS. However, these results prompt further investigation into the use of structured frameworks to facilitate the incorporation of institutional behaviour into assessments of dynamic risk in incarcerated offenders.

Implications

The use of institutional behaviour to inform risk assessments of incarcerated offenders. The present findings suggest that aggressive misconduct may be a useful source of information for clinicians to draw on when conducting risk assessments in custodial environments. Official records of misconduct are accessible to clinicians working in correctional settings and often provide the most recent record of an offender's behaviour (Cochran et al., 2012; Trulson et al., 2011). However, it is

evident that one or two aggressive incidents may not indicate increased risk for violence and should not be attributed excessive weight. Repeated aggressive behaviour during imprisonment may be viewed by clinicians as a marker of an offender's ongoing criminogenic needs, and indicate the need for an assessment to establish suitable interventions targeting these needs. However, beyond this, official records of misconduct may be of limited use as a measure of future violence risk. Official documentation tends to provide limited detail regarding the context of aggressive misconduct, preventing the identification of the individual and environmental factors contributing to the aggressive behaviour. Furthermore, it remains important for clinicians to consider the manner in which the custodial environment may promote or suppress aggressive behaviour when considering the relevance of aggression in prison to violence risk assessments.

Although further validation is required, a tool such as the OAB and ORB rating guide may help structure clinicians' observations of institutional behaviour. It may prompt clinicians to attend to risk-related behaviours relevant to the individual that may be more subtle than overt aggression (e.g. physical assaults and verbal abuse) and have the potential to otherwise go undetected. The rating guide also encourages attention toward evidence of behavioural improvement (e.g. the use of prosocial strategies for managing emotions or resolving interpersonal conflict), and facilitates the ongoing assessment of dynamic risk in incarcerated offenders (see Gordon and Wong, 2010, for a more detailed description of how the OAB and ORB rating guide may supplement risk assessments using the VRS).

The findings of the present program of research provide some evidence to support the consistency of aggression and risk-related behaviour across environments

(prison and the community) and the view that particular institutional behaviours may provide an indication of an offender's risk for future violence in the community. These preliminary findings suggest that an individualised assessment of the way in which an offender's criminogenic needs linked to violence may manifest behaviourally during imprisonment may inform the ongoing assessment of risk during their sentence and prior to release.

The importance of incorporating historical/static, dynamic and protective risk factors in a comprehensive risk assessment has been emphasised (de Ruiter & Nicholls, 2011; Douglas & Skeem, 2005; Rogers, 2000). In addition, contemporary theory and research has highlighted the potential utility of individualised case-formulation approaches to offender assessment and intervention (Daffern et al., 2010; Hart & Logan, 2011; Hart, Sturmey, Logan, & McMurran, 2011). In this context, the use of a structured methodology such as the OAB and ORB rating guide may provide a more individualised, supplementary component to existing procedures that employ formal risk measures, in particular the VRS.

A focus on alternative behaviours indicating ongoing risk or a reduction in risk may assist in overcoming several barriers to violence risk assessment in incarcerated offenders These barriers include the aforementioned influences of the prison environment on institutional behaviour, the potential for offenders to adapt to the prison environment, and the fact that historical, static risk factors do not change over the course of imprisonment; this is particularly problematic in the case of offenders convicted of a serious violent offence such as murder, and incarcerated for a long-term period (Clark et al., 1993). However, there may be practical limitations to the use of this guide and the implementation of behavioural monitoring in a custodial setting (Clark et

al., 1993). For instance, there may be a disparity between the behaviours to be monitored for risk assessment purposes and those routinely monitored by custodial staff within the correctional institution (e.g. misconduct). Also, the prison setting may actually inhibit the development and rehearsal of prosocial behaviours. Gordon and Wong (2010) encourage the involvement of both clinical and custodial staff across various settings within the prison, rather than restricting behavioural monitoring to clinical staff involved in the treatment of the offender. However, the consistent and objective monitoring of behaviour relies on adequate time, resources and communication amongst institutional staff, along with appropriate training for staff who are not familiar with the process of behavioural monitoring.

Implications for interventions aimed at risk reduction. Gordon and Wong (2010) propose that OABs may serve as treatment targets for interventions aimed at reducing an offender's risk for future violence. Lewis, Olver and Wong (2012) showed that change scores calculated based on the administration of the VRS before and after treatment were significantly associated with violent recidivism; with an increase in change associated with reduced violent recidivism. Further, their study revealed the dynamic nature of the VRS dynamic factors, and showed that change in these dynamic risk factors corresponded with reduced violent recidivism. It follows then, that behavioural manifestations of these risk factors may provide a useful focus for evidence-based interventions targeting criminogenic needs linked to violence. Moreover, monitoring for an increase in ORBs and a decrease in OABs (on risk factors relevant to individual offenders) will facilitate the re-appraisal of risk following treatment and provide useful feedback regarding treatment progress.

The importance of addressing behavioural patterns linked to offending as they manifest within the prison setting in treatment interventions has been highlighted (Gordon & Wong, 2010; Jones, 2004). Jones (2004) emphasises the benefits of identifying and reinforcing an offender's demonstration of prosocial behaviours in situations where they may previously have responded in an antisocial manner. In a similar vein, de Ruiter and Nicholls (2011) draw attention to several clinical advantages of reinforcing a client's strengths and protective factors. For instance, focusing on a client's strengths may serve to strengthen the therapeutic alliance and provide the individual with increased confidence regarding their ability to change their behaviour, and a direction for further growth in this regard (de Ruiter & Nicholls, 2011). Thus, the rating guide may provide a means of identifying and enhancing the development of a client's prosocial behavioural repertoire.

Implications for parole release decision making. The findings from chapter three provide feedback to the APB regarding the factors significantly associated with the parole decision. The factors that may indirectly influence parole decisions through the release recommendations provided by CCOs were also elucidated; one of which is aggressive misconduct during imprisonment. The findings suggest that board members should attend to repeated aggressive behaviour during imprisonment given this may be associated with an increased risk of future violence and indicate ongoing treatment need. However, it is important to note that the categories utilised in this research representing aggressive misconduct (zero, one or two, and three or more incidents) were categories developed on the basis of the frequency of aggressive misconduct observed in the current sample. These categories should not be used as an official threshold for other jurisdictions or offender populations.

Importantly, this research highlights a number of issues relating to institutional behaviour that may inform board members' considerations of an offender's risk for future violence, their determination of suitable parole conditions (including recommendations for treatment) and the communication of information to community correctional staff in charge of monitoring and managing an offender's behaviour post-release.

The findings emerging from the third empirical study suggest it may be useful for the APB of Victoria to attend to evidence of behavioural improvement and the development of prosocial skills as a measure of risk reduction. Focus may be directed toward ORBs associated with a slower time to violent recidivism, such as an offender's level of engagement and commitment to violence treatment (rather than program completion *per se*), education and occupational programs during imprisonment, along with their compliance with prison rules and regulations. Moreover, evidence that an offender has difficulty with regard to emotional control may indicate an ongoing criminogenic need within the offender. The parole board is in a unique position, which allows them to recommend participation in community treatment programs and monitor an offender's attendance and engagement in such programs in collaboration with assigned CCOs. Knowledge of an offender's ongoing criminogenic needs may therefore facilitate the board's ability to tailor treatment recommendations. Further, information regarding relevant risk related behaviours may be communicated to the CCO to be monitored in the community as a measure of risk and treatment progress.

Limitations

A key limitation of this research was the use of retrospective file review as the method of data collection. The use of official records of misconduct may lead to an

underestimation of the frequency of institutional aggression (Bottoms, 1999; Byrne & Hummer, 2007). This may be the result of a tendency for prisoners to under-report instances of institutional violence and the inconsistent and discretionary documentation practices of custodial staff (Byrne & Hummer, 2007; Schnek & Fremouw, 2012). The use of file information held particular limitations for recording OABs and ORBs in the third empirical study. There was a reliance on the documentation practices of custodial and clinical staff, which varied in detail. Moreover, behaviour linked to some dynamic factors was more readily identifiable from file information than others (see chapter five for further detail).

Another methodological limitation involved the use of official records of violent recidivism as an outcome measure. Research has indicated that official records under-estimate rates of offending in the community (Monahan et al., 2001). It is acknowledged that official records may not capture all violent recidivism; however, this was the most reliable measure of violent behaviour in the community available for use in the current research and remains a widely used outcome measure.

The use of pre-treatment VRS total scores as a measure of violence risk may be regarded as a further limitation given the inclusion of dynamic risk factors, which by definition may be subject to change and require re-assessment. The dynamic nature of these variables was illustrated in the research conducted by Lewis and colleagues (2012), the findings of which were discussed previously. This limitation relates particularly to the first and second empirical studies that incorporated an analysis of the VRS total score and violent recidivism. A post-treatment VRS total score would have provided a more accurate measure of an offender's risk for future violence prior to release. The decision to use the pre-treatment VRS total scores was based on the

inconsistent administration and recording of the VRS following an offender's completion of treatment. This appeared to be the result of several factors including the transfer of an offender to another prison during the treatment program (e.g. due to misconduct) or soon after treatment completion, and the release of an offender on parole soon after treatment completion. Although these factors may have hindered the ability of clinicians to re-administer the VRS, this limitation highlights the importance of regulating the ongoing administration of formal risk assessment measures in correctional settings to ensure a valid representation of an offender's risk for future violence is available prior to release.

A final limitation relates to the use of a sample drawn from one Australian state. This may limit the generalizability of the current research findings to other jurisdictions for several reasons. These may include but are not limited to, differences in 1) legislation governing parole release, procedural disparities between parole authorities and individual differences among parole board members, 2) differences in correctional environments, including processes for monitoring and managing institutional behaviour and 3) differences in the way offenders are supported and managed in the community. Together, the aforementioned limitations highlight several issues for consideration in future research, which are discussed below.

Future research directions

Parole decision making and prisoner re-entry. Contemporary research examining the factors that impact on parole decision making and parole performance is scarce, and the present research sought to meet this shortfall, with a focus on institutional aggression. The ongoing use of discretionary parole decision-making processes throughout Australia and internationally suggests further research needs to be

conducted to elucidate the factors considered in these decisions, and their link to parole performance and criminal recidivism.

The assessment of an offender's risk of recidivism has been highlighted as the paramount consideration of members of the APB (Adult Parole Board, 2012). To assist their deliberations, parole board members have risk ratings produced from formal risk assessment measures such as the Victorian Intervention Screening and Assessment Tool (VISAT; Corrections Victoria, 2012) and the VRS available to them. However, the manner in which these measures are considered and the relative weight attributed to these risk ratings is unclear. In line with recommendations from the Sentencing Advisory Council (2012), the development and provision of guidelines to assist board members to interpret and utilise these measures to inform their decisions may enhance the board's risk judgements.

Beyond this, empirical attention should be directed toward enhancing existing decision-making processes. This may be done by drawing on evidence that supports the use of structured approaches to risk-based decision making (Douglas, Yeomans, & Boer, 2005; Yang, Wong & Coid, 2010). The development of a structured decision-making framework that incorporates factors empirically linked to recidivism may provide a means of increasing consistency across parole decisions and encouraging procedural fairness (Gobeil & Serin, 2010; Petersilia, 2001; Sentencing Advisory Council, 2012). One such framework has been developed by Serin and colleagues as part of a broader program of research conducted at the Criminal Justice Decision-Making Laboratory in Canada, for use by the National Parole Board (Serin et al., 2012). This framework incorporates empirical evidence regarding factors linked to recidivism

and the professional judgement of parole decision makers. Future research may adopt a similar approach incorporating both generic and jurisdiction-specific risk factors.

In addition to increasing transparency and consistency across parole decisions, a decision-making framework based on empirically validated risk factors may increase the accountability of parole boards, providing a basis from which their release decisions can be defended (Serin et al., 2012). This may be of particular importance in circumstances where an offender commits a serious offence when on parole and the release decision is subject to external scrutiny.

Given the emergent findings illustrating the significant association between the release recommendations provided by CCOs to the parole board and the ultimate release decision, the factors that influence these decisions and the process through which such recommendations are reached requires further empirical scrutiny. Future research may look to develop and validate a structured framework to guide CCOs in their release recommendations to the board, with the aim of increasing accountability and consistency in recommendations (Samra-Grewal, Pfeifer & Ogloff, 2000).

The present program of research investigated the factors linked to the parole decision and their subsequent association with parole cancellation; however, the broader issue of prisoner re-entry was not examined, and several factors that may be linked to an offender's success or failure on parole were not considered (e.g. post-release variables). Further research is required to identify the factors associated with successful prisoner re-entry and an offender's desistance from crime, an area that has begun to receive much needed research attention (Serin, Lloyd & Hanby, 2010). The dynamic process of prisoner re-entry and the associated need for ongoing risk assessment informed by both proximal dynamic risk factors and protective factors has been emphasised (Serin,

Gobeil, Hanby, & Lloyd, 2012). A recently developed measure, the Dynamic Risk Assessment of Offender Re-entry (DRAOR; Serin & Mailloux, 2009) designed to measure dynamic risk in offender's re-entering the community is currently being utilised by Community Probation Services in New Zealand. Future research may explore the utility of a structured framework such as the DRAOR to assist community correctional staff in the ongoing risk assessment and management of offenders post-release.

Institutional behaviour and the assessment and management of violence risk. Aggressive misconduct was identified as a significant predictor of violent recidivism in the current sample of violent offenders in Victoria, Australia. However, it cannot be concluded that this relationship exists across jurisdictions. Further research is required to establish whether the findings of this research are consistent with other jurisdictions and offender populations. The identification of aggressive misconduct as a significant risk factor beyond formal measures of violence risk highlights the importance of considering the factors associated with aggression during imprisonment. Although this has been the subject of past research (Gendreau, Goggin & Law, 1997), further research examining the interaction between individual and environmental characteristics to produce aggressive behaviour within the prison context is required.

The OAB and ORB rating guide may provide a useful framework to structure observations of risk-related behaviour in custodial settings; however, the current findings are preliminary in nature and further research is required to validate its use as a supplement to risk assessments using the VRS. Future studies may adopt a prospective design and incorporate direct behavioural observation within the prison environment in addition to the use of file information. Ideally, behavioural observation would be

conducted by various institutional staff across prison settings and at various times as recommended by Gordon and Wong (2010). This may provide a more valid and reliable measure of an offender's violence related behaviour in prison. Additionally, future research may record the frequency of OABs and ORBs over at least two review periods, pre and post treatment, and look at the presence of OABs and ORBs during the course of offenders' sentences. This would allow for the frequency in the OABs and ORBs to be compared, and the utility of the rating guide as a measure of treatment progress to be examined.

Conclusion

The present research extends current knowledge of the role of institutional aggression in release decision making and the prediction of violent recidivism. Aggressive misconduct has been identified as a relevant risk factor in this population of violent offenders. However, institutional behaviour is complex and there are several issues of which parole decision makers and clinicians must remain cognisant when considering its relevance to risk for future violence. Official records of misconduct provide limited information to aide risk-related decision making, the management of offenders or treatment interventions aimed at reducing violence risk. These are key tasks faced by release decision makers, clinicians working in prison environments and correctional staff working with offenders post-release. Therefore, it is important to explore practical methods to assist staff to 1) identify behaviour that is relevant to an individual offender's level of risk, and 2) utilise this behaviour to appraise and monitor an offender's risk state. The present findings suggest that behavioural manifestations of criminogenic needs and their prosocial equivalents, as identified by the OAB and ORB rating guide, may provide a useful indication of behavioural improvement or ongoing

violence risk during imprisonment. While firm conclusions cannot be drawn regarding the utility of the OAB and ORB rating guide as a supplement to risk assessments using the VRS, the present findings suggest this warrants further investigation.

REFERENCES

Adult Parole Board (2012). *Adult Parole Board of Victoria 2011-2012 Annual Report.* Melbourne, VIC: Adult Parole Board, Department of Justice.

Ægisdóttir, S., White, M. J., Spengler, P. M., Maugherman, A.A., Anderson, L.A., Cook, R. S., Lampropoulos, G.K., Walker, B.S., & Cohen, G. (2006). The meta-analysis of clinical judgment project: Fifty-six years of accumulated research on clinical versus statistical prediction. *The Counseling Psychologist*, *34*, 341–382.

Andrews, D.A., & Bonta, J. (2006). *The Psychology of Criminal Conduct* (4th ed.). Cincinatti, OH: Anderson Publishing.

Australian Bureau of Statistics (2009). *National Offence Index, 2009* (cat. no. 1234.0.55.001). Canberra: Author.

Bahr, S.J., Harris,L., Fisher, J.K., & Armstrong, A.H. (2010). Successful Reentry: What Differentiates Successful and Unsuccessful Parolees? *International Journal of Offender Therapy and Comparative Criminology, 54,* 667-692.

Baksheev, G., Thomas, S.D.M., & Ogloff, J.R.P. (2010). Psychiatric disorders and unmet needs in Australian police cells. *Australian and New Zealand Journal of Psychiatry, 44*, 1043-1051.

Bonham, G., Janeksela, G., & Bardo, J. (1986). Predicting parole decision in Kansas via discriminant analysis. *Journal of Criminal Justice, 14*,123–133.

Bottoms, A. E. (1999). Interpersonal violence and social order in prisons. *Crime and Justice, 26*, 205–281.

Bushman, B.J., & Anderson, C.A. (2001). Is it Time to Pull the Plug on the Hostile Versus Instrumental Aggression Dichotomy? *Psychological Review, 108*, 273-279.

Byrne, J.M., & Hummer, D. (2007). Myths and realities of prison violence: a review of the evidence.. *Victims and Offenders, 2*, 77-90.

Caplan, J.M. (2007). What Factors Affect Parole: A Review of Empirical Research. *Federal Probation, 71*, 16-19.

Caplan, J. M., & Kinnevy, S. C. (2010). National surveys of state paroling authorities: Models of service delivery. *Federal Probation, 74*, 34–42.

Carroll, J. S. (1978). Causal attributions in expert parole decisions. *Journal of Personality and Social Psychology, 36*, 1501–1511.

Carroll, J. S., Weiner, R. L., Coates, D., Galegher, J., & Alibrio, J. J. (1982). Evaluation, Diagnosis, and Prediction in Parole Decision Making. *Law & Society Review, 17,* 199-228.

Clark, D.A., Fisher, M.J. & McDougall, C. (1993). A new methodology for assessing the level of risk in incarcerated offenders. *British Journal of Criminology, 33,* 436-448.

Cochran, J.C., Mears, D.P., Bales, W.D., & Stewart, E.A. (2012). Does inmate behaviour affect post-release offending? Investigating the misconduct-recidivism relationship among youth and adults. *Justice Quarterly,* DOI:10.1080/07418825.2012.736526.

Conley, J.A., & Zimmerman, S.E. (1982). Decision making by a part-time parole board: An observational and empirical study. *Criminal Justice and Behavior, 94*, 396-431.

Corrections Victoria (2012). *Sentence Management Manual: AC-1 - Victorian Intervention and Screening Assessment Tool (VISAT).* Retrieved from http://www.justice.vic.gov.au/resources/32ca87a2-b994-4ed7-a5d9-ede7a0dec42a/smm_ac1_visat.pdf.

Daffern, M. (2010). A structured cognitive behavioural approach to the assessment and treatment of violent offenders using offence paralleling behaviour. In M. Daffern, L. Jones, & J. Shine (Eds.), *Individualised approaches to offender assessment and treatment: The Offence Paralleling Behaviour framework* (pp.105-120). Chichester, UK: Wiley-Blackwell.

Daffern, M., Jones, L., Howells, K., Shine, J., Mikton, C., & Turnbridge, V. (2007). Editorial: Refining the definition of offence paralleling behaviour. *Criminal Behaviour and Mental Health, 17*, 265-273.

Daffern, M., Jones, L, & Shine, J. (2010). *Offence Paralleling Behaviour: A case formulation approach to offender assessment and intervention*. Chichester, UK: Wiley-Blackwell.

de Ruiter, C., & Nicholls, T.L. (2011). Protective Factors in Forensic Mental Health: A New Frontier. *International Journal of Forensic Mental Health, 10,* 160-170.

Dolan, M., & Fullam, R. (2007). The validity of the Violence Risk Scale second edition (VRS-2) in a British forensic inpatient sample. *The Journal of Forensic Psychiatry & Psychology, 18,* 381-393.

Douglas, K.S., & Kropp, P.R. (2002). A prevention-based paradigm for violence risk assessment: Clinical and Research Applications. *Criminal Justice and Behavior, 29,* 617-658.

Douglas, K.S., & Skeem, J.L. (2005). Violence Risk Assessment: Getting specific about

    being dynamic. Psychology. Public Policy, and Law, 11, 347-383.

Douglas, K.S., Yeomans, M., & Boer, D.P. (2005). Comparative validity analysis of

    multiple measures of violence risk in a sample of criminal offenders. *Criminal*

    Justice and Behavior, *32*, 479-510.

French, S.A. & Gendreau, P. (2006). Reducing Prison Misconducts: What Works!

    Criminal Justice and Behavior, 33, 185-218.

Gendreau, P., Goggin, C.E., & Law, M.A. (1997). Predicting prison misconducts.

    Criminal Justice and Behaviour, *24*, 414-431.

Gobeil, R., & Serin, R.C. (2009). Preliminary Evidence of Adaptive Decision Making

    Techniques Used by Parole Board Members. *International Journal of Forensic*

    Mental Health, 8, 97-104.

Gobeil, R., & Serin, R.C. (2010). Parole decision making. In J.M. Brown & E.A.

    Campbell (Eds.). *The Cambridge Handbook of Forensic Psychology.*

    Cambridge: Cambridge University Press.

Gordon, A., & Wong, S. (2009). *The Offence Analogue and Offence Reduction*

    Behaviour Rating Guide. Unpublished user manual.

Gordon, A., & Wong, S.C.P. (2010). Offence analogue behaviours as indicators of

    criminogenic need and treatment progress in custodial settings. In M.Daffern, L.

    Jones, & J.Shine (Eds.), *Offence Paralleling Behaviour: A case formulation*

    approach to offender assessment and intervention (pp. 171-184). Chichester,

    UK: Wiley-Blackwell.

Grattet, R., Petersilia, J. & Lin, J. (2008*). Parole Violations and Revocations in California*,Washington D.C.: U.S. Department of Justice. Accessed online at https://www.ncjrs.gov/pdffiles1/nij/grants/224521.pdf.

Grove, W.M., & Meehl, P.E. (1996). Comparative efficiency of informal (subjective, impressionistic) and formal (mechanical, algorithmic) prediction procedures: The Clinical-Statistical Controversy. *Psychology, Public Policy and Law, 2,* 293-323.

Grove, W.M., Zald, D.H., Lebow, B.S., Snitz,, B.E., & Nelson, C. (2000). Clinical versus mechanical prediction: A meta-analysis. *Psychological Assessment, 12*, 19-30.

Halsey, M. (2010). Imprisonment and prisoner re-entry in Australia. *Dialectical Anthropology, 34,* 545-554.

Hart, S.D., & Logan,C. (2011). Formulation of Violence Risk Using Evidence-Based Assessments: The structured professional judgment approach. In. P. Sturmey, & M. McMurran (Eds). *Forensic case formulation*. Chichester, UK: Wiley-Blackwell.

Hart, S., Sturmey, P., Logan, C., & McMurran, M. (2011). Forensic case formulation. *International Journal of Forensic Mental Health, 10,* 118-126.

Hayes, A.F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication methods and measures, 1,* 77-89.

Heil, P., Harrison, L., English, K., & Ahlmeyer, S. (2009). Is Prison Sexual Offending Indicative of Community Risk? *Criminal Justice and Behavior, 36,* 892-908.

Hood, R., & Shute, S. (2000). *The parole system at work: A study of risk based decision-making*, London: Home Office.

Huebner, B.M. & Bynum, T.S. (2006). An analysis of parole decision making using a

      sample of sex offender: A focal concerns perspective. *Criminology, 44,* 961-991.

IBM Corp. (2010). *IBM SPSS Statistics for Windows (Version 19.0).* Armonk, NY: IBM

      Corp.

Jones, L. (2004). Offence Paralleling Behaviour (OPB) as a framework for assessment

      and interventions with offenders. In A. Needs & G. Towl (Eds.), *Applying*

      psychology to forensic practice (pp.34-63). Oxford: British Psychological

      Society and Blackwell Publishing.

Jones, C., Hua, J., Donnelly, N., McHutchison, J. & Heggie, K. (2006). Risk of re-

      offending among parolees. *Crime and Justice Bulletin, 91,* January.

Kinnevy, S.C., & Caplan, J.M. (2008). *Findings from the APAI International Survey of*

      Releasing Authorities [Research Report]. Philidelphia, PA: Center for Research

      on Youth & Social Policy.

Krippendorff, K. (2004). Reliability in Content Analysis: Some common

      misconceptions and recommendations. *Human Communication Research, 30*,

      411-433.

Lattimore, P.K., Visher, C.A. & Linster, R. L. (1995). Predicting rearrest for violence

      among serious youthful offenders. *Journal of Research in Crime and*

      Delinquency, 32, 54-83.

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*, 150-164.

McDougall, C., Pearson, D.A.S., Willoughby, H., & Bowles, R.A. (2012). Evaluation of
the ADViSOR project: Cross-situational behaviour monitoring of high-risk
offenders in prison and the community. *Legal and Criminological Psychology*.
Advance online publication doi/10.1111/j.2044-8333.2012.02059.x.

Monahan, J. (1981). *The clinical prediction of violent behaviour*, Rockville, MD:
National Institute of Mental Health.

Morgan, K.D., & Smith, B. (2005). Parole release decisions revisited: An analysis of
parole release decisions for violent inmates in a southeastern state. *Journal of
Criminal Justice, 33,* 277-287.

Petersilia, J. (2001). Prisoner re-entry: Public Safety and Reintegration Challenges. *The
Prison Journal, 18*, 360-375.

Porporino, F.J. (1986). Managing Violent Individuals in Correctional Settings, *Journal
of Interpersonal Violence, 1*, 213-236.

Prochaska, J.O., DeClemente, C.C., & Norcross, J.C. (1992). In search of how people
change: applications to the addictive behaviors. *American Psychologist, 47*,
1102-1114.

Proctor, J.L., & Pease, M. (2000). Parole as institutional control: A test of specific
deterrence and offender misconduct. *The Prison Journal, 80*, 39-53.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders:
Appraising and managing risk* (2nd ed). Washington, DC: American
Psychological Association.

Rogers, R. (2000). The uncritical acceptance of risk assessment in forensic practice.
Law and Human Behavior, 24, 595-605.

Samra-Frewal, J., Pfeifer, J.E., & Ogloff, J.R.P. (2000). Recommendations for conditional release suitability: Cognitive biases and consistency in case management officers' decision-making. *Canadian Journal of Criminology, October,* 421 – 447.

Schenk, A.M., & Fremouw, W.J. (2012). Individual characteristics related to prison violence: A critical review of the literature. *Aggression and Violent Behavior, 17*, 430-442.

Sentencing Advisory Council (2012, March). *Review of the Victorian Adult Parole System* Report. Melbourne, VIC: Sentencing Advisory Council.

Serin, R.C., Gobeil, R., Hanby, L.J., & Loyd, C.D. (2012). Evidence-based practice in corrections: entry points for improvement in case-based decisions. *Corrections Today, 74*, 81-83.

Serin, R.C., Lloyd, C.D., & Hanby, L.J. (2010). Enhancing offender re-entry: An integrated model of enhancing offender re-entry. *European Journal of Probation, 2*, 53-75.

Serin, R.C., & Mailoux, D.L. (2009). *The Dynamic Risk Assessment for Offender Re-entry (DRAOR).* Unpublished user manual.

Steinke, P. (1991). Using situational factors to predict types of prison violence. *Journal of Offender Rehabilitation, 17*, 119-132.

Trulson, C.R., DeLisi, M., & Marquart, J.W. (2011). Institutional Misconduct, Delinquent Background, and Rearrest Frequency Among Serious and Violent Deliquent Offenders. *Crime & Delinquency, 57*, 709-731.

Webster, C.D., Douglas, K.S., Eaves, D., & Hart, S.D. (1997). *HCR-20: Assessing risk for violence (Version 2).* Vancouver, BC: Mental Health, Law, and Policy Institute, Simon Fraser University.

West-Smith, M., Pogrebin, M. R., & Poole, E. D. (2000). Denial of parole: An inmate perspective. *Federal Probation, 64,* 3-10.

Wong, S.C.P., & Gordon, A. (2000). *Manual for the Violence Risk Scale*. Saskatchewan, Canada: Univeristy of Saskatchewan.

Wong, S.C.P., & Gordon, A. (2006). The validity and reliability of the Violence Risk Scale: A treatment-friendly violence risk assessment tool. *Psychology, Public Policy, and Law, 12,* 279-309.

Yang, M., Wong, S.C.P., & Coid, J. (2010). The efficacy of violence prediction: A meta-analytic comparison of nine risk assessment tools. *Psychological Bulletin, 136,* 740-767.

APPENDICES

Appendix A: Data Collection Protocol

DATA COLLECTION PROTOCOL

Identifying information

Subject #:	Coder #:	Data collection date:

Sentencing information

Sentencing information is to be drawn from the PIMS Indent Report contained in the IMP file and/or the APB file.

Aggregate commencement date:

Earliest Eligibility Date (EED):

Aggregate end date (EDD):

Prison entry date/initial reception:

Aggregate term (sentence length):

Total no. of pre-sentencing days:

Demographic / Personal History

Date of Birth:
(dd/mm/yy)

Sex:

Ethnicity:
- ☐ 1 = Australian/Caucasian
- ☐ 2 = Aboriginal/Torres Strait Islander
- ☐ 3 = Other, specify:
- ☐ 99 = Don't know

Employment History:
- ☐ 1 = Never employed
- ☐ 2 = Frequently unemployed
- ☐ 4 = Full time employment lasting one year or more
- ☐ 99 = Don't know

History of alcohol abuse:
- ☐ 0 = No
- ☐ 1 = Yes
- ☐ 99 = Don't know

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History of drug abuse:	☐	0 = No
	☐	1 = Yes
	☐	99 = Don't know

Criminal History:

Code the following information from official Victoria Police criminal history records.

| Total number of prior adult convictions (counts): | | | |
| Total number of violent adult convictions (counts): | | | |

Number and type of each type of *violent ADULT convictions*:			
	Yes	Number of convictions	No
Murder/Manslaughter	☐		☐
Sexual assault and related offences	☐		☐
Assault/ Intentionally or recklessly cause injury	☐		☐
Abduction and kidnapping	☐		☐
Robbery/aggravated robbery/agg. burglary	☐		☐
Other violent convictions (e.g. driving offences occasioning death)	☐		☐

Number and type of each type of *non-violent ADULT convictions*:			
	Yes	Number of convictions	No
Import/export/manufacture/cultivate illicit drugs	☐		☐
Possess and/or use illicit drugs	☐		☐
Break and enter/burglary/theft	☐		☐
Attempt/obtain property by deception	☐		☐
Property damage/criminal damage	☐		☐
Driving-related offences	☐		☐
Receive/possess proceeds of crime	☐		☐
Fail to answer bail/breach CBO or parole/escape	☐		☐
Other non-violent convictions (e.g. posses weapon)	☐		☐

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Index Offence:

Type of offence:
Number of convictions:
Sentencing date (dd/mm/yy):

Murder/Manslaughter	☐
Assault (including recklessly/intentionally/negligently cause injury)	☐
Sexual Assault	☐
Robbery (including armed robbery, aggravated robbery, aggravated burglary)	☐
Other violent convictions (e.g. kidnapping, unlawful imprisonment, threaten to kill, driving offences occasioning death)	☐
Drug-related offences (trafficking, possession/cultivate of substances)	☐
Property-related offences (including criminal/property damage, burglary, theft)	☐
Breach of parole/community-based order	☐
Other non-violent offences (including handle/receive stolen goods, obtain property/financial advantage by deception, possession of a weapon)	☐

Institutional misconduct

1. Refer to PIMS incident reports for official records of misconduct during imprisonment.
2. Code incidents of misconduct for which the subject was the perpetrator (if applicable).
3. Code the date on which each incident occurred as appears on incident report.
4. Record the misconduct category applicable from the following:
    a. Physical violence
    b. Other aggressive misconduct
    c. Drug-related incidents
    d. Noncompliance with prison regulations
    e. Sexually-based incidents (code as other aggressive or physically violent if applicable)

Date	Misconduct Category	Incident description

Number of incidents of misconduct:

Total number of incidents of misconduct (sum of incidents from all categories):

Total number of incidents of other aggressive misconduct:

Total number of incidents of physical violence:

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Violence Risk Scale – Pre-treatment   **Date:**

Total static score:
Total dynamic score:
VRS Total score (static + dynamic):
VRS Risk Rating:

Indicate if Clinical Override was used:	☐	0 = No
	☐	1 = Yes
	☐	99 = Don't know

Violence Risk Scale – Post-treatment   **Date:**

Total static score:
Total dynamic score:
VRS Total score (static + dynamic):
VRS Risk Rating:

Indicate if Clinical Override was used:	☐	0 = No
	☐	1 = Yes
	☐	99 = Don't know

Completion of Violence Intervention Program (VIP)

Program name (Moderate or High Intensity):		
Location of program:		
Date entered tx:		
Date exited tx:		
Was the program successfully completed?	☐	0 = No
	☐	1 = Yes
	☐	99 = NA (Offender did not commence program)

Parole information

Prior parole (prior sentences)
No. of previous parole releases:
No. of previous parole cancellations:

Earliest Eligibility Date (EED):
Date of key parole review (4-8 weeks prior to EED):

Recommendations for Parole

Community Corrections Officer's Recommendation: ☐ 0 = No/Inconclusive
☐ 1 = Yes
☐ 99 = Don't know

Victim Submission

Did victim provide a submission to the parole board? ☐ 0 = No
☐ 1 = Yes
☐ 99 = Don't know

Do victim submissions support release on parole? ☐ 0 = No
☐ 1 = Yes
☐ 99 = Don't know

Parole Plan - See Parole Assessment Report (PAR)

Does the offender have confirmed
accommodation on release? ☐ 0 = No
☐ 1 = Yes
☐ 99 = Don't know
If yes, specify:

Does the offender have confirmed
employment following release? ☐ 0 = No
☐ 2 = Yes
☐ 99 = Don't know
If yes, specify:

Does the offender have family support? ☐ 0 = No
☐ 1 = Yes
☐ 99 = Don't know
If yes, specify:

Parole Decision

Was the offender granted parole at this parole review?	☐ ☐ ☐	0 = Denied 1 = Granted 99 = Don't know
If granted parole specify parole release date:		

Appendix B: Department of Justice Human Research Ethics Committee Approval

Department of Justice

Human Research Ethics Committee

Level 21, 121 Exhibition
Street Melbourne 3000
Telephone: (03) 8684 1514
Facsimile: (03) 8684 1525
DX210077

26 February 2010

Reference: CF/09/25959

Dr. Michael Daffern
Monash University, School of Psychology, Psychiatry and Psychological Medicine

Re: Institutional behaviour, treatment Responsivity and recidivism in violent offenders: Implications for parole decision making.

Dear Dr. Michael Daffern,

The Department of Justice Human Research Ethics Committee (JHREC) considered your request for amendment for the project *Institutional behaviour, treatment Responsivity and recidivism in violent offenders: Implications for parole decision making.* at its meeting on 23 February 2010 and granted full approval for the duration of the investigation. The Department of Justice (DOJ) reference number for this project is CF/09/25959.

Please ensure that the JHREC is notified immediately of any matter that arises that may affect the conduct or continuation of the project. To enable the JHREC to fulfil its reporting obligations you are asked to provide an Annual Report every 12 months (if applicable) and to report on the completion of your project. Annual Report and Completion of Research forms are available on the Justice Human Research Ethics website.

All future correspondence regarding this project must be sent electronically to ethics@justice.vic.gov.au and include the DOJ reference number and the project title. Hard copies of signed documents or original correspondence may be sent to The Secretary, JHREC at: Level 21, 121 Exhibition St, Melbourne, VIC 3000.

If you have any queries regarding this application, you are welcome to contact me on (03) 8684 1514 or email: ethics@justice.vic.gov.au.

Yours sincerely,

Dr Yasmine Fauzee
Secretary,
Department of Justice Human Research Ethics Committee

Victoria
The Place To Be

Appendix C: Monash University Human Research Ethics Committee Approval

MONASH University

Monash University Human Research Ethics Committee (MUHREC)
Research Office

Human Ethics Certificate of Approval

Date:	**14 December 2009**
Project Number:	CF09/2575 - 2009001488
Project Title:	**Reoffending and parole decision making in violent offenders**
Chief Investigator:	**Dr Michael Daffern**
Approved:	**From: 14 December 2009 To: 14 December 2014**

Terms of approval

1. MUHREC has granted an exemption under the guidelines approved under The Health Records Act 2001 (Vic) Statutory Guidelines on Research issued for the purposes of Health Privacy Principles 1.1(e) (iii) and 2.2 (g) (iii).
2. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
3. Approval is only valid whilst you hold a position at Monash University.
4. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
5. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
6. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
7. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from MUHREC. Substantial variations may require a new application.
8. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
9. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
10. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.
11. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.
12. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.
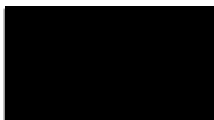
Professor Ben Canny
Chair, MUHREC

cc: Prof James Robert Ogloff; Ms Jessica Mooney; Ms Kate O'Brien

Appendix D: Victoria Police Human Research Ethics Committee Approval

Strategic Research Unit
Strategy and Policy

Level 5, Bldg C, 637 Flinders St.
Melbourne 3005
Victoria, Australia
Telephone 9247 3690
Facsimile 9247 6712
ethics.committee@police.vic.gov.au
www.police.vic.gov.au

18 February 2010

Dr M. Daffern
School of Psychology & Psychiatry
Centre for Forensic Behavioural Science
Monash University
505 Hoddle Street
Clifton Hill VIC 3068

Ref: VPHREC 96/10: Institutional behaviour, treatment responsivity and recidivism in violent offenders: Implications for parole decision making

Dear Dr Daffern,

Your application has been considered by members of the Victoria Police Human Ethics Committee (VPHREC) out of sessions.

I am now in a position to advise you that your application has received formal approval.

I draw your attention to the terms of the 'Declaration by researcher(s)' in your application, including the following requirements:
- To provide annual progress reports to VPHREC;
- To provide a final report and a copy of any published material at the end of the research project, and
- To notify VPHREC in writing immediately if any change to the project is proposed and await approval before proceeding with the proposed change.

If you have any queries or require further clarification please contact Simon Foster, Secretary to the VPHREC, on the contact details above.

Yours sincerely,

Simon Foster
Secretary,
Victoria Police Human Research Ethics Committee

Appendix E: Adult Parole Board of Victoria Approval

**ADULT PAROLE BOARD
OF VICTORIA**

Level 4
444 Swanston Street
Carlton Victoria 3053
DX 211768 Carlton
☎ Telephone (03) 9094 2111
☎ Victorian country callers 1300 766 946
☎ Interpreter Service. Call 131 450 and ask for the Adult Parole Board
Facsimile (03) 9094 2125
Email apb.enquiries@justice.vic.gov.au
Internet www.justice.vic.gov.au/paroleboard

Wednesday, 9 September 2009

The Ethics Committee
Department of Justice
Corrections Victoria
6/120 Collins Street
Melbourne 3000

Dear Ethics Committee Members

Letter of Support

On behalf of the Board's Chairperson, Justice Simon Whelan, I am pleased to write this letter of support for the proposed research by Monash University, Centre for Forensic Behavioural Science.

The aim of the proposed study is to investigate factors related to parole release decisions, study the predictive validity of the Violence Risk Scale (VRS), and examine correlates and predictors of recidivism in violent offenders, including participation in violent offender treatment. It will involve a retrospective archival analysis of case files from Corrections Victoria and the Board.

Subjects will be sentenced violent offenders assessed by Corrections Victoria clinicians with a specific, but not exclusive focus, on a subset of offenders considered for parole. Information regarding offending history, institutional behaviour and participation in treatment will be coded from case files. Information regarding post-release offending will be collected from Victoria Police. Logistic regression models will be used to investigate factors affecting release decisions. Survival analysis will be used to assess predictors of recidivism and establish the validity of the VRS. By identifying the factors related to parole release decisions and reoffending, this research will provide valuable information to Corrections Victoria staff and the Board.

The proposed study, if approved, will extend the existing body of knowledge on risk assessment and treatment of violent offenders by investigating whether institutional behaviour, treatment participation and treatment responsivity are indicative of performance in treatment and post-treatment

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outcomes (e.g. successful completion of parole and recidivism) and would assist the Board to consider what weight should be given to institutional behaviour, including aggression, and treatment participation.

I invite you to call me should you have any questions.

Yours faithfully

David Provan
<u>General Manager</u>

Appendix F: Corrections Victoria Approval

Department of Justice

Corrections Victoria

Strategy Unit, Research and Evaluation
22/121 Exhibition Street Melbourne VIC 3000
GPO Box 123A
Telephone: (03) 8684 6620
Facsimile: (03) 8684 6684
DX: 210085
CD/09/302460

Dr Michael Daffern
Senior Lecturer, Principal Psychologist
School of Psychology, Psychiatry and Psychological Medicine
Monash University
505 Hoddle Street
Clifton Hill   3068

Dear Dr Daffern

Violent Offenders and Parole Decision Making

The Research and Evaluation unit has considered your application to the Department of Justice Research Ethics Committee for you to undertake research on institutional behaviour, treatment responsivity and recidivism in violent offenders and the implications for parole decision making. I am pleased to inform you that Corrections Victoria (CV) supports your application and the research has the support and endorsement of the Manager, Statewide Clinical Services (Prisons).

Statewide Clinical Services strongly supports the proposal as it has the potential to provide a range of important data regarding outcomes of violent risk assessment and will assist to develop a better understanding of the decision-making processes of the Adult Parole Board. Further, the project may inform Corrections Victoria of a range of variables that need to be considered in terms of post program risk assessment that is clearly in the best interests of community safety.

Subject to you receiving approval from the Committee, once your research is completed, you will be required to submit a summary of your final research report to the Justice Human Research Ethics Committee. The Research and Evaluation Unit of Corrections Victoria would also appreciate an electronic copy of the final report.

If you have any queries regarding this correspondence, please contact Ann Bruce on 8684 6620. I wish you success in your research endeavour

Yours Sincerely

Christine Nolan
Deputy Commissioner
Strategic and Financial Services
cc: Ethics Secretariat

State Government
Victoria

Appendix G: The relationship between aggressive misconduct during imprisonment and parole cancellation: Additional data analysis.

In the first empirical study presented in chapter three, a bivariate chi-square analysis of the association between aggressive misconduct and parole cancellation was reported. These findings indicated that offenders with one or two aggressive incidents recorded during imprisonment were more likely to have their parole order cancelled (40%), compared to offenders with no recorded aggression (19.7%), and those with three or more recorded incidents of aggression (16.7%). In contrast, the findings reported in the second empirical study (chapter four) indicated that offenders who behaved aggressively on three or more occasions during imprisonment reoffended sooner than those with no recorded aggression while controlling for violence risk, age at the time of release and ethnicity. However, there was no significant difference between the time to being charged with a violent offence between offenders who were aggressive on one or more occasion during imprisonment, and those with no recorded aggression.

In order to explore these inconsistent findings further, the data relating to the parole board's decision to cancel an offender's parole order was reviewed. At the completion of the follow-up period, 69 offenders had completed their parole order or it remained ongoing (47.3%), 36 offenders (24.7%) had their parole order cancelled, the decision to cancel was deferred for 9 offenders (6.2%), no action was taken in the case of 2 offenders (1.4%), a formal warning was given to 22 offenders (15.1%) and 2 offenders were interviewed by the board (2%).

It was identified that in the case of nine offenders, the board decided to defer their decision as to whether or not to cancel an offender's parole order pending the

outcome of legal proceedings related to criminal charges laid during an offender's parole period. Of these nine cases, six related to offender's who had engaged in three or more aggressive acts during imprisonment, and three related to offender's with no recorded aggression.

In order to establish the impact of deferring the decision pending the outcome of legal proceedings, a new dichotomous variable labelled 'parole cancelled or decision deferred' (yes/no) was created. A Chi-square analysis was undertaken to examine the relationship between aggressive misconduct and this new outcome variable. The results indicated there was no significant association between aggressive misconduct during imprisonment and parole cancellation when deferral of the decision is considered, χ^2 (2) = 4.46, p = .108, V = 0.18. There was no change in the percentage of offenders who had their parole order cancelled among offenders with one or two aggressive incidents recorded during imprisonment (40%). However, offenders who were aggressive on three or more occasions now displayed comparable rates of cancellation (41.7%). Offenders who were not aggressive during imprisonment showed the lowest percentage of cancellations or deferral of the decision (23.9%).